# THE DIFFUSION OF INSTITUTE CONCEPTS BEYOND THE PARTICIPANTS OF AN NDEA INSTITUTE IN CRITICAL AND APPRECIATIVE READING

Thesis for the Degree of Ph. D.
MICHIGAN STATE UNIVERSITY
BERNYCE SCOTT EDMONDS
1968



This is to certify that the

#### thesis entitled

THE DIFFUSION OF INSTITUTE CON-CEPTS BEYOND THE PARTICIPANTS OF AN NDEA INSTITUTE IN CRITICAL AND APPRECIATIVE READING

presented by

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has been accepted towards fulfillment of the requirements for

Ph.D. degree in Education

Major professor

Date 8-30-68

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#### ABSTRACT

THE DIFFUSION OF INSTITUTE CONCEPTS
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by

Bernyce Scott Edmonds

## Problem

The problem of this research was to study the diffusion activities engaged in by thirty-five administrator,
specialist, and classroom teacher participants of a sixweek summer NDEA Institute in implementing Institute recommended concepts in their schools. The study investigated the
relationship that existed between participants' diffusion
activities and their professional positions, self-perception
of leader behavior, self-perception of diffusion responsibility, reasons for attending the Institute, and self-adoption
of Institute concepts. Extensiveness of diffusion activities
was measured by (1) the number of concepts diffused, and (2)
the number of concepts adopted by colleagues. The study was
conducted in three phases: during the operation of the Institute; seven months following the Institute; and ten months
following the Institute.

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# Procedure

Several techniques were employed in the study: observation and tests during phase one; a mailed reactionaire during phase two; and sample school visits during phase three. Data collected through these techniques were analyzed with the Kruskal-Wallis one-way analysis of variance and the Spearman rank correlation to test ten null hypotheses. The rejection region of the hypotheses was set at the .05 level of significance.

# Findings

The number of concepts diffused was significantly related to:

- 1. Professional position--Specialists, followed closely by administrators, diffused a greater number of Institute concepts than classroom teachers.
- 2. Self-perception of diffusion responsibility--Participants who expressed strong responsibility for diffusion during the Institute reported greater diffusion activity than those indicating less responsibility.
- 3. Institute attendance rationale--Participants whose objectives for attending the Institute were more altruistic reported greater diffusion activity than others.

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4. Self-adoption of Institute concepts--Classroom teacher participants who implemented a greater number of Institute recommended concepts in their own classrooms engaged in greater diffusion activity than those adopting fewer concepts.

The number of concepts diffused was not related to selfperception of leader behavior. Participants were quite homogeneous in scores earned on this variable.

The number of concepts adopted by colleagues was related only to one of the selected variables—teacher participants' self-adoption of Institute recommended concepts. In general, participants seemed not to have been in a tenable position to make accurate assessments of adoption.

Diffusion activities were minimal for most participants because of some seemingly built-in obstacles such as lack of time and administrative support for sharing activities, changes in school assignments subsequent to Institute attendance, and, perhaps most important, lack of planned diffusion strategies.

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bу

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# A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

College of Education

1968

G54041 3-18-69

# ACKNOWLEDGMENTS

It is a pleasure for the writer to express her sincere gratitude and appreciation to the following persons.

Dr. W. Robert Houston, Chairman of the Guidance Committee, for his service during the writing of this thesis as advisor, catalyst, and friend.

Dr. Charles A. Blackman and Dr. Shirley A. Brehm, members of the Guidance Committee, for their helpful advice and criticism.

Dr. Everett M. Rogers, member of the Guidance Committee, for his technical assistance, advice, and interest in this study.

Dr. Patricia Cianciolo, Director of the Institute, for her kind permission to use the Institute as the problem of this study.

Dr. Richard L. Marquard for his kind service during the oral examination as substitute committee member.

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#### CHAPTER I

### PROBLEM AND ORGANIZATION OF THE STUDY

The explosion of knowledge creates continual pressures on teachers to improve their competencies. day's skills are inadequate to teach in today's classrooms. The truths of yesterday's subject matter are being challenged and revised with unprecedented rapidity. A better understanding of how people learn provides new insights into teaching strategies. A wide variety of communication media are rapidly being introduced into schools. As a consequence of these rapid changes, teachers are often required to utilize information and instructional media that even recent graduates of teacher education programs may be unprepared to handle. 1 The problem is particularly crucial at the elementary school level where approximately one-third of the teachers received their preservice education at least twentyfive years ago. Moreover, as recently as 1965, 15.1 percent of elementary school teachers did not have a bachelor's degree.2

lwillard Abraham, A Time for Teaching (New York: Harper and Row Publishers, 1964), pp. 102-3.

National Education Association, "Status of Public-School Teachers, 1965," NEA Research Division, Research Bulletin, XLIII (October, 1965), 68-70.

The need for continual in-service education is evident.

According to the findings of one survey, three hundred seven large school systems make salary increments for teachers contingent upon administrative approval of their professional growth activities. Further, enrollment in college courses for credit, and participation in in-service education programs sponsored by the employing school system head the list of activities that are accepted as evidence of professional growth. One has only to visit any college campus during the evening hours of the academic year or during the summer terms to observe hundreds of teachers attending classes. Others participate in school district sponsored in-service programs, attend institutes and conferences, and engage in experimental studies to test new curricular materials or techniques designed to increase pupil achievement.

For most of the first 150 years, the United States government left education almost completely to the states. Within the past few years, the federal government has become more active in educational matters. This is reflected in an increased budget. In 1940, federal expenditures in education were only about one hundred million dollars. By 1950 this budget expenditure had climbed to about five hundred

National Education Association, "Professional Growth Requirements," NEA Research Division, Research Bulletin, XLIV (December, 1966), 104.

million dollars. 4 In 1961, the Department of Health, Education, and Welfare alone budgeted nearly five hundred eighteen million dollars for educational purposes. 5 It was estimated that federal monies expended for education reached and exceeded the two billion dollar level by 1965. 6 Continued federal involvement and expenditures can be anticipated in the future.

One of the most widely employed methods by the federal government for improving teachers' competencies is the federally funded Institute. Typically, teachers participate full-time in a narrowly specialized field of study. The number and variety of institutes grows yearly. Impact of one part of the National Defense Education Act (NDEA) vividly illustrates this phenomenal growth. In the summer of 1959, 930 elementary and secondary school language teachers attended twelve foreign language institutes. In the summer of 1961, the number of language institutes had increased to sixty-eight with an enrollment of 3,595 language teachers. 7

<sup>&</sup>lt;sup>4</sup>R. Freeman Butts and Lawrence A. Cremin, <u>A History of Education in American Culture</u> (New York: Holt, Rinehart and Winston, Inc., 1953), p. 580.

<sup>&</sup>lt;sup>5</sup>Abraham, <u>Teaching</u>, p. 235.

<sup>6</sup>Calhoun Collier, et al., Teaching in the Modern Elementary School (New York: Macmillan company, 1967), p. 53.

<sup>7</sup>U. S., Department of Health, Education, and Welfare, Office of Education, Report on the National Defense Education Act. Fiscal Year 1961 and 1962 (Washington, D. C.: Government Printing Office, 1962), p. 39.

In 1964, seven new fields were included in the NDEA Institute program when a new act was substituted for the section alluded to above. Under the new provisions, approximately 20,000 elementary and secondary school personnel attended five hundred institutes in a variety of content and specialist areas in 1965. This trend was expected to continue throughout the remaining two years of the program.

A basic assumption of such institutes is that participants will influence others. Institute objectives and strategies should be diffused beyond the population in attendance. This was such an important consideration that improved criteria for selecting participants was a major concern of the on-site evaluators of the 1965 reading institutes. A summary report of their views stated:

Doubt was expressed as to whether or not the participants were sufficiently capable people to provide leadership in their home schools either by demonstration of skills learned or by informal discussion. If institute participants are expected to be potential influences of instructional practice in school systems, the selection criteria might well be re-examined.9

National Education Association, Department of Audiovisual Instruction, EMIE: Educational Media Institute Evaluation Project, Evaluations of Summer 1965, NDEA Institutes (Washington: Department of Audiovisual Instruction, November, 1965), Ch. 7, p. 7.

<sup>9</sup>Final Report: Evaluation of National Defense Education Act Institutes for Advanced Study in Reading (Newark, Delaware: International Reading Association, 1965), pp. 78-9.

Evaluators of the instructional media institutes expressed a similar point of view.

Selection of participants is critically important to the success of institutes. . . . Consideration should be given to the desirability of inviting key individuals to apply. . . . selection of participants should be based more on ability than upon job function. 10

In addition, the evaluators deplored the lack of well articulated plans for follow-up studies of participants. To what extent did the institute change participants' teaching strategies? To what extent did it affect the colleagues of participants? While little research has studied changes in participants following an institute, even less has tested the extent to which important concepts of institutes are diffused to other educators.

The purpose of the present study was to investigate the diffusion patterns resulting from one such government-sponsored institute. The study was based upon the assumption that institutes are related to changes in important teacher behaviors; that participants upon returning to their schools share with their colleagues some of the knowledge, skills and enthusiasm gained in the institute; and try to influence colleagues to adopt some of the recommended practices. What has long been needed is a clearer understanding of the nature and strength of institute participants!

<sup>10</sup> National Education Association, EMIE, Ch. 7, p. 8.

influence upon colleagues. Further, more definitive information is needed concerning the strategies employed by participants in implementing institute concepts in their schools.

# Factors Related to Diffusion Effectiveness

Previous research studies have identified several factors that may be related to diffusion effectiveness. Three of these, social structure, leadership and leader behavior, and situational factors, have contributed information of value to this study.

That one's position in the social structure of his community determines to a great extent his reaction to exposure to new ideas and innovations is adequately supported by current literature. For example, a comparative study of research methodology and findings in several fields by Katz, Levin and Hamilton revealed that social structure is a crucial ingredient in diffusion studies. They emphasized this finding in stating:

A diffusion study should classify individuals according to their place in a social structure. What we need to know is when this kind of differential placement in the social structure is also related to differential access to, or acceptance of, influence stemming from outside the group.ll

Following this line of investigation, Carlson found a

ll<sub>E</sub>. Katz, M. L. Levin, and H. Hamilton, "Traditions of Research on the Diffusion of Innovation," American Sociological Review, XXVIII (April, 1963), 246.

functional relationship between a superintendent's rate of adoption of educational innovations and his position in the social structure of superintendents in his county. 12

Social structure variables take on added significance when viewed from the vantage point of two key concepts in diffusion studies: the flow of communication, defined as the transfer of information from person to person; and opinion leaders, defined as individuals who are influential in approving or disapproving new ideas. 13 Accumulated findings of research studies in mass communication and sociology have shown opinion leaders to be somewhat higher in social status than are their followers. 14, 15 That is, advice-giving tends to be downward in the communication network of a social group and advice-seeking tends to be upward. This implies that opinion leaders not only filter the information they pass on to their followers, but they also facilitate or hinder the communication process.

Closely related to their somewhat higher social status are other characteristics which tend to distinguish opinion

<sup>12</sup>Richard O. Carlson, Adoption of Educational Innovations (Eugene, Oregon: Center for the Advanced Study of Educational Administration, University of Oregon, 1965), p. 28.

York: Free Press of Glencoe, Diffusion of Innovations (New York: Free Press of Glencoe, 1962), pp. 208-9, 214.

<sup>14</sup>Ibid.

<sup>15</sup> Carlson, Adoption of Educational Innovations, p. 43.

leaders from their followers. Opinion leaders are characterized by gregariousness and accessibility. They are in frequent contact with ideas and influence which come from outside their social system, yet they adhere closely to the social systems' norms of behavior. They visit other cities, use technically accurate sources of information such as the mass media, and make themselves "specialists" in an area (topic) of concern. Accordingly, they are more innovative than are their followers. 16

Leadership can be ascribed, delegated or assumed. The methods employed in the designation of leadership affect greatly the outcomes of the leadership dependency. One method, the self-designating technique, appears to be consonant with current emphases in perceptual psychology on self-perceptions. Of this method Rogers states: "One advantage of the self-designating technique is that it measures the individual's perception of his opinion leadership, which is actually what affects his behavior. . . . if men define situations as real, they are real in their consequences." 17

The implications of the above statement are multifarious. First, leadership is an activity and is largely

<sup>16</sup>Wilbur Schramm, ed., The Science of Human Communication (New York: Basic Books, Inc., Publishers, 1963), pp. 98-9.

<sup>17</sup> Rogers, <u>Diffusion of Innovations</u>, pp. 229-30.

situational; hence, an individual who is advertently or inadvertently placed in a leadership role must view himself
as a leader in that situation. Second, those who are charged
with the responsibility for developing "leaders" must be
concerned with the view that these potential leaders have of
"self as instrument," defined as one's perception of his
ability to use himself, his knowledge, and the resources at
hand to solve the problems for which he is responsible
(whether or not it is creative, capable, flexible, confident,
responsible, and resourceful). 18 Third, the self-designating
technique has been used not only in identifying leaders but
also in having leaders describe how they behave as leaders. 19
Here again, the implication appears to be "we are largely
what we perceive." Many opinion leaders are self-designated
leaders.

Lin and others employed the "self as instrument" concept in an investigation of change orientation of teachers in three Michigan high schools. Among the variables found to be significantly related to change orientation were several that centered around the teachers' self-perceptions. Self-designated opinion leadership was related to time of adoption

Arthur W. Combs, The Professional Education of Teachers: A Perceptual View of Teacher Preparation (Boston: Allyn and Bacon, Inc., 1965), pp. 8-9.

<sup>19</sup> Andrew W. Halpin, The Leadership Behavior of School Superintendents (Chicago: Midwest Administration Center, University of Chicago, 1956), p. 30.

of schedule-modification at the .01 level of significance.20

Psychologically, the value of the "self as instrument" concept in leadership studies cannot be overemphasized.

Research has demonstrated the temporal nature of an individual's behavior.

. . . all behavior of a person is the direct result of his field of perceptions at the moment of his behaving. . . . his behavior at any instant is the result of 1) how he sees himself, 2) how he sees the situations in which he is involved, and 3) the interrelations of these two.21

In light of the foregoing statement, it seems extremely important that individuals who assume leadership responsibilities have accurate perceptions of themselves and the tasks with which they are confronted. They must be able to differentiate clearly their role behavior in terms of specific situations. On-site evaluators of 1965 reading institutes blamed participants' lack of demonstrable capability of leadership on the fact that participants did not know how or why they were selected to attend an institute.<sup>22</sup> In

Nan Lin, et al., The Diffusion of an Innovation in Three Michigan High Schools: Institution Building Through Change. Project on the Diffusion of Educational Practices in Thailand, Research Report Number 1 (East Lansing: Institute for International Studies in Education and Department of Communication, Michigan State University, December, 1966), pp. 70-2. 93.

<sup>21</sup> Combs, The Professional Education of Teachers, p.

Final Report: Evaluation of National Defense Education Act Institute for Advanced Study in Reading, pp. 74, 83.

brief, they did not know that they were expected to influence instructional practices in their schools. If this expectation had been known prior to enrollment, is it possible that the participating population would have been different?

The crucial nature of goals as a situational factor in fostering or hindering effective use of institute and workshop concepts has been found in assessments made of participants' knowledge of institute objectives, their objectives in attending an institute, and their plans for using institute experiences. For example, in a pre-and-postinstitute rating during the summer of 1965, approximately 500 participants of instructional media institutes were asked to rate twelve broad goals in terms of importance of the goals and participants' self-perceived competence in achieving the goals. Findings of post-institute assessments revealed that participants indicated more perceived growth in goals that previously had been rated most important. 23 It appears that selectivity was operative. That is, participants appeared to have been imbued with the zeal to accomplish those tasks that were more closely related to their objectives in attending an institute.

In an investigation of more narrow scope, a similar finding was made by Karbal. He observed that objectives that were rated highest by participants on three separate

National Education Association, EMIE, Ch. 5, p. 6.

ratings were more often than not translated into worthwhile production. 24

Not infrequently the significance of objectives to participants is seen in retrospect. In quest of ways and means for improving workshops, a subcommittee of the North Central Association found a representative sample of respondents from a population of about 2,000 who suggested screening participants on the basis of their objectives for attending a workshop. Further evidence of the centrality of objectives can be found in practically every discussion in which a change in behavior is at issue.

A consideration of the factors discussed above led to the formulation of the following questions: To what extent does the diversity of professional positions held by participants influence achievement of NDEA Institute goals? What perceptions do institute participants have of their behavior as leaders? What reasons do participants give for attending an institute? What do they perceive to be their major responsibilities for improving instructional practices in their schools? To what extent do they try to influence the instructional practices of their colleagues? The answers

Harold T. Karbal, "The Effectiveness of a Workshop as a Means of In-Service Education of Teachers" (Unpublished Ph.D. dissertation, Wayne State University, 1963), pp. 46-52.

<sup>25</sup> James R. Mitchell, "The Workshop as an In-Service Education Procedure," North Central Association Quarterly, XXVIII (April, 1954), 448.

to these and similar questions would help clarify the speculation that has long existed concerning the outcomes of institute participation. Generally, institutes are funded on the premise that a great many more persons than just participants profit from this important medium of instructional improvement.

# The Problem of the Study

The importance of diffusion of institute concepts to a wider audience cannot be overestimated. Factors which appear to be related to diffusion effectiveness include the position of the participant in his school system, his self-perception of his leadership behavior, his perception of his responsibility for diffusing institute concepts, his objectives for attending the institute, and his self-adoption of institute concepts.

Specifically, the study was designed to test ten hypotheses, each of which was stated in the null form.

1. H<sub>O</sub> There is no difference in extensiveness of diffusion activities among administrators, specialists, and classroom teachers.

- H<sub>1</sub> The three groups of educators are not the same in extensiveness of diffusion activities.
- 2. H<sub>O</sub> There is no difference in extent of adoption of institute concepts by colleagues of administrator, specialist, and classroom teacher participants.
- H<sub>1</sub> Extent of adoption of institute concepts by colleagues is not the same for the three groups of educators.

- 3. H<sub>O</sub> There is no relationship between extensiveness of diffusion activities and differences among participants in self-perception of leadership behavior.
- H<sub>1</sub> Extensiveness of diffusion activities is positively related to differences among participants in self-perception of leadership behavior.
- 4. H<sub>O</sub> There is no relationship between extent of adoption of institute concepts by colleagues and differences among participants in self-perception of leadership behavior.
- H<sub>1</sub> Extent of adoption of institute concepts by colleagues is positively related to differences among participants in self-perception of leadership behavior.
- 5. H<sub>O</sub> There is no relationship between extensiveness of diffusion activities and differences among participants in self-perception of responsibility for diffusion of institute concepts.
- H<sub>1</sub> Extensiveness of diffusion activities is positively related to differences among participants in self-perception of responsibility for diffusion of institute concepts.
- 6. H<sub>O</sub> There is no relationship between extent of adoption of institute concepts by colleagues and differences among participants in self-perception of responsibility for diffusion of institute concepts.
- H<sub>1</sub> Extent of adoption of institute concepts by colleagues is positively related to differences among participants in

- self-perception of responsibility for diffusion of institute concepts.
- 7.  $H_0$  There is no relationship between extensiveness of diffusion activities and differences among participants in reasons for attending the institute.
- H<sub>1</sub> Extensiveness of diffusion activities is positively related to differences among participants in reasons for attending the institute.
- 8. H<sub>O</sub> There is no relationship between extent of adoption of institute concepts by colleagues and differences among participants in reasons for attending the institute.
- H<sub>1</sub> Extent of adoption of institute concepts by colleagues is positively related to differences among participants in reasons for attending the institute.
- 9. H<sub>O</sub> There is no relationship between extensiveness of diffusion activities and self-adoption of institute concepts by teacher participants.
- H<sub>1</sub> Extensiveness of diffusion activities is positively related to self-adoption of institute concepts by teacher participants.
- 10. H<sub>O</sub> There is no relationship between extent of adoption of institute concepts by colleagues and self-adoption of institute concepts by teacher participants.
- H<sub>1</sub> Extent of adoption of institute concepts by colleagues is positively related to self-adoption of institute concepts by teacher participants.

Some descriptive information was considered pertinent to the hypotheses. To achieve this, several ancillary questions provided a framework for the collection of information. The questions were:

- 1. Which concepts were used and diffused most frequently by Institute participants?
- 2. With how many people were each of the Institute concepts shared?
- 3. Which diffusion activities were considered by Institute participants to have been most effective?
- 4. Which diffusion activities were used most frequently by Institute participants?
- 5. What factors were identified by Institute participants as limiters of diffusion?

# Specific Rationale

In general, research tends to emphasize situational factors in the study of leader behavior. 26 Leadership is defined in terms of behavior rather than a person or position. That is, the type and character of a given situation largely determines the choice of a leader. This approach tends to remove the restraints of job assignment or classification as an important factor in the concept of leadership. In the

<sup>26</sup> Gordon N. Mackenzie, et al., <u>Instructional Leader-ship</u> (New York: Bureau of Publications, Teachers College, Columbia University, 1954), pp. 14-15.

absence of specific data to the contrary, it is assumed that individuals occupying a diversity of professional positions in their school and who are accepted as participants in NDEA Institutes have the potential for leadership.

"Perception" and "means" are key ideas in the situational approach to leadership. A potential leader must be perceived as possessing certain means that are needed by an individual or group to achieve a desired goal. Similarly, a potential leader must perceive his own position vis a vis means and capability. 27, 28, 29 It seems reasonable to hypothesize that acquirement of the means (ideas, information and skills) of leadership will negate or minimize the effects of participants' preconceived ideas of their leadership ability on diffusion activities.

The literature supports the idea that goals held by participants prior to institute participation influence subsequent use of institute concepts. 30, 31, 32 Despite these

<sup>&</sup>lt;sup>27</sup>Rogers, <u>Diffusion of Innovations</u>, pp. 229-30.

<sup>28</sup> Schramm, The Science of Human Communication, p. 98.

<sup>&</sup>lt;sup>29</sup>Mackenzie, <u>Instructional Leadership</u>, pp. 11-12.

<sup>30</sup> National Education Association, EMIE, Ch. 5, p. 6.

<sup>31</sup> Mitchell, "In-Service Education Procedure," p. 448.

<sup>32</sup> Karbal, "In-Service Education of Teachers," p. 14.

findings, it is hypothesized that participants who differ in perception of their responsibility for diffusion and their reasons for attending the Institute will expend comparable amounts of time and energy in diffusion activities. The rationale for these hypotheses is based upon the assumption stated on page 5 that institutes are related to changes in important teacher behaviors. As suggested by Karbal: "It may well be that his own self-esteem has been enhanced or it may be some particular piece of knowledge that he feels is worthwhile has created in him a desire to change something he is doing in this teaching."33 Institutes have long been believed to create a desire within an individual to do something constructive, differently. Under the stimulation of good leadership, and association with people who share common concerns, it is likely that goals become more altruistic and oriented toward a wider population. Too, an important consideration in the case of this particular institute is that participants were alerted to and periodically reminded of the Institute's objective of diffusion.

# Definition of Terms

Specific terms used in this study are defined as follows:

<u>Diffusion</u> "is the process of transmitting a message [object, idea, information, etc.] from a source system, be

<sup>&</sup>lt;sup>33</sup><u>Ibid.</u>, p. 76.

it a person or aggregate, through a second system, which acts first as a receiver then as a source, to a third and to later systems."34

<u>Innovation</u> is an idea or object that is perceived as new by an individual or a group.

Adoption is the acceptance and use of an immovation.

Extensiveness of Diffusion Activities refers to the number of contacts made by an individual in sharing an innovation.

<u>Leadership</u> is "the behavior of an individual when he is directing the activities of a group toward a shared goal."<sup>35</sup>

Self-perception refers to the view a person has of himself and his personal, social and professional attributes in a given setting.

Situational Factors refer to stimulus conditions that cause a person to modify his habitual mode of behavior from time to time.

Administrator is a person whose professional position includes executive as well as general supervisory responsibilities.

<sup>34</sup>Lin, "Institution Building Through Change," p. 12.

<sup>35</sup>Ralph M. Stogdill and Alvin E. Coons, eds., <u>Leader Behavior</u>: <u>Its Description and Measurement</u>, Research Monograph No. 88 (Columbus: Bureau of Business Research, Ohio State University, 1957), p. 7.

Specialist is a person who teaches or supervises the work of others in a specific subject matter area of instruction.

# Overview of Procedure and Analyses

The study was designed to study thirty-five administrator, specialist, and classroom teacher participants of a six-week summer Code 3 NDEA Institute for advanced study for teachers of reading in grades four through nine. 36 The study was conducted in three phases: during the operation of the Institute (Phase one); seven months following the Institute (Phase two); and ten months following the Institute (Phase three).

Three instruments, two constructed by the investigator, procured data during phase one for the independent variables (leader behavior, diffusion responsibility and reasons for attending the Institute). Information for a fourth variable (professional position) was procured from participants, institute application data. A two-part reactionaire was constructed, pretested and mailed to each participant in phase two. Part A of the reactionaire collected information to test hypotheses 9 and 10. Part B collected information for the dependent variables (number of practices diffused and number of practices adopted) and was used in testing all hypotheses. Institute recommended practices and procedures were used in deriving items for

<sup>36</sup>Code 3 Institutes were designed for those individuals who had no more than one course in reading. The great majority of approved Institutes were of this type.

the reactionaire. All participants were requested to check each practice and procedure in Part B that had been (a) shared with colleagues, and (b) adopted by colleagues. Class-room teacher participants (the only respondents to Part A) were requested to check those practices and procedures they had adopted themselves. An on-site reliability assessment of information collected with the reactionaire was made in seven schools in Michigan during phase three. An interview guide and a short form of the reactionaire were used by the investigator in school visits.

The Kruskal-Wallis one-way analysis of variance by ranks was used to test hypotheses 1 and 2. Hypotheses 3 through 10 were tested with the Spearman rank correlation coefficient.

# Limitations of the Study

The investigator was aware of several limitations of the study that could not be avoided for various reasons. The study was limited to participants of one Institute. Typically, in a diffusion study the receivers of innovations are contacted to find out when designated innovations were received and adopted. Contacting receivers in this case would have resulted in the collection of unwieldy amounts of data since a number of participants worked with more than a hundred individuals in their school systems. Too, visits should have been made to schools of all participants instead of a

sample. However, the widely dispersed geographical areas from which participants were drawn made school visits unfeasible. Another limitation involved the subjectivity of information procured with a reactionaire.

The investigator's presence as an observer-participant in the Institute may have influenced subjects' perspective of the Institute goals and of the importance of diffusion. The conclusions of this study are limited to the extent that these factors influenced results.

# Organization of the Thesis

This chapter presented background information concerning the study. The problem and rationale of the study were discussed at length. An overview of procedure and analyses was presented and specific limitations of the study were noted. A review of the literature is presented in Chapter II. The discussion is organized around three major topics: diffusion strategies; instructional leadership and educational innovations; and the implications from the literature for the design of the present study.

The research design and procedures of the study are discussed in Chapter III. The Institute and participating population, the preparation and administration of the instruments used, and follow-up procedures are described in detail.

The analyses of data and findings are discussed in Chapter IV. A summary of findings, conclusions, and implications and recommendations are presented in Chapter V.

#### CHAPTER II

### REVIEW OF RELATED LITERATURE

Since the present study was concerned primarily with the diffusion of selected educational innovations, a review of pertinent diffusion studies is an appropriate beginning for Chapter II. Section two reviews the literature on instructional leadership as it relates to the role of administrators, supervisory personnel, and classroom teachers in effecting improvement of instructional practices, a second purpose of the present study. The third section summarizes information and implications from the literature that were useful in the design of the study.

# Diffusion Research

Diffusion has been defined as "the process of transmitting a message (object, idea, information, etc.) from a source system, be it a person or aggregate, through a second system, which acts first as a receiver then as a source, to a third and to later systems." This definition implies the presence of three indispensable elements in the diffusion process: (a) a source; (b) a message channel; and (c) a

Lin, "Institution Building through Change," p. 12.

receiver. The channels through which new ideas and practices spread from their sources of origin to appropriate receivers has been studied by researchers in many contexts in many fields. Continuous and programmatic study of this phenomenon is called a diffusion research tradition. Four of the several well-known traditions outside the field of education have been selected for review because of their sociometric approach (exploration of interpersonal relationships) to problems of diffusion. These are rural sociology, medical sociology, marketing, and industry. Since rural sociology employed sociometric techniques earlier and more widely than did the other fields<sup>2</sup> and since findings in this field are representative of findings in the others, most attention will be directed toward diffusion research in rural sociology. Early studies in this tradition emphasized demonstrators used to give farmers firsthand experiences with recommended practices.

Diffusion Research in Rural Sociology

Dating back to the early nineteen hundreds, "result demonstration" as a diffusion technique has been continuously given vitality by agricultural extension workers. Traditionally, they engaged in farm and home improvement projects with a few families who in turn served as demonstrators for

<sup>2</sup>Schramm, The Science of Human Communication, pp. 85-86.

their neighbors. The basic assumption of the technique was that people were influenced by what they saw. Thus, the process of diffusion of recommended practices was set in motion.

Successful use of the technique depended upon close association of demonstrator and followers. In general, extension workers, who were viewed by farmers as change agents, could not achieve the degree of intimacy with farmers that bred trust and imitation. On that ground, an intermediary was used. This was usually someone who knew and lived in the community with the target audience. The closer the demonstrator lived to this audience the more effective he was in influencing their behavior. Generally, the distance between them was no more than two miles. As a result, a given community was likely to have several demonstrators.

Since a linear relationship did not exist between demonstrations, distance, and adoption, much research attention was focused on other factors and conditions that influenced results of demonstrations. Among the factors that

Wilfrid C. Bailey, "The Dilemma of Demonstrations," International Journal of Comparative Sociology, VI (September, 1965), 256.

<sup>&</sup>lt;sup>4</sup>Ibid., 262-63.

<sup>&</sup>lt;sup>5</sup>Charles M. Hardin, "'Natural Leaders' and the Administration of Soil Conservation Programs," Rural Sociology, XVI (September, 1951) 281.

were explored or identified were several that related to the personal characteristics of demonstrators utilized by extension change agents. Others concerned the role of demonstrators in the diffusion-adoption process. These will be summarized briefly.

Whether differences in age and educational attainment played an important role in differentiating demonstrators from followers is a moot question. It has been suggested that the importance of these differences depended, in part, upon whether or not the individuals investigated were community demonstrators or neighborhood demonstrators. former were older and better educated than their followers.6 In whatever manner they were classified, certain commonalities among demonstrators were observed. They were generally slightly higher in socio-economic status than their followers and possessed certain characteristics that neighboring farmers considered worthy of emulation. Such characteristics included contacts and communication outside the community, active participation in many types of social and civic organizations. and receptivity to new ideas. 7, 8, 9, 10

Eugene A. Wilkening, "Informal Leaders and Innovators in Farm Practices," <u>Rural Sociology</u>, XVII (September, 1952), 272.

7 <u>Ibid.</u>, 273.

Herbert F. Lionberger, "Some Characteristics of Farm Operators Sought as Sources of Farm Information in a Missouri Community," Rural Sociology, XVIII (December, 1953), 337.

<sup>&</sup>lt;sup>9</sup>Bailey, "The Dilemma of Demonstrations," 261-62. <sup>10</sup>Hardin, "Natural Leaders," 282.

The role relationship between demonstrators and their neighbors appeared to be opinion leadership and followership. Demonstrators were believed to play an important role in the diffusion aspect of the diffusion-adoption dependency. Theirs was an explanatory and legitimating role. In essence, they told people about the recommended practices and demonstrated their significance. 11

Diffusion Research in Medical Sociology

Compared to rural sociology, study of the diffusion of medical drugs is an emerging research tradition that began with the investigations of Caplow in the early fifties. These studies largely investigated channels of communication utilized by physicians in learning about new drugs. 12 As a result of the Surgeon General's Conference on Health Communications in 1962 in which stress was placed upon the need to understand the factors that influence diffusion and adoption of medical products, investigations turned toward greater use of the sociometric methods employed in rural

ll Andrew W. Baird and Wilfrid C. Bailey, <u>Test-Demonstration and Related Areas: Review of Literature</u>, Preliminary Reports in Sociology and Rural Life No. 11 (State College: Mississippi State University, 1960), p. 15.

Herbert Menzel and Elihu Katz, "Social Relations and Innovations in the Medical Profession: The Epidemiology of a New Drug," Public Opinion Quarterly, XIX (Winter, 1955), 342.

sociology and marketing research. 13

In general, findings of recent studies in medical sociology tended to support findings in other fields concerning the importance of interpersonal relationships in expediting the diffusion process. Sometimes the influence came from detail men (representatives of pharmaceutical companies) and at other times from colleagues, depending upon the vantage point of the investigation. When detail men were treated as primary sources of information in contrast with reading material, they accounted for one and three fourths as many adoptions of new drugs as journal articles, twice as many adoptions as direct mail, and six times as many as journal advertisements. 14

Rehder studied the methods employed by detail men in one medical community for a period of several months. 15 He found that in addition to maintaining good public relations with physicians and bringing relevant mass media communications to their attention, they gave them samples of

Curtis P. McLaughlin and Roy Penchansky, "Diffusion of Innovation in Medicine: A Problem of Continuing Medical Education," <u>Journal of Medical Education</u>, XL (May, 1965), 439.

<sup>14</sup> Theodore Caplow and John J. Raymond, "Factors Influencing the Selection of Pharmaceutical Products," <u>Journal of Marketing</u>, XIX (July, 1954), 20-21.

<sup>15</sup> Robert Richard Rehder, "The Role of the Detail Man in the Diffusion and Adoption of an Ethical Pharmaceutical Innovation Within a Single Medical Community," (Unpublished Ph.D. dissertation, Stanford University, 1961), pp. 110-15.

the new drug. These were frequently accepted with the admonition that the physicians would test the new drug on their wives, female relatives and nurses before making a decision to adopt it. From this it appeared that the effectiveness of detail men was inextricably bound to the influence of local interpersonal relationships.

Interest in sharing the benefits of utilizing a sociometric approach in diffusion studies motivated Coleman, Katz and Menzel to publish recently a full-volume account of the classic study they conducted several years ago. 16 In this study, the personal characteristics and personal relationships (with colleagues) of 216 physicians in four Midwestern communities were correlated with the time of the physicians' adoption of a new drug. Personal characteristics were measured by factors such as medical training, scientific orientation, medical behavior, type of practice, media exposure, patients' income, etc. Personal relationships were measured by responses to three questions relative to advice seeking, discussions and friends in the medical community. The results of the study revealed that early users (innovators) of the drug were: (a) heavy users of

<sup>16</sup> James E. Coleman, Elihu Katz, and Herbert Menzel, Medical Innovation: A Diffusion Study (New York: Bobbs-Merrill Company, Inc., 1966), pp. 7-187, passim.

certain drugs; (b) specialists; and (c) frequent visitors to out-of-town medical centers and meetings.

McLaughlin and Penchansky summarized the salient findings of a number of studies included in the Annotated Bibliography of Studies of the Flow of Information to Practitioners (a publication of the Institute for Advancement of Medical Communication). 17 These findings disclose that physicians tended to use different channels of communication for different stages in the adoption process. For example, mass media and detail men generally made them aware of the existence of a new drug, but colleagues were more influential in their decisions to use the drug. However, after adoption had been effected, mass media played an important role in influencing them to continue use of the drug. addition to using different sources of information for different stages in adoption, sources of information varied according to the purposes for which information was sought. An interesting finding was that younger physicians relied more heavily than older physicians on detail men and professional journals as valid sources of information. Physicians in the same social group tended to adopt a drug at about the same time. This latter finding tended to support the theory of horizontal opinion leadership, defined as

<sup>17</sup> McLaughlin and Penchansky, "Diffusion of Innovation in Medicine," 440-46.

advice seeking and giving among persons of the same social status.

The horizontal flow of communication and influence with respect to medical services was observed in the general populace during the poliomyelitis immunization campaigns in the late fifties. 18, 19 Acceptance was generally associated with a high socioeconomic status, and, in one study, with the size of the community. Since the highest percentage of acceptance was found in medium-size cities, it was concluded that large cities and small towns militate against frequent social contacts, thereby decreasing the influence of interpersonal relationships. 20

# Diffusion Research in Marketing

Many of the concepts related to consumer adoption of new products have been considerably modified in recent years. Traditionally, marketing research was based upon the popular belief that a linear relationship existed between mass media exposure and consumer purchases. Thus, it was assumed that

<sup>18</sup> David L. Sills and Rafael E. Gill, "Young Adults' Use of the Salk Vaccine," Social Problems, VI (Winter, 1959), 246-53.

<sup>19</sup>Leila Calhoun Deasy, "Socio-economic Status and Participation in the Poliomyelitis Vaccine Trial," American Sociological Review, XXI (April, 1956), 185-91.

Sills and Gill, "Salk Vaccine," 251.

advertising through mass media rapidly accelerated the spread of innovation awareness and influenced consumers' reception of innovations. On that ground, surveys were conducted of the types and frequency of mass media used by business firms. Recently, a trend toward the use of consumer surveys has changed the depiction of consumer market influences. Irrespective of the product (household equipment and appliances, short-term consumer items, or clothing), influence for purchases has come chiefly from people rather than advertisements.

Katz and Lazarsfeld advocated research conducted within this context. They posited that personal contacts were greater determiners of behavior than radio advertising, salespersons, newspaper advertising, and magazine advertising, respectively. (This proposal was made before the advent of TV advertisements.) Accepting the proposition of personal influence, Bell hypothesized that endorsement of a new product comes from the first persons of a particular social group to use the product. Findings of his study supported the hypothesis; therefore, he concluded:

The innovator appears to be the effective sales representative. It has been determined that innovators

<sup>21</sup> Elihu Katz and Paul F. Lazarsfeld, <u>Personal Influence</u> (New York: Free Press of Glencoe, 1955), p. 176.

act as influentials within their circle of friends. They act as demonstrators and opinion leaders. Therefore, the goodwill of the innovators is of importance to [manufacturers]. 22

The thesis of Bell's study was that innovators vary according to the complexity of the innovation; therefore, manufacturers should base predictions of the market for a particular class of innovations on empirical studies of the characteristics of innovators of that class.

King observed the horizontal flow of influence in the area of fashions and demonstrated the utility of the self-designating method of identifying sources of leader-ship.<sup>23</sup> Arndt determined from his study of product-related conversations that in addition to influence, personal contacts provide a source of social support and risk reduction for "would be buyers."<sup>24</sup> Myers found that indirect influence on the purchase of low-cost food items was exerted in the course of interpersonal conversations of other topics.<sup>25</sup>

<sup>&</sup>lt;sup>22</sup>William Earl Bell, "Consumer Innovation: An Investigation of Selected Characteristics of Innovators" (Unpublished D.B.A. dissertation, Michigan State University, 1962), p. 189.

<sup>23</sup>Charles W. King, "Fashion Adoption: A Rebuttal to the 'Trickle Down' Theory," in Toward Scientific Marketing: Proceedings of the 1963 Winter Conference of the American Marketing Association (Chicago: American Marketing Association, 1964), p. 124.

<sup>24</sup>Johan Arndt, "Role of Product'Related Conversations in the Diffusion of a New Product," <u>Journal of Marketing Research</u>, IV (August, 1967), 291-95.

<sup>&</sup>lt;sup>25</sup>John G. Myers, "Patterns of Interpersonal Influence in the Adoption of New Products," in <u>Science</u>, <u>Technology and Marketing</u>, ed. by Raymond M. Hans (Chicago: American Marketing Association, 1966), pp. 755-56.

Haines found that, though innovators were the influentials among personal contacts, product sampling was a more potent factor of influence than personal contact in product use.<sup>26</sup>

In summary, parallels can be drawn between findings in rural sociology and findings in medical sociology and marketing research. For example, all recognized the existence of cognitive stages in the adoption process. These were (a) awareness, (b) interest, (c) evaluation, (d) trial, and (e) adoption. They also agreed on the importance of mass media at the awareness and trial stages and personal influences at the interest and evaluation stages. 27, 28, 29, 30 All utilized intermediaries. In medicine, it was the detail man; in marketing, the consumer innovator; and in rural sociology, the demonstrator. Medical and consumer innovators had many of the characteristics of opinion leaders in rural

<sup>&</sup>lt;sup>26</sup>George H. Haines, Jr., "A Study of Why People Purchase New Products," <u>Science</u>, <u>Technology and Marketing</u>, ed. by Raymond M. Hans (Chicago: American Marketing Association, 1966), pp. 691-95.

Coleman, Katz and Menzel, Medical Innovation: A Diffusion Study, p. 57.

<sup>28</sup>Herbert F. Lionberger, "Diffusion of Innovations in Agricultural Research and in Schools," in Strategy for Curriculum Change, ed. by Robert R. Leeper (Washington, D. C.: Association for Supervision and Curriculum Development, 1965), p. 32.

<sup>&</sup>lt;sup>29</sup>Rogers, <u>Diffusion of Innovations</u>, pp. 98-102.

<sup>30</sup>Bell, "Consumer Innovation," 183.

sociology and other fields. Too, social influences appeared to flow between persons of similar socio-economic statuses. Finally, physicians' tendency to select sources of information in terms of the problem under consideration and the tendency for consumer innovativeness to vary with the complexity of the innovation approximate the tendency of farmers to use different demonstrators for different purposes.

### Diffusion Research in Education

Until recent years, most educators have been little aware of the tradition of diffusion research in the field of education. Little thought had been given to the process through which educational change had been accomplished though the clamor of ideas and inventions waiting to be implemented was generally recognized. The efforts of a few persistent researchers heightened awareness of the role and importance of the diffusion process in channeling ideas and inventions in the schools.

Since the thirties, a substantial amount of information has been collected concerning the diffusion and adoption of educational innovations. For example, Mort and others revealed the commonality of adoption rates of publicly-supported schools and teachers colleges and their laboratory schools. Typically, an innovation was available for fifteen years before it was adopted by three percent (3%) of the

schools.<sup>31</sup>, <sup>32</sup> Also, school innovativeness was linked to material characteristics and wealth of schools and communities.<sup>33</sup> Allen determined that a driver education program had reached one hundred percent (100%) diffusion in the New York metropolitan area schools in sixteen years.<sup>34</sup> Carlson discovered that school superintendents wielded considerable influence in the five years it took modern math to reach the saturation point in the schools of a county in Pennsylvania.<sup>35</sup> From these and similar studies emerged some interesting and sometimes characteristic diffusion patterns; however, the dependencies, the influential factors

<sup>31</sup> Paul R. Mort and Francis G. Cornell, American Schools in Transition (New York: Bureau of Publications, Teachers College, Columbia University, 1941), pp. 46-53.

<sup>32</sup>Thomas M. Barrington, The Introduction of Selected Educational Practices into Teachers Colleges and Their Laboratory Schools (New York: Bureau of Publications, Teachers College, Columbia University, 1953), p. 23.

<sup>33</sup> Mort and Cornell, American Schools in Transition, pp. 19-60 passim.

<sup>34</sup>Everett M. Rogers, "Toward A New Model for Educational Change" (paper presented at the Conference on Strategies for Educational Change, Washington, D. C., November 8-9, 1965, sponsored by Ohio State University and U. S. Office of Education), p. 2.

<sup>35</sup>Richard O. Carlson, "School Superintendents and the Adoption of Modern Math: A Social Structure Profile," in <u>Innovation in Education</u>, ed. by Matthew B. Miles (New York: Bureau of Publications, Teachers College, Columbia University, 1964), pp. 332-33.

of diffusion rates have been grossly neglected. Of this negligence, Eichholz and Rogers stated:

In some 150 educational studies completed to date on the diffusion of innovations, the unit of analysis has been the school or the school system... When the school or school system is used... much of the individual variation in innovativeness and other variables is cancelled... there is a need for further investigation... using the individual teacher as the unit of analysis, while taking account of school or group norms... 36

## Diffusion Research in Industry

The literature is limited with respect to diffusion studies in the industrial tradition. Rogers noted the existence of twelve publications as opposed to one hundred seventy-two in education and thirty-seven in medical sociology. These studies were largely economic in nature and reflected the interests of economic historians, industrial economists, and industrial engineers, thereby decreasing the relevancy of a majority of the studies to the purposes of this study. However, because education is conducted in a formal organizational setting similar to that

<sup>36</sup> Gerhard Eichholz and Everett M. Rogers, "Resistance to the Adoption of Audio-Visual Aids by Elementary School Teachers: Contrasts and Similarities to Agricultural Inno-vation," in <u>Innovation in Education</u>, ed. by Matthew B. Miles (New York: Bureau of Publications, Teachers College, Columbia University, 1964), p. 314.

<sup>37</sup> Rogers, <u>Diffusion of Innovations</u>, p. 24.

<sup>38&</sup>lt;u>Ibid.</u>, p. 43.

of an industrial corporation, and because the problems that beset education are often similar to those in industry, some attention to the industrial tradition is warranted. The two studies to be discussed in the following paragraphs were selected more for their implications of diffusion strategy than for any specific reference to diffusion methodology.

In a report to the National Science Foundation, the United States Department of Commerce indicated that changes in mature (traditional) industries such as textiles, machine tool, and machine building have come from outside agencies rather than from within. Reasons proffered for this occurrence were given as:

-- focus on production, and on commitments to present methods and machines.

--protection of these commitments by powerful social systems--of family, company, locality, and industry--which would be threatened by large-scale technical change.

--lack of entrepreneurship and of entrepreneurial models.39

The power of internal social systems in facilitating or hindering production were discussed in studies and essays concerned with industrial relationships. 40, 41, 42

<sup>39</sup>U. S., Department of Commerce, Office of Technical Services, Patterns and Problems of Technical Innovation in American Industry, Report to National Science Foundation, September, 1963, p. 181.

<sup>40</sup>Nan Lin, "Innovation Internalization in a Formal Organization" (Unpublished Ph.D. dissertation, Michigan State University, 1966), pp. 21-28.

<sup>41</sup>McLaughlin and Penchansky, "Diffusion of Innovations in Medicine," 440-42.

<sup>42</sup>Gerald T. Kowitz, "The Management of Motivation," Phi Delta Kappan, XLIX (October, 1967), 78-79.

Most of these social systems were oriented toward protection and maintenance of the perceived norms and status quo of the organization. Industrial firms that were change-oriented expended Gargantuan efforts to provide in-service training for personnel, and to keep abreast of "shop talk" and the work climate in the various units. Also, they tried to keep channels of communication open and accessible to all personnel.

The report of the U. S. Department of Commerce associated improvement of change-orientation with provisions for a consulting process whereby workers could acquire new skills and attitudes. Such a service should be designed to function so that:

--management is involved, is aware of serious problems
. . . and wants change.

-- the consultant does not confine himself to assessing the situation and writing reports, but works closely with the client company after his original assessment has been made.

-- the relationship between consultant and firm is a long one, lasting over many months.

--part of his [the consultant's] work is with top management itself, and takes the form of bringing to top management's attention its own contribution to what it sees as lack of innovation or creativity within the firm.43

Carter and Williams made a comparison between innovative and non-innovative firms. They observed that:

<sup>43&</sup>lt;sub>U.S., Department of Commerce, <u>Technical Innovation</u> in American Industry, pp. 193-94.</sub>

The greater a firm's technical achievements, the readier it is to share its knowledge with other firms and to contribute to journals, conferences, . . . to supplement their own research and development by buying knowledge from other firms. . . . The more progressive firms have a greater interest in arranging for the training of their staff, whether through internal training schemes . . . or through effective use of local technical college and university facilities.44

Again the inference is made that influence resulting from integration in a social network is more significant than isolationism. The U. S. Department of Commerce related lack of change to fragmentation in the so-called textiles industry, when in fact the industry is characterized by separate firms pursuing separate goals without regard to the industry as a whole. Another inference was that leadership for improvement of management, skills, attitudes, and output should come from persons who are familiar with and are capable of working with personnel in various echelons of the power structure.

It is evident from the foregoing that diffusion of innovations in education and industry differed from the diffusion process in the previously discussed fields. Both were characterized by fragmentation and isolation of the various units of the total organization. The potentiality of interpersonal relationships within the organization as an

<sup>44</sup>C. F. Carter and B. R. Williams, <u>Industry and Technical Progress:</u> Factors Governing the Speed of Application of Science (London: Oxford University Press, 1957), pp. 179, 181.

important factor in organizational innovativeness was virtually disregarded. Innovation occurred largely as a result of intervention by outside agencies. Thus, changes were piecemeal and poorly articulated.

In summary, many diffusion patterns and strategies were implied in the studies cited in the foregoing paragraphs. It appears that some fields have gone far beyond others in achieving a workable facimile of the ideal diffusion strategy discussed by Guba. 45 Such a strategy consists of: "(a) diffusion techniques; (b) assumptions concerning the nature of the adopter; (c) assumptions concerning the end state in which one wishes to leave the adopter; (d) assumptions about the nature of the agency or mechanism carrying out the diffusion activity; and (e) assumptions concerning the substance of the invention."46 Education. it seems, is far from achieving an overall diffusion strategy within Guba's frame of reference. A major reason is that education lacks a recognized professional network of diffusers to expedite the diffusion process as is found in rural sociology and medicine. 47, 48 In view of this, one might

<sup>45</sup>Egon G. Guba, "Diffusion of Innovations," Educational Leadership, XXV (January, 1968), 292-94.

<sup>46</sup> Ibid.

<sup>47</sup>Lionberger, "Diffusion of Innovations," p. 40.

<sup>48</sup> Ronald Lippitt, "Roles and Processes in Curriculum Development and Change," in <u>Strategy for Curriculum Change</u>, ed. by Robert R. Leeper (Washington, D. C.: Association for Supervision and Curriculum Development, 1965), p. 13.

reasonably ask, "Who are the change agents, the communicators, and the legitimators of changes in instructional practices that do occur in schools?" Evidential answers to this question are difficult to secure on a broad scale. However, a few studies have produced findings that are suggestive.

## Instructional Leadership

The major contribution to curriculum improvement during the past decade came from programs supported by the National Defense Education Act and the National Science Foundation. Since these programs were chiefly concerned with updating course contents and methods of teaching contents, attempts have been made to attract participants who were close enough to the classroom situation to merit the respect of teachers as legitimators of the proposed innovations. 49 Therefore, participation in the programs was based more upon the perceived relationship that existed between participants and their colleagues than upon school position, per se. Accordingly, administrators, supervisory personnel, and teachers were given potentially equal opportunity to play an important leadership role in improving

<sup>49</sup> Kimball Wiles, "Contrasts in Strategies of Change," in Strategy for Curriculum Change, ed. by Robert R. Leeper (Washington, D. C.: Association for Supervision and Curriculum Development, 1965), pp. 7-9.

instructional practices. However, the efficacy of this development depends upon the permeability of the power structure that typically exists in schools.

As was discussed in the first section of this chapter, interpersonal relationships are significant influencers of responsiveness to change. The quality of these relationships are particularly consequential in influencing behavior in an organizational setting. Like other corporate organizations, the school system is characterized by a number of substrata informal groups which are formed along the lines of affinity and similarity. 50, 51 Thus, teachers associate with and are influenced by teachers; supervisors associate with and are influenced by supervisors, and so forth. The "climate" of the formal organization determines mainly whether or not an informal group will be supportive or combative. A change agent or an innovator, or even a communicator of an innovation is confronted with the necessity of understanding the behavior norms of a target informal group in addition

<sup>&</sup>lt;sup>5C</sup>David Mechanic, "The Power to Resist Change Among Low-Ranking Personnel," <u>Personnel Administration</u>, XXVI (July, 1963), 5-11.

<sup>51</sup>Ralph B. Kimbrough, "Community Power Structure and Curriculum Change," in Strategy for Curriculum Change, ed. by Robert R. Leeper (Washington, D. C.: Association for Supervision and Curriculum Development, 1965), pp. 61-64.

to the group's expectations of the formal organization. 52 An informal group, sometimes referred to as an informal organization, differs from the formal organization in the following respects:

The Informal Group

1. Each member of the group is able to interact with every other member of the group.

2. The group develops its own structure and organization.

3. The group selects its own leader or leaders.

- 4. The group has been voluntarily formed to achieve certain common tasks, goals, and purposes.
- 5. It does not have an officially prescribed hierarchical structure.

The Formal Group

- 1. Each member of the group usually is not able to interact with every other member of the group.
- 2. The formal group is usually structured by authority external to the group.
- 3. The holders of positions of status in the organization are usually determined by authority external to the group.
- 4. The tasks, goals, and purposes of the group may be determined in part by authority external to the
- 5. It usually has an officially prescribed hierarchical structure.53

From the foregoing comparison, it can be seen that relationships are more closely knit and influential in the informal group than in the formal organization. On that

<sup>&</sup>lt;sup>52</sup>Paul E. Marsh, "Wellsprings of Strategy: Considerations Affecting Innovations by the PSSC," in Innovation in Education, ed. by Matthew B. Miles (New York: Bureau of Publications, Teachers College, Columbia University, 1964), pp. 263-64.

<sup>&</sup>lt;sup>53</sup>Edgar L. Morphet, Roe L. Johns, and Theodore L. Reller, Educational Organization and Administration: Concepts, Practices, and Issues, 2nd ed. (Englewoods Cliffs. New Jersey: Prentice-Hall, Inc., 1967), p. 128.

ground, leadership efforts are more effective when the authority for leadership is rendered by the informal group rather than imposed upon it. It can also be reasoned that authority for leadership is rendered to the person, irrespective of membership, who has the most information and skill related to the activities of the group. How administrators, supervisory personnel, and teachers have served in this role and/or their potentiality for effectiveness in the role is reviewed briefly in the following paragraphs.

### 1. Administrators as Instructional Leaders

leadership. However, the association may be more apparent than real in view of the behavioral concepts presented thus far in this discussion. How a principal behaves is the real determinant of whether or not he is a leader. A principal is at the same time an administrator and a supervisor. Therefore, he has a dual responsibility. On the one hand, he is expected by his superiors to achieve the goals of the school, and on the other hand, he is expected by his sub-ordinates to meet their personal needs. A balance between these two sets of expectations determines whether or not a principal is an effective leader. Such a balance is described

<sup>54</sup>Robert H. Anderson, <u>Teaching in a World of Change</u> (New York: Harcourt, Brace and World, Inc., 1966), p. 124.

by Getzels and Guba as transactional leadership, <sup>55</sup> and by Halpin and others as leadership that is high in initiation of structure (attention to goals of the formal organization) and consideration (attention to personal needs of subordinates). <sup>56</sup> The behavior of a principal of an innovative school is different from that of a principal in a less innovative environment.

What is the role behavior of principals of innovative schools? From findings of relationships favorable to innovativeness in industry and management, Lin hypothesized that the relationship between a principal and teacher should be: "personal rather than job-centered; and helpful rather than rigid-controlled as perceived by the teacher if he is to accept an innovation being diffused in the organizational hierarchy internally." 57

This hypothesis was substantiated by Chesler, Schmuck, and Lippitt in an investigation of principal-teacher relationship in nine elementary and secondary schools in

<sup>&</sup>lt;sup>55</sup>W. W. Charters, Jr., "The Social Background of Teaching," in <u>Handbook of Research on Teaching</u>, ed. by N. L. Gage (Chicago: American Educational Research Association, Rand McNally and Company, 1963), pp. 786-87.

<sup>56</sup> Andrew W. Halpin, The Leadership Behavior of School Superintendents (Chicago: Midwest Administration Center, University of Chicago, 1959), p. 23.

<sup>57</sup>Lin, "Innovation Internalization in a Formal Organization," p. 22.

Michigan, <sup>58</sup> and by Peterman in an investigation of the principal's role in fostering teacher innovativeness and participation in in-service education in sixteen secondary schools in Michigan. <sup>59</sup> Chesler, Schmuck, and Lippitt found high significant correlations between teacher innovativeness and teachers' perception of approval and support by (a) principals, and (b) colleagues. They concluded that the principal was the key factor in creating a climate conducive to innovativeness. Peterman found that though principals were not a major source of ideas for classroom innovations nor the chief determinant of participation in in-service education, teacher innovativeness was significantly correlated to classroom visitation by principals.

Factors contributing to an administrator's predisposition toward innovativeness were investigated by Hanson, 60 and Knedlik. 61 Hanson determined that participation

Mark Chesler, Richard Schmuck, and Ronald Lippitt, "The Principal's Role in Facilitating Innovation," Theory Into Practice, II (December, 1963), 274.

Lloyd Edward Peterman, "The Relationship of Inservice Education to the Innovativeness of the Classroom Teacher in Selected Public Secondary Schools in Michigan (Unpublished Ph.D. dissertation, University of Michigan, 1966), p. 87.

John Ofsthus Hanson, "A Descriptive Study of Basic Data and the Educational Innovations Found in Twenty-two Selected North Dakota Small Schools," <u>Dissertation Abstracts</u>, XXVII, No. 6, University of North Dakota (1966), 1587-A.

<sup>61</sup>Stanley M. Knedlik, "The Effect of Administrative Succession Pattern Upon Educational Innovation in Selected Secondary Schools," Dissertation Abstracts, XXVIII, No. 11, New York University (1968), 4415-A.

in summer workshops and travel outside the school community differentiated innovative from non-innovative administrators. Knedlik found that administrators who originated from outside the employing school system were significantly more innovative than were inbred administrators.

The role of the principal as an instructional leader has been an area of concern to some investigators. Findings from Peterman's study revealed that principals were neither a major source of ideas for classroom innovations nor the determining factor in in-service education participation. Lippitt reached a similar conclusion from his extensive contacts with in-service educational programs. 62 He said that the evaluation relationship which exists between principals and teachers militates against a trainer-trainee relationship. Tinari highlighted the importance of these findings in his study of the perceived role behavior of the principal in in-service education. 63 He found that teachers' perceptions conflicted with those of principals. The role of the principal as an instructional leader was the only one of six areas studied in which conflict was Tinari concluded that the instructional leadership found.

Ronald Lippitt, "Curriculum Development and Change," p. 24.

Charles Tinari, "A Study of the Role Behavior of the Elementary School Principal in In-service Education in Selected Public Schools of New Jersey," <u>Dissertation Abstracts</u>, XXVIII, No. 10, New York University (1968), 3954-A.

role of the principal needs clarification.

In sum, it appears that an effective principal is one who meets the needs of both superiors and subordinates. The role behavior of the principal is of significant import to classroom innovativeness. However, the evidence is stronger that teachers view the principal as a source of professional support rather than of instructional ideas and practices. It appears that the creation of an innovative school climate is a principal's major instructional responsibility.

## 2. Supervisory Personnel as Instructional Leaders

For the purposes of this study, supervisory personnel were designated as specialists, defined as persons who teach or supervise the work of others in a specific subject matter area of instruction (Chapter I, p. 20). By virtue of position, supervisory specialists were expected to influence instructional practices. This assumption, perhaps, accounts in part for the paucity of empirical studies on instructional supervision. Since 1963, abundant essays emphasizing the need for descriptive studies of supervisory behavior have appeared in the literature. Harris stated:

Notable indeed is the lack of research on the supervisor and supervisory programs and practices in education. We continue to emphasize studies in this field which deal with teacher opinions of supervisors, principals' opinions, contrasting perception of roles, and role conflicts. . . . it is time to change focus and to sharpen it too. . . . The recent study of

administrators and the adoption of innovations by Carlson might well be redesigned and repeated with supervisors as the focus. 64

Harris' observation about the Carlson study reflects a trend in the literature describing a more dynamic leadership function for the specialist in implementing innovations in instructional practices. This trend is evidenced by recent descriptions of the specialist as a change agent. 65, 66 Some authors do not believe that the past performance of the specialist warrants this description. Why the specialist is viewed as a change agent may best be understood by reference to the role of a change agent.

In general, a change agent lives in and holds a status position in the local community in which he purports to introduce a change. Ideally, his knowledge of community norms, values and needs enables him to adapt the innovation

Ben M. Harris, "Strategies for Instructional Change: Promising Ideas and Perplexing Problems," in <u>The Supervisor: Agent for Change in Teaching</u>, ed. by James Raths and Robert R. Leeper (Washington, D. C.: Association for Supervision and Curriculum Development, NEA, 1966), p. 86.

<sup>65</sup> Luvern L. Cunningham, "Effecting Change Through Leadership," Educational Leadership, XXI (November, 1963), 76.

The Supervisor: Agent for Change in Teaching, ed. by James Raths and Robert R. Leeper (Washington, D. C.: Association for Supervision and Curriculum Development, NEA, 1966), p. 100.

<sup>67</sup> Harris, "Strategies for Instructional Change," p. 88.

to the cultural values and past experiences of the target population. From this vantage point he is able to function as a communication intermediary between the sponsors of an innovation and the target clientele. 68

Similarly, a specialist occupies a status position in the school community and works with both teachers and administrators. In addition, he frequently serves as a local channel for new ideas originating from external professional organizations. Because he is a member of the school community, it is assumed that a specialist is cognizant of the norms and expectations of both teachers and administrators and is able to adapt his behavior accordingly. The real measure of a change agent, however, is the extent to which he is capable of producing changes in a target population.

A study by Hardenbrook suggests the feasibility of this occurrence. After determining that the curriculum specialist was the influential in a district-wide adoption of five innovations, Hardenbrook concluded that the specialist should take the leading role in initiating innovative changes. 69

<sup>68</sup> Rogers, Diffusion of Innovations, pp. 283-84.

Robert Francis Hardenbrook, "Identification of Processes of Innovation in Selected Schools in Santa Barbara County," <u>Dissertation Abstracts</u>, XXVIII, No. 8, University of Southern California (1968), 2896-A.

A study by Houston and DeVault is also suggestive. These investigators studied the relative effectiveness of (a) television, (b) television supplemented by consultant services in the classroom, (c) face-to-face lecture-discussion, and (d) face-to-face lecture-discussion supplemented by consultant services in the classroom as methods of inservice education for teachers. The methods in which the services of a consultant were used were found to be more effective as measured by changes in the achievement of both teachers and pupils. 70

These two studies tend to show that the effectiveness of a specialist as an agent of change can be determined
by empirical studies of this nature. Assessments of effectiveness are based largely upon role expectations of the
position. The position of specialist appears to be particularly suited to the implementation of instructional innovations. If, as Raths observed, specialists are reluctant
to admit that they are more knowledgeable about teaching
than teachers, 71 they are not likely to be perceived by
teachers as sources of instructional leadership.

<sup>70</sup>W. Robert Houston and M. Vere DeVault, "Mathematics In-Service Education: Teacher Growth Increases Pupil Growth," Arithmetic Teacher, X (May, 1963), 243-47.

<sup>71</sup> James Raths, "A Final Note," in <u>The Supervisor:</u>
Agent for Change in Teaching, ed. by James Raths and Robert
R. Leeper (Washington, D. C.: Association for Supervision and Curriculum Development, 1966), p. 125.

## Teachers as Instructional Leaders

Thirty years ago Mort and Cornell observed that teachers would rather follow than lead. 72 That depiction of a teacher's leadership behavior has changed very little in the ensuing years as is indicated in the following paragraphs.

Wayland thinks the organizational structure of the school is responsible for teachers' reticient leadership behavior. 73 This proposition has been verified by several investigators. From studies of decision-making practices in school systems in New York, Brickell reported:

Teachers can make only three types of instructional changes in the absence of the administrative initiative: change in classroom practice; relocation of existing curriculum content; and introduction of single special courses at the high school level. 74

Pallegrin analyzed the findings of a number of investigations of perceived sources of innovations in schools. He concluded:

. . . existing role expectations both encourage and impede change, but in the main they mitigate the teacher's serving as a source of innovation. . . . it

<sup>72</sup> Mort and Cornell, American Schools in Transition, p. 290.

<sup>73</sup> Sloan R. Wayland, "The Teacher as Decision Maker," in <u>Curriculum Crossroads</u>, ed. by A. H. Passow (New York: Bureau of Publications, Teachers College, Columbia University, 1962), pp. 45-46.

<sup>74</sup>Henry M. Brickell, Organizing New York State for Educational Change (Albany, New York: State Department of Education, 1961), p. 24.

is quite evident that there is a lack of institutionalized procedures through which the teacher can play an important role in the innovative process.75

Walters investigated the extent to which teachers in Missispi share in decision-making practices. The results of his study showed that teachers in 108 school districts are permitted to participate in only 14 of 90 administrative practices in which teachers can and do participate. 76

That teachers have internalized the view of the appropriateness of the existing structure is suggested by Nylin. 77 He found no significant differenes between innovative and non-innovative teachers in their perception of the organizational climate of the school. Results were influenced, however, by the disproportionately large number of non-innovators in the sample, or by teachers' satisfaction with their present teaching arrangement. Nylin concluded that few teachers are innovators and that teachers are not ready to assume a leadership role in the innovative-process.

<sup>75</sup> Roland J. Pellegrin, An Analysis of Sources of Innovation in Education (Eugene, Oregon: Center for Advanced Study of Educational Administration, University of Oregon, 1966), pp. 8-9.

<sup>76</sup>Robert N. Walters, "An Analysis of the Extent to which Teachers Participate in the Administrations of the Public Schools in Mississippi," <u>Dissertation Abstracts</u>, XXVIII, No. 8, University of Mississippi (1968), 2970-A.

<sup>77</sup>Donald William Nylin, "An Investigation of the Relationship between Self-Perceived Traits Associated with Innovators" (Unpublished Ed.D. dissertation, University of Illinois, 1967), pp. 82-89.

Perhaps the clearest evidence of factors that influence teachers' predisposition toward leadership is provided by Dempsey who assessed teachers' perception of barriers to change. This investigator hypothesized that teachers who were ready to change perceived fewer barriers to change, while teachers who were least ready to change perceived more internal as well as external barriers to change. The hypotheses were substantiated. The outstanding feature of the relationships was that the school figured prominently in the barrier-to-change variables.

Research concerning the teacher as an instructional leader is characterized by uncertainty. Factors influencing this were imputed to the teacher and to the school. Lippitt interjected another factor which related teachers' perception of teachers as instructional leaders. He asserted that teachers were reluctant to adopt another teacher's innovations. To the extent that this is valid, teachers may not render authority for leadership to another teacher.

## Summary

Whether he was a demonstrator in agriculture, a detail man in medicine, or a consumer-innovator in marketing,

<sup>78</sup> Richard Allen Dempsey, "An Analysis of Teachers' Expressed Judgments of Barriers to Curriculum Change" (Unpublished Ph.D. dissertation, Michigan State University, 1963), pp. 86-89.

<sup>79</sup> Lippitt, "Curriculum Development and Change," p. 13.

agencies attempting to introduce new ideas and practices typically employed an intermediary as a personal channel of communication who was capable of exerting some observable degree of influence or opinion leadership on a target population. The direction of this influence appeared to be horizontal rather than vertical. Hence, intermediaries were most often friends and/or neighbors of the target population. Conversely, much less was known about the identity and effectiveness of intermediaries in education. appeared to be no planned strategy for determining the directional flow of influence with respect to instructional innovations. As suggested by Eichholz and Rogers (p. 37), educational research has not studied the role of the individual (administrator, specialist, or teacher) in the diffusion process. The individual was utilized as the unit of analysis in the present study. Therefore, the characteristic that set this study apart from the mainstream of diffusion studies in education was that it dealt with a selected population of trainees who were expected to serve as demonstrators in their schools.

In addition to social structure, the literature reviewed in Chapters I and II tended to emphasize the importance of self-perception and the perceptions of significant others in determining an intermediary's effectiveness as a demonstrator or a legitimator of an innovation. This

body of information was helpful in the formulation of hypotheses for the study.

The literature also revealed characteristic diffusion strategies for different types of intermediaries (or diffusers). Further, the success of a diffusion effort depended upon optimal matching of strategy with potential adopter. This led to the formulation of questions concerning whether or not there are identifiable strategies for administrators, specialists, and classroom teachers.

#### CHAPTER III

#### PROCEDURE AND DESIGN

The purpose of this chapter is to describe the following elements of the study: the population and the Institute; research design; selection and construction of research instruments; collection of data; and procedures for the analyses of data.

# Description of the Population

During the summer of 1966, thirty-five educators (twenty-five women and ten men) participated in a six-week Institute designed to improve the teaching of critical and appreciative reading in grades four through nine. The participants represented a wide diversity of professional positions. However, for the purposes of this study they were classified as administrators, specialists, and class-room teachers. There were eight administrators, eleven specialists, and sixteen classroom teachers. Each participant was from a different school or school system and at least half were from schools in widely dispersed geographical areas. Only two came from school systems with an enrollment of less than two hundred, while nineteen were from systems with enrollments of five thousand to thirty thousand plus.

In general, the participating population was young. More than half were less than thirty-five, only two were over forty-two years of age. Educational experiences ranged between three and twenty-two years of classroom teaching and/or supervisory responsibilities, with twenty-one participants having had less than thirteen years of experience. See Tables 3.1 and 3.2 for descriptive data.

It can be seen from Table 3.2 that all participants evidenced high professional goals and/or achievement. Fourteen had earned the master's degree, five were working toward a master's degree and sixteen toward the doctorate. It seems significant that better than sixty percent of the specialists and administrators were working toward the doctorate as opposed to twenty-five percent of the classroom teachers. Only one specialist held less than the master's degree, while three administrators fell in this category. Although no data were collected on the number working toward a specialist's degree, the fact that all participants except one registered for credit in the Institute seems to offer reasonable evidence that some were pursuing this degree. The program leading to a specialist degree consists of two years of planned graduate study beyond the bachelor's degree.

Graduate School Catalog Issue (East Lansing: Michigan State University Publication, 1967), p. 149.

Table 3.1--Professional data and initial research study classification of participants

Partic- ipant	Job Classification	Research Category	Degree H <b>el</b> d	Years of Teaching Experience
1	Reading Teacher	Specialist	M.Ed.	14
2	Teacher	Teacher	A.B.	9
1 2 3 4 5 6 7 8	Teacher	Teacher	M.A.	9 7 8
4	Teacher	Teacher	M.A.	8
5	Teacher	Teacher	M.A.	4
6	Team Leader	Specialist	A.M.	11
7	Teacher	Teacher	M.Ed.	15 12
8	Supervisor	Specialist	M.A.	12
9	Consultant	Specialist	M.A.	5 3 <del>2</del>
10	Teacher	Teacher	B.S.	3 <del>]</del>
11	Asst.Dir. of Instr.	Adm.*	B.S.	3~
12	Teacher-Librarian	Specialist	M.S.	3 <sup>-</sup> 11
13	Supervisor	Specialist	M.A.	10 <del>3</del>
14	Supervisor	Adm.	M.S.	21
15	Teacher-Principal	Adm.	B.S.	8
16	Reading Consultant	Adm.	M.A.	16
17	Supervisor	Adm.	M.Ed.	īĭ
18	Teacher-Principal	Adm.	B.E.	14
19	Teacher	Teacher	A.M.	8
<b>2</b> 0	Teacher	Teacher	M.S.	10 <del>1</del>
21	Teacher	Teacher	M.S.	13
22	Teacher	Teacher	M.A.	-6
23	Reading Teacher	Specialist	M.Ed.	ğ
24	Principal	Adm.	M.A.	Ź
25	Teacher	Teacher	B.A.	3
25 26	Teacher	Teacher	A.B.	19
27	Library Counselor	Adm.	M.Ed.	12
28	Librarian	Specialist	M.A.	6
29	Teacher	Teacher	B.S.	6 9 7 3 19 12 6 3
36	Teacher	Teacher	M.A.	Ŕ
31	Reading Teacher	Specialist	M.A.	13
32	Reading Teacher	Specialist	M.A.	· 16
33	Teacher	Teacher	B.S.	
34	Teacher	Teacher	M.S.	5 8
34 35	Reading Teacher	Specialist	B.S.	18

<sup>\*</sup>Adm. - Administrator

Table 3.2--Job classification and educational status and aspirations of Institute participants

	Highe	Ighest Degree Earned	Earned		Degree Pursued	Pursued	
Classification	Bachelor	Master's	Doctorate	Total	Master's	Doctorate	Totals
Administrator	9	5	0	100	8	5	7
Specialist	ч	10	0	11	0	7	7
Teacher	9	10	0	16	m	4	7
Totals	10	25.	0	35	5	16	21

Several participants held office in learned associations and societies and others held membership. This in combination with high achievement and goals seemed to suggest that, in general, the population appeared to be receptive to change and thus were selected.

## Description of the Institute

The Code 3 NDEA Institute for advanced study for teachers of reading was held at Michigan State University from June 22 until August 3, 1966. The Institute was designed to provide theoretical and practical experiences that would enable participants to increase their knowledge and use of the skills, understandings and attitudes that are essential to discriminating reading.

The objectives of the Institute were:

- 1. to learn more about the constants of quality literature:
- 2. to learn more about the fundamental principles of selection of books for use in the elementary school instructional program;
- 3. to become more familiar with the field of children's literature (especially the recent publications);
- 4. to learn more about the study and reading interests of children and youth of elementary school

- age (grades 4 through 9) and the role that these interests play in the process of educacation;
- 5. to gain a better understanding of what skills and attitudes are necessary to be a critical and appreciative reader;
- 6. to realize more fully that certain types of curricular design and patterns of instruction tend to create certain reading needs and tend to determine the degree to which discriminating reading (critical and appreciative reading) by a child can or cannot be fostered; and
- 7. to identify specific learning experiences which involve the use of some form of children's literature and which are designed especially to promote further interest in reading by children and will provide opportunities for the development of appreciative and critical reading skills and attitudes.

Achievement of these varied and comprehensive objectives required the competencies of outstanding educators
and consultants in a variety of areas related to critical
and appreciative reading. To this end, instructors and
guest lecturers were selected on the basis of the unique
contributions each could render to the overall program.

Three three-credit courses formed the nucleus of the Insitute program. These were: Children's Literature; Teaching of Reading; and a Seminar in Elementary Education. Lectures, discussions and demonstrations were given mornings and the afternoons were freed for individual and/or small group projects, study or field trips. See Appendix A for a description of the contents of the courses.

class sessions were held in a room reserved specifically for Institute use, thereby facilitating transition from one class activity to another. The opportunity to spend time between classes continuing discussions with instructors and guest lecturers that would ordinarily be spent in making room changes was a decided value of an Institute room. Another advantage was the readily accessible wealth of trade books and other multisensory aids housed in the room. In addition to creating an attractive physical atmosphere, the ease with which these materials could be used contributed substantially to the creation of a high level of motivation and togetherness.

Communication between participants and Institute faculty and staff was optimum; therefore, no attempt was made to get a written evaluation of the Institute from participants until the last week of the Institute. At that time, participants were asked to react anonymously in writing to a Participant Evaluation Questionnaire. Questions

dealt with the following: efficiency of organization and operation of the Institute; effectiveness of objectives, instruction and course contents; adequacy of ratio between directed and nondirected activities; expedience of time distributed between guest lecturers and regular instructors; efficacity of inviting persons of diversified professional positions as participants; and adequacy of library facilities. Further, questions inquired into perceived strengths and weaknesses of the Institute and participants' plans for using Institute experiences. Thirty-five questionnaires were distributed, and twenty-eight (80%) were returned.

A few examples of responses to queries of major strengths and weaknesses of the Institute and plans for innovations in home schools are sufficient to show the positive influence of the Institute on participants. "Excellent instruction and experiences" was the dominant response (100 percent of return) for major strengths. It seems appropriate to mention here that all participants reaffirmed this assertion seven months after the close of the Institute. (The follow-up study investigator received 100 percent return on the mailed reactionaire.) "Excellent organization and planning" was next in order of mention. Closely related to this were comments extolling the competence, stamina and friendliness of the Director, the sparkplug of the Institute.

With regard to major weaknesses, responses showed that there were no outstanding factors that were obvious to all as in the case of strengths. Participants varied greatly in identifying the following weaknesses: seminar period (31%); work requirements (25%); housing arrangements (14%); no weaknesses (11%); library facilities (7%); diversity of membership (4%); no provision for seeing instructors work with children (4%); and no comment (4%).

Plans for innovations in home schools as a result of Institute experiences were as varied as the membership of the Institute. It appears that each had selected from Institute experiences according to his needs and interests (see statement on objectives on p. 11 of Chapter I). Nevertheless, five ideas were dominant in stated plans. Illustrative of these were statements concerning:

- increased use of trade books in the instructional program;
- 2. improvement of reading program or development of an individualized reading program to foster development of critical and appreciative reading skills;
- 3. improvement of library facilities or establishment of central library or learning center;
- 4. implementation of activities to share Institute concepts with colleagues; and
- 5. implementation of an in-service program related to critical and appreciative reading.

In sum, it seems reasonable to conclude that the Institute met the perceived needs of the participants, that whatever happened to hinder implementation and sharing of concepts in home schools was not due to a low level of motivation resulting from the Institute. See Appendix A for a copy of the evaluation form.

# Design of the Study

The study was designed to determine and analyze effectiveness of diffusion activities resulting from the Institute. A review of the literature related to NDEA Institutes conducted between 1961 and 1965 revealed a number of uncertainties about what happens after an Institute. These reports were instrumental in the selection of variables and formulation of hypotheses used in this study. The study was conducted in three phases. As an observer, the investigator became familiar with objectives and course contents and participants of the Institute during phase one. Further, three instruments were administered to collect data for the independent variables and to classify participants into research categories. Phases two and three were used as a follow-up study of participants to: (a) determine the extent to which participants had been able to implement Institute concepts in their schools; and (b) make an on-site reliability assessment of information collected with reactionaires by visiting the schools of a sample population of participants.

The independent variables of the study were: (a)

Professional Position; (b) Self-Perception of Leader Behavior; (c) Self-Perception of Responsibility for Diffusion;
and (d) Stated Reasons for Attending the Institute. Data
for the independent variables were collected during the
fifth and sixth weeks of the Institute. Instruments administered were:

Leader Behavior Description Questionnaire (LBDQ)

Self-Assessment of Diffusion Responsibility (SADR)

Institute Attendance Rationale (IAR)

Professional position was collected as part of the application for the Institute. The Leader Behavior Description Questionnaire (LBDQ) was used to classify participants for independent variable two; SADR for variable three; and IAR for variable four.

Extensiveness of diffusion activities was the dependent variable. Diffusion was measured by (a) the number of concepts shared by participants with other teachers, and (b) the number of concepts adopted by other teachers. To study the dependent variables, the investigator constructed a two-part Reactionaire. Further, a short interview guide and a short version of the Reactionaire were constructed to use in school visitation.

Ten null hypotheses were formulated to determine differences and associations between the variables under

investigation. Hypotheses 1 and 2 were statements of no difference, and hypotheses 3 through 10 were statements of no relationship or association between selected variables. The Kruskal-Wallis one-way analysis of variance by ranks and the Spearman rank correlation coefficient were used in testing hypotheses.

## Description of Instruments Used in the Study

The instruments used in data collection are described in the following sections.

1. <u>Leader Behavior Description Questionnaire (LBDQ)</u>
Form XII

This instrument was developed as a research device at Ohio State University in the Ohio Leadership Studies<sup>2</sup> to measure twelve dimensions of leader behavior:

Representation of member interests
Tolerance of uncertainty
Persuasion
Retention of the leadership role
Tolerance of member freedom of action
Production emphasis
Predictive accuracy
Consideration
Integration of organization
Initiation of structure
Superior orientation
Reconciliation of conflicting demands

Ralph M. Stogdill, "Manual for the Leader Behavior Description Questionnaire--Form XII" (Bureau of Business Research, Ohio State University, 1963), p. 3.

Typically, the instrument had been used to obtain descriptions of a supervisor or superior from members of a group that he supervised. These descriptions were then compared with the leader's description of his own behavior. However, the LBDQ manual of directions states: "With proper changes in instructions, the questionnaire can also be used by a leader to describe his own behavior." The latter use was made of the questionnaire in this study.

The instrument had been used extensively in leadership studies in many fields. With educational personnel,
it was used to measure the behavior of superintendents,
principals and college department chairmen. From research
conducted with an earlier form of the scale, effective leaders
appeared to rate high in two dimensions: Consideration and
Initiation of Structure. Consideration refers to "behaviors
that indicate a regard for the comfort and well being of
the group members, as well as an equalitarian respect for
the member's contributions." Initiation of structure refers
to "behaviors that clearly define the leader's role, and
structure the expectations of the members." Results of
research conducted with Form XII suggest that five subscales

<sup>&</sup>lt;sup>3</sup><u>Ibid.</u>, p. 12.

Ralph M. Stogdill, Omar S. Goode, and David R. Day, "New Leader Behavior Description Subscales," <u>Journal of Psychology</u>, LIV (1962) 259.

(Representation of member interests, Persuasiveness, Role enactment, Production emphasis, and Predictive accuracy) appear to be significant factors in leader behavior. 5, 6

Subscales used in the present study included the five just previously mentioned plus the two subscales that were used successfully in previous research in identifying characteristics of effective leaders. Subscales used were:

Representation of member interests
Persuasiveness
Role enactment
Production emphasis
Predictive accuracy
Consideration
Initiation of structure

The LBDQ was composed of 100 short, descriptive statements (5 or 10 items on each subscale) of ways in which leaders may behave. Respondents indicated the frequency with which they (or their leader) had engaged in each form of behavior by circling one of five possible responses: always, often, occasionally, seldom, or never. Each positively stated item received a score of 5 to 1. Negatively stated items received a score of 1 to 5. Theoretically, the range of scores was from 100 to 500. A copy of the instrument is presented in Appendix B.

# 2. Self-Assessment of Diffusion Responsibility (SADR)

This instrument was designed by the investigator to assess participants' perceptions of their responsibility in their schools as a result of having attended the Institute. Educational literature concerned with workshops and other

types of group in-service education was used in compiling a basic set of items for the scale. 7, 8, 9, 10, 11 In brief, the literature recommended potential procedures for disseminating new ideas and practices, or gave examples of those that had been followed.

A panel of seven educators critically evaluated the instrument items for clarity and validity, and the instrument was edited and revised on the basis of these comments. The revised scale was composed of ten items. These were submitted to five professional judges. Five faculty members in the College of Education at Michigan State University each ranked the items on a 10 point scale, with 10 representing the rank of most importance and 1 the rank of least importance. From the means of these separate rankings an item value was computed. This method was parallel to methods used in securing sociometric ratings in diffusion

<sup>7</sup>Mitchell, "In-Service Education Procedure," pp. 442-45.

<sup>&</sup>lt;sup>8</sup>Earl C. Kelley, <u>The Workshop Way of Learning</u> (New York: Harper and Brothers, Publishers, 1951), pp. 104-25, passim.

<sup>9</sup>Vernon E. Anderson, <u>Principles and Procedures of Curriculum Improvement</u> (New York: Ronald Press Company, 1956), pp. 206-33, passim.

National Society for the Study of Education, <u>In-Service Education</u>, Fifty-sixth Yearbook of the Society, Part I (Chicago: University of Chicago Press, 1957), pp. 103-92, <u>passim</u>.

<sup>11</sup> Karbal, "In-Service Education for Teachers," pp. 60-88.

studies. 12 The basic assumption of the scale was that it included the major sharing activities that participants were likely to engage in when they returned to their schools. A copy of the items and ratings is shown in Table 3.3.

Each participant was given a pocket chart and an unordered set of the ten items. No weight designations were shown on the items, and each item was on a separate card. Participants were asked to think of their responsibilities to their schools in the coming school year and complete the statement: "As a result of my participation in this Institute, I should . . ." This was done by distributing the ten items in the four pockets of the chart. Participants were instructed to place the two items perceived as most important in pocket number 4 (labeled Major) and the two items perceived as least important in pocket number 1 (labeled Minor). Of the six remaining items, three were placed in pocket number 3 (no label) and three in pocket number 2 (no label). An illustration of the pocket chart is presented in Figure 1.

Scoring procedures involved sorting participants' responses into categories as is described below. The mean ranking by judges was used to assign a weight to each item. These weights identified objectively the ordinal position of each item in terms of most to least in importance. Then

<sup>12</sup> Rogers, <u>Diffusion of Innovations</u>, pp. 68-70.

Table 3.3--Items and weights of the SADR scale

Item	Weight
Initiate plans to begin an in-service program in reading and children's literature	9.6
Plan and conduct demonstration lessons for other teachers	9.0
Summarize in writing significant ideas from the institute and distribute copies to teachers	8.4
Share my institute experiences informally with the teachers	7.2
Wait until I have tested institute ideas before I share them with other teachers	5.4
Share my institute experiences with those teachers who ask me about them	4.6
Share my experiences if my regular school responsibilities are modified to make allowances for sharing activities	4.0
If asked by my superior, I would share institute ideas	3.6
If paid by the school district, I would develop a program for teachers	2.2
In my position I have no responsibility to push institute ideas	1.6

Minor 1	2	3	Major .4

Fig. 1--Pocket Chart

the items, bearing nominal labels (1, 2, 3, etc.), were sorted into four value categories of high, high-moderate, low-moderate, and low. The category labels were placed on a scatter diagram (example shown in Figure 2). Nominal labels for the two items that were ranked as most important were written under "high"; nominal labels for the three items that were next in order of importance were written under "high-moderate"; and or, until two response items were categorized "high," three "high-moderate," three "lowmoderate," and two "low." These classifications corresponded to the division of items made by participants. Next, the items were removed one by one from each participant's pocket chart and matched by content with a corresponding item that bore a nominal label. A mark was tabulated on the diagram under the proper category to show agreement between participant and judges for a particular item. The sum of the agreements represented the participant's score on the instrument. For example, if a participant agreed with the judges on five items, then the participant's score was five.

## 3. Institute Attendance Rationale (IAR)

The IAR was constructed by the investigator to assess participants' reasons for attending the Institute. Suggestions for the items of the scale were culled from the literature on workshops and other types of in-service

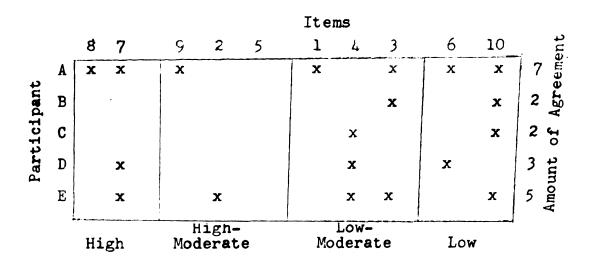


Figure 2--A scatter diagram of responses by a small sample of participants with respect to amount of agreement with judges on items of the SADR

education. 13, 14, 15, 16 The same procedure used in the development and administration of the SADR was followed in developing and administering this instrument. The items were evaluated by a panel of educators and ranked by five professional judges (faculty members in the College of Education) on a 10 point scale, with 10 representing the rank of most importance and 1 the rank of least importance. From the means of these separate rankings an item value was

<sup>13</sup> Mitchell, "In-Service Education Procedure," pp. 431-32.

<sup>14</sup>Kelley, The Workshop Way, pp. 4-11.

<sup>15</sup> Anderson, <u>Curriculum Improvement</u>, pp. 221-33.

<sup>16</sup>Karbal, "In-Service Education for Teachers," pp. 20-9.

computed. This method was based on methods used in securing sociometric ratings in diffusion studies. 17 The basic assumption of the scale was that in selecting items which included reasons why others had attended the Institute, participants would reveal their own reasons for attending. Further, it was assumed that participants would unambiguously interpret the meanings of the items. To insure the latter, participants were asked to raise questions if the intent of the item was not clear. Table 3.4 presents a copy of the items and ratings.

Each participant was given a pocket chart and an unordered set of the ten items. No weight designations were shown on the items, and each item was on a separate card. Participants were asked to complete the statement: "I believe that most participants attended this Institute to . . ." Participants placed the ten items of the IAR scale in four pockets of a chart in the same manner as was employed with the SADR scale. The two items perceived as most important were placed in pocket number 4 (major), the two items perceived as least important were placed in pocket number 1 (minor), three items were placed in pocket number 3, and three in pocket number 2.

Responses were scored by matching the items removed

<sup>17</sup> Rogers, <u>Diffusion of Innovations</u>, pp. 68-70.

Table 3.4--Items and weights of the IAR scale

Items	Weights
Discover methods of improving instruction in reading and children's literature in my school(s)	9.8
Work cooperatively with teachers from other states in finding solutions to common problems in education	9.2
Hear outstanding educators and consultants	7.8
Keep from "going stale"	6.4
Take advantage of an opportunity which other teachers have said they liked	5.8
Qualify for a change in assignment or position	4.8
Obtain term hours of credit	3.6
See if I wished to do further work at this institution	3.2
Earn additional credit for higher pay	2.8
Receive a government scholarship	1.6

from the pockets of the participant's chart with those of the expert judges which had been ranked into four categories. The sum of agreements represented the participant's score on the instrument. For example, if a participant agreed with the judges on five items, the participant's score was five.

# 4. Reactionaire

A two-part reactionaire was constructed to determine the extent to which Institute concepts had been implemented

in participants' schools. The reactionaire was mailed to participants on March 28, 1967.

Part A of the reactionaire was a checklist of fiftynine practices and procedures which had been recommended in the Institute. Forty-nine of these concerned instructional practices and procedures and were answered only by classroom teacher participants. The remaining ten items (50-59) were answered by all participants. These were items relative to the school library or learning center and were structured to assess participants' influence on practices and procedures in this area. Part B was designed to assess the nature and extent of diffusion activities engaged in by all participants. The first forty-nine items were identical to the forty-nine items stated in Part A. That is, the participants were being asked of the same items: first, "Which have you adopted?" (for classroom teachers only); and second, "Which have you shared?" (for all participants). A second section of Part B contained ten descriptive activities from which participants were instructed to select the three most effective activities they used in sharing Institute concepts with other teachers.

To determine the items of the reactionaire, the investigator, as an observer in the Institute, kept a daily record of practices and procedures emphasized in lectures and discussion sessions. From these a listing of recommended

practices and procedures was compiled. These were carefully examined and edited by the Institute Director and a staff member. The revised list reflected the recommendations of the faculty. In one sense it reflected the Institute objectives, for it projected in behavioral terms desired outcomes for participants. The reactionaire was composed of the revised set of items and was pretested by five persons in the School of Education.

The major portion of the reactionaire was designed to test the ten hpotheses of this study. The first forty-nine items in Parts A and B were used for this purpose. The score on Part A was the sum of the practices and procedures used by a classroom teacher participant. Two scores were recorded for Part B: (1) the number of practices and procedures shared with other teachers; and (2) the number of practices and procedures adopted by other teachers.

In addition, information (relative to the ancillary questions) was collected which was not directly related to the hypotheses under investigation but which augmented them through description of relevant diffusion activities. Participants were asked to react to three scales in Part A:

How Often Used; When Use Began; and Change in Practice Since the Institute. These scales indexed the time element in adoption. In Part B of the reactionaire, participants were asked to indicate the number of teachers: (a) worked with

one time slightly; (b) worked with once extensively; (c) worked with more than once slightly; (d) worked with more than once extensively; and (e) who have adopted the practice. This was done to determine the number of contacts made and the quality of the contacts. A copy of the reactionaire is shown in Appendix B.

## 5. Interview Guide

An interview guide composed of fourteen questions was constructed by the investigator to use in on-site interviews with seven Institute participants in school systems in Michigan. The questions were structured to ascertain (a) how valuable the Institute experience had been, (b) when used and/or sharing of Institute concepts had been initiated, (c) what key persons had helped to facilitate initiation of concepts, (d) the nature of assistance provided, and (e) problems encountered in their sharing activities. The literature was helpful in developing the components of the guide. 18, 19, 20 The interview was used in context with the instrument described in the next section. Appendix C contains a copy of the interview guide.

<sup>18</sup> Mitchell, "In-Service Education Procedure," pp. 443-47.

<sup>19</sup> Kelley, The Workshop Way, pp. 93-99.

<sup>20</sup>Karbal, "In-Service Education for Teachers," pp. 104-15.

### 6. A Short Form of the Reactionaire

A short form of the reactionaire was constructed to establish retest reliability of data collected with the long form of the reactionaire. The instrument was administered orally to participants during the investigator's visits to their schools. A sampling technique was used to randomly select fifteen items from the original pool of forty-nine items in Parts A and B. The investigator started with a random number of five selected from a table of randomized numbers and used a skip interval of three. A copy of the form is shown in Appendix C.

# Collection of Data

As was stated in a previous discussion, data for the independent variables were collected while the Institute was in session (phase one). Participants were alerted periodically that the investigator would conduct a follow-up study and would administer some instruments near the end of the Institute. Also they were alerted a day prior to testing that some instruments would be administered on the following day. However, no mention was made of the nature of the instruments until the day they were administered. Since they were notified in advance, all participants attended each administration of instruments.

Near the end of the Institute, the SADR and the IAR instruments were administered. The LBDQ was administered

on August 1. Participants were asked to think of and describe their own behavior as leaders in responding to items. Results of tests administered in phase one are presented in Table 3.5.

The reactionaire was administered via mail in phase two. Several techniques were employed in an effort to secure a 100 percent return of reactionaires.

- 1. A personally addressed letter to each participant was mimeographed on official stationery of the College of Education and signed by the investigator who had served as an observer throughout the Institute and was therefore known by all participants.
- 2. A personal note remindful of some shared Institute experience was handwritten at the bottom of most letters. The investigator operated on a premise that receivers of these letters would be among the first to respond. The premise was well-founded.
- 3. In the cover letter, April 10, 1967 was designated as the deadline for return of reactionaires.
- 4. A stamped, self-addressed envelope was supplied to facilitate returns.
- 5. A follow-up letter and a second stamped, selfaddressed envelop were sent to participants who

Table 3.5--Scores earned by participants on three instruments administered during the summer of 1966

Partici- pant	Possible Score:	SADR 10	IAR 10	LBDQ 500
123456789011211456789012222222233333333333333333333333333333		72235677525685085263505258373743653	45613416648604666563633628445162536	257 214 224 221 232 193 230 218 230 214 175 203 182 223 235 218 241 230 208 214 204 227 197 212 194 212 218 191 193 214 226 227 238

had not returned the reactionaires by the designated date.

Copies of the cover letter and the follow-up letter are included in Appendix D.

Of the thirty-five reactionaires mailed on March 28, 1967, thirty-two (approximately 91%) had been returned by April 29. A follow-up letter was mailed June 1 to the three participants who had not responded, and a 100 percent return was achieved by June 6. One return was not usable because the participant had failed to react to Part B of the reactionaire. This information was necessary in securing data for the dependent variables, so that return was deleted. Therefore, data were analyzed for thirty-four participants instead of the initial thirty-five.

Identifying data and written comments on returned reactionaires revealed that fourteen participants (approximately one-third) underwent some change in status or assignment in the 1966-67 school year. Nine went to new schools or school systems, three were assigned new roles, and two met some type of reorganization in their schools. Necessarily, the research categories into which some of these participants had been placed had to be changed. As a result, the population was distributed as follows: eight administrators, eight specialists, and eighteen classroom teachers.

Phase three involved the reliability assessment.

During the first two weeks of June 1967, the investigator visited the schools of seven of the nine participants who were working in the state of Michigan to make an on-site reliability assessment of data collected with the reactionaire. Visits were restricted to Michigan for two reasons:

(a) the investigator was operating on a limited travel budget; and (b) reactionaire information provided by the Michigan participants appeared to be representative.

Two methods of collecting data were employed on school visits. A structured interview was held with participants to find out when use and/or sharing of Institute concepts had been initiated and other information. A second method involved the oral administration of a short form of the reactionaire. After the interviews, participants generally shared informally some of the things they had done with children and/or colleagues. Visits usually ended with a tour of the school; however, the investigator made no attempt to question colleagues of participants about the results of the Institute.

# Procedures for Analyses

Because of the small population used in the study and the kinds of data collected, nonparametric statistical tests were used to analyze the data. The Kruskal-Wallis one-way analysis of variance and the Spearman rank correlation coefficient were the tests to which the data were

subjected. Both are so-called "ranking tests." In effect, data are treated by ranks instead of scores. Both are used extensively in testing null hypotheses. Since the ten hypotheses of this study are stated in null form, the tests seemed appropriate.

The Kruskal-Wallis determines whether a number of independent samples are from the same population. Hypotheses 1 and 2 are statements of no difference, therefore, they were subjected to treatment by this test. The Spearman rank tests the degree of association between variables. Hypotheses 3 through 10 are statements of no relationship or association, so they were subjected to treatment by the Spearman rank test.

Since a fairly large number of ties in scores occurred in the dependent variables (number of concepts diffused and number of concepts adopted), a correction for ties was used in the formulas of both tests. The formulas are shown below.

Formula for the Kurskal-Wallis Test:

$$H = \frac{\frac{12}{N(N+1)} \sum_{j=1}^{K} \frac{R_{j}}{n_{j}} - 3(N+1)}{1 - \frac{T}{N^{3} - N}}$$

Formula for the Spearman Rank Test:

$$r_s = \frac{\sum x^2 + \sum y^2 - \sum d^2}{2\sqrt{\sum x^2 + \sum y^2}}$$

The hypotheses were rejected if the observed values of H and  $r_s$  were significant at the <.05 level.

Data collected with three scales of Part A of the reactionaire was tabulated to determine which Institute recommended conepts and procedures were used earliest in the school year and which were used most frequently. Also, information reflecting participants' influence was summarily presented. Data from four scales in Part B of the reactionaire were tabulated to determine which practices and procedures were shared most widely, the average number of contacts made, and the quality of these contacts. Further, a comparative summary was made of diffusion strategies used by administrator, specialist, and classroom teacher participants.

The Spearman rank correlation coefficient test was used in establishing the retest reliability of the information collected with the short form of the reactionaire on school visits.

### Summary

Thirty five participants of an NDEA Institute were the subjects of a research investigation from June 22, 1966

through June 17, 1967. Several techniques were employed in the study: observation and tests; a reactionaire; and sample school visits. Data collected through these techniques were analyzed with the Kurskal-Wallis one-way analysis of variance and the Spearman rank correlation to test ten null hypotheses. The rejection region of the hypotheses was set at the .05 level of significance.

#### CHAPTER IV

### ANALYSIS OF DATA AND FINDINGS

Included in this chapter are the statistical analyses of the hypotheses and the descriptive analyses of related problems. Statistical analyses are presented in relation to the major variables of the study: social structure; leader behavior; diffusion responsibility; Institute attendance rationale; and adoption of Institute concepts. In addition, the related problems of the study are considered under three headings: extent of diffusion; diffusion strategies; and factors limiting diffusion activities.

# Statistical Analysis

### Social Structure

To what extent is professional position related to diffusion activities of three groups of educators is the question raised by null hypotheses 1 and 2. To answer this question, alternative hypotheses were tested with the Kruskal-Wallis one-way analysis of variance test. The hypotheses stated:

1. H<sub>O</sub> There is no difference in extensiveness of diffusion activities among administrators, specialists, and classroom teachers.

- H<sub>1</sub> The three groups of educators are not the same in extensiveness of diffusion activities.
- 2. H<sub>O</sub> There is no difference in extent of adoption of Institute concepts by colleagues of administrator, specialist, and classroom teacher participants.

H<sub>1</sub> Extent of adoption of Institute concepts by colleagues is not the same for the three groups of educators.

The value of H and its associated probability for hypothesis 1 were H = 7.22, df = 2, thus p $\angle$ .05. Since this probability was greater than the previously set level of significance,  $\angle$  = .05, the null hypothesis was rejected and the alternative hypothesis was accepted. It was concluded that the three groups of educators differed in diffusion activities.

The value of H and its associated probability for hypothesis 2 was H = 5.05, df = 2, thus p > .05. This probability was less than the previously set level of significance,  $\angle$  = .05. Null hypothesis 2 was accepted. Therefore, it was concluded that colleagues of the three groups of educators did not differ in adoption of Institute concepts.

These findings indicate that participants differed with respect to hypothesis 1, but were no different with respect to hypothesis 2. Findings (using mean diffusion scores) are shown in Tables 4.1 and 4.2.

In Tables 4.1 and 4.2 the mean acore for teachers was lowest in both diffusion activity and colleagues' adoption

Table 4.1--Mean diffusion activity scores for three groups of educators

					Pr	ofil	Profile of Range in Scores	Ran	ge i	n Sc	ores				
Participants	Means	12	13	77	15	16	17	18	19	20	21	22	53	24	12 13 14 15 16 17 18 19 20 21 22 23 24 Statistic
	21 66										l×				H = 7.22
Administrators	7.12	,									/				
Specialists	23.13	<b>~</b>					Ì						<b>   </b>		P< .05
Teachers	13.19	•	l×											i	,

Table 4.2--Mean scores of participants for number of concepts adopted by colleagues

Profile of Range in Scores  13 14 15 16 17 18 19 20 21 22 23 24 Statistic $\overline{X}$
--

of Institute concepts. Specialists and administrators were very similar in diffusion activity (Table 4.1); however, the mean score in adoption was 4.87 points higher for administrators than for specialists. This seems to suggest the better vantage point of the administrative position in ascertaining extent of adoptions.

#### Leader Behavior

Whether or not possession of "means" (ideas, information, skills) was sufficient to assume that any person was capable of directing the activities of another or a group was the concern of hypotheses 3 and 4. Specifically, these hypotheses stated:

- 3.  $H_0$  There is no relationship between extensiveness of diffusion activities, and differences among participants in self-perception of leadership behavior.
- H<sub>1</sub> Extensiveness of diffusion activities is positively related to differences among participants in self-perception of leadership behavior.
- 4. H<sub>O</sub> There is no relationship between extent of adoption of institute concepts by colleagues and differences among participants in self-perception of leadership behavior.
- H<sub>1</sub> Extent of adoption of Institute concepts by colleagues is positively related to differences among participants in self-perception of leadership behavior.

The alternative hypotheses were subjected to the

Spearman rank correlation coefficient test with the following results:

The value of  $r_s$  and its associated probability for hypothesis 3 was  $r_s = .052$ , and p > .05. Since this probability was less than the previously set level of significance, cappa = .05, null hypothesis 3 was accepted. No relationship between diffusion activities and self-perception of leader behavior was supported by these data.

Both null hypotheses 3 and 4 were accepted. Several factors may have contributed to these results. Participants' scores were quite homogeneous on the SADR scale (see Table 3.5). Possible range for the test was 100 to 500. Only two scores exceeded the midpoint of the range. Ninety-four percent (94%) of the participants scored between 175 and 249 points. It would appear that all participants assessed their leadership behavior conservatively in this case. In addition, one might ask: "What effect, if any, did the fourteen changes in assignment or status (Chapter III, p. 85) have on the results of the findings?" This question is

discussed further in a later section of this chapter. Data relative to hypotheses 3 and 4 are shown in Tables 4.3 and 4.4.

In Table 4.3 and Table 4.4 data are ranked in ascending order on the LBDQ measure. Table 4.3 shows a comparison between a participant's rank in leader behavior and his rank in number of concepts diffused. For example, participant No. 11 made the lowest assessment of his leader behavior but he was fourth highest in the number of concepts diffused to his colleagues. On the other hand, participant No. 1 made the highest assessment of all participants of his leader behavior but he diffused only as many concepts as did participant No. 11. Since the diffusion score for both was high, it seems that participant No. 11 made an extremely conservative estimate of his leadership behavior. The correlation between leader behavior and diffusion activities was not significant.

Table 4.4 compares a participant's rank in leader behavior with his rank in number of concepts adopted by colleagues. Another look at participants No. 11 and 1 shows that participant No. 11 was also high in number of concepts adopted by colleagues, though he ranked slightly below participant No. 1 in this activity. This seems to confirm the observation made in connection with Table 4.3 of conservation on the part of participant No. 11 in self-assessment

Table 4.3--Correlation between participants' self-assessment of leader behavior and the number of concepts diffused

		Ranks	
		Number	
Partici- pant	LBDQ	of Con- cepts Diffused	Statistic
11 13 29	1 2 3	30.5 26 7	
13 29 30 6 25 23 12 21 19 24 27 2 10 20	1 2 3 4.5 6 7 8 9	13 33 2 20.5	$r_s = .052$
23 12 21 10	7 8 9	20.5	p > .05
24 27 2	11.5 11.5 14.5	9.5 17.5 11.5 3 32 27 7 22	
10 20 31	14.5 14.5 14.5	27 7 22	
31 28 8 16 4 14 33 22 34 7 9 18 5 15 17 32 26	18 18 18	23 24 17.5	
14 3 33	20 21 22 23 24.5	15 7 9.5 29 25 9.5 1 15 4	
22 34 7	24.5 24.5 27	25 9.5 1	
9 18 5	24.5 27 27 27 27 29	15 4 11.5	
15 17 32	29 30 31 32 33 34	34 19 5 28	
1	33 34	28 30.5	

Table 4.4--Correlation between participants' self-assessment of leader behavior and the number of concepts adopted by colleagues

		Ranks	
Partici- pant	LBDQ	Number of Con- cepts Adopted	Statistic
11 13 29 30 6 25 23 12 19 24 27 20 31 8 16 14 3 3 3 2 3 4 7 9 8 15 17 3 2 6 1 7 9 1 7 1 7 1 7 1 7 1 7 1 7 1 7 1 7 1	12346789011.55 111.55 111.55 1222222222333334	26 18 16.5 3.5 5.5 24 12.5 15.5 19.5 12.5 14.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12	$r_s = .20$ $p > .05$

of leadership behavior. The correlation between leader behavior and the number of concepts adopted by colleagues was not significant.

# Diffusion Responsibility

Most institutes and other programs designed to improve instructional practices make an effort to determine formally or informally participants' plans for using their new learnings. Since this is frequently the only indication directors of these programs have of program effects on participants, plans for future use become quite important in evaluation studies. In effect, plans are objectives; therefore, a public commitment of plans was hypothesized to be synonymous to implementation. Hypotheses 5 and 6 were designed to test participants' plans for using Institute concepts.

- 5. H<sub>O</sub> There is no relationship between extensiveness of diffusion activities and differences among participants in self-perception of responsibility for diffusion of institute concepts.
- H<sub>1</sub> Extensiveness of diffusion activities is positively related to differences among participants in self-perception of responsibility for diffusion of institute concepts.
- 6. H<sub>O</sub> There is no relationship between extent of adoption of institute concepts by colleagues and differences among participants in self-perception of responsibility for diffusion

of institute concepts.

H<sub>1</sub> Extent of adoption of institute concepts by colleagues is positively related to differences among participants in self-perception of responsibility for diffusion of institute concepts.

The alternative hypotheses were subjected to the Spearman rank correlation coefficient test with the following results:

The value of  $r_s$  and its associated probability for hypothesis 5 was  $r_s = .43$ , and p < .05. Since this probability was greater than the five percent level of acceptability, < = .05, null hypothesis 5 was rejected and the alternative hypothesis accepted. The results, reported in Table 4.5, indicated a significant relationship between self-assessment of responsibility for diffusion and extensiveness of diffusion activities.

The value of  $r_s$  and its associated probability for hypothesis 6 was  $r_s = .18$ , and p > .05. This probability was less than the five percent level of acceptability,  $\ll = .05$ ; thus, null hypothesis 6 was accepted. The results, reported in Table 4.6, indicated no relationship between adoption of Institute concepts by colleagues and participants' self-assessment of responsibility for diffusion of Institute concepts.

Table 4.5--Correlation between participants' self-assessment of responsibility for diffusion of Institute concepts and the number of concepts diffused

-		Ranks	
Partici- pant	SADR	Number of Con- cepts Diffused	Statistic
2 3 10	3 3	32 9.5 27	
10 18 24 4 20	3 3 3 3 8 8 8 8 8 8		$r_s = .43$
27	8 8 8	4 11.5 15 7 3 7 5 11.5	p <b>&lt; .</b> 05
29 32 5 31 9	11.5 11.5	11.5 22 15 30.5	
14 17 21	16.5 16.5 16.5 16.5	7 19 9.5	
23 25	16.5 16.5 16.5 22.5	20.5 2 15 33	
34 6 12 19 33 1 7 8 28	22.5 22.5 22.5	20.5 17.5 29 30.5	
1 7 8	27 27 27	30.5 1 24 23	
30	27 27 31 31 31 33.5	13 26 17.5	
13 16 26 15 22	31 33.5 33.5	28 34 25	

Table 4.6--Correlation between participants' self-assessment of responsibility for diffusion of Institute concepts and adoption of concepts by colleagues

	R	anks	
-		Number	
Partici- pant	SADR	of Con- cepts Adopted	Statistic
2 3 10 18 24	3 3 3 3 8 8 8 8 8	19.5	
10	3	23 31	
18	3	5.5 16.5	
24	3	16.5	$r_s = .18$
4 20	8 g	12 5.5	
27 27	8	12 5.5 5.5 16.5	p > .05
29	8	16.5	
32	8	<b>21.</b> 5	
31	11.5	5.5 12	
9	16.5	5.5 26	
20 27 29 32 5 31 9 11 14 17 21 23 25	11.5 16.5 16.5 16.5	26 14.5	
17	16.5	28.5	
21	16.5 16.5	28.5 12 28.5	
23	16.5	28.5	
2) 31.	16.5 16.5 22.5 22.5 22.5 22.5	5.5 25 33 24 5.5 32	
6	22.5	33	
12	22.5	24	
19	22.5	32	
1	27	30	
7	27 27	5.5 5.5	
8	27	3.2 14.5	
30 30	27 27	5.5	
13	31	5.5 18	
16	31	21.5 19.5	
26 15	31 33.5	34	
34 12 19 33 1 7 8 28 30 13 16 26 15 22	27 31 31 31 33.5 33.5	34 27	

With only ten items on the SADR scale; a large number of ties in ranks occurred. The ranks in SADR are arranged in ascending order in Tables 4.5 and 4.6.

## Institute Attendance Rationale

It there a relationship between objectives in attending the Institute and behavior subsequent to Institute attendance? This question undergirds null hypotheses 7 and 8. To answer it, the alternative hypotheses were tested with the Spearman rank correlation coefficient test. The hypotheses were:

- 7. H<sub>O</sub> There is no relationship between extensiveness of diffusion activities and differences among participants in reasons for attending the institute.
- H<sub>l</sub> Extensiveness of diffusion activities is positively related to differences among participants in reasons for attending the institute.
- 8.  ${\rm H}_{\rm O}$  There is no relationship between extent of adoption of institute concepts by colleagues and differences among participants in reasons for attending the institute.
- H<sub>1</sub> Extent of adoption of institute concepts by colleagues is positively related to differences among participants in reasons for attending the institute.

The alternative hypotheses were subjected to the Spearman rank correlation coefficient test with the following results.

The value of  $r_s$  and its associated probability for hypothesis 7 was  $r_s = .41$ , thus p < .05. This probability was greater than the previously set level of significance,  $\angle = .05$ , hence the null hypothesis was rejected and the alternative hypothesis which posits a relationship between participants' reasons for attending the Institute and extensiveness of diffusion activities accepted.

The value of  $r_s$  and its associated probability for hypothesis 8 was  $r_s = .18$ , and p < .05. This probability was less than the previously set level of significance,  $\sim$  = .05, therefore, null hypothesis 8 was accepted. No relationship was found between participants' reasons for attending the Institute and subsequent adoption of Institute concepts by colleagues. The results of hypotheses 7 and 8 are presented in Tables 4.7 and 4.8.

# Adoption of Institute Concepts

Implied in the definition of diffusion used in this study (Chapter I, p. 18) was the idea that participants were adopters of Institute concepts before they became secondary sources of the concepts. Classroom teachers were the only participants on whom this theory could be tested, for they work directly with children who are really the ultimate receivers of the innovations. Hypotheses 9 and 10 were designed to determine the relationship between self-adoption and diffusion, and self-adoption and colleague-adoption.

Table 4.7--Correlation between participants' reasons for attending the Institute and the number of concepts diffused

		Ranks	
Partici- pant	IAR	Number of Con- cepts Diffused	Statistic
4730525022341601478221893389215679212411631263	2224488888883.3.3.5.5.5.5.5.5.5.5.5.5.5.5.5.5	15 13 2 51.5 7 25.5 15.5 20.5 15.3 27 23 23 24 29 29 24 29 29 20.5 19 20.5 19 20.5 19 20.5 19 20.5 19 20.5 19 20.5	$r_s = .41$ $p < .05$

Table 4.8--Correlation between participants' reasons for attending the Institute and adoption of Institute concepts by colleagues

	-	Ranks	
Partici- pant	IAR	Number of Con- cepts Adopted	Statistic
4730 223 3022 3160 1478 282 1893 3892 1567 1912 1912 1912 1913 1913 1913 1913 1913	222448888883.3.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.	12 5.5 5.5 21.5 27.5	$r_s = .18$ $p > .05$

Specifically, the hypotheses were:

9. H<sub>O</sub> There is no relationship between extensiveness of diffusion activities and self-adoption of institute concepts by teacher participants.

H<sub>1</sub> Extensiveness of diffusion activities is positively related to self-adoption of institute concepts by teacher participants.

10. H<sub>O</sub> There is no relationship between extent of adoption of institute concepts by colleagues and self-adoption of institute concepts by teacher participants.

H<sub>1</sub> Extent of adoption of institute concepts by colleagues is positively related to self-adoption of institute concepts by teacher participants.

The alternative hypotheses were subjected to the Spearman rank correlation coefficient test with the following results:

The value of  $r_s$  and its associated probability for hypothesis 10 was  $r_s = .48$ , with p $\angle$  .05. Since this probability was equal to the five percent level of acceptability,

✓ = .05, the null hypothesis was rejected and the alternative hypothesis accepted. This hypothesis posits a relationship between participants' self-adoption of Institute concepts and adoption of the concepts by colleagues. The results of hypotheses 9 and 10 are presented in Tables 4.9 and 4.10.

Table 4.9--Correlation between classroom teachers' selfadoption of Institute concepts and the number of concepts diffused

	Ra	nks	
Partici- pant	Self-Adoption of Concepts	Number of Con- cepts Diffused	Statistic
7 5 20 25 24 3 3 9 19 20 21 18 34 28 22 4	1 2 3.5 3.5 5 6 7 9 9 11.5 13.5 13.5 16.5 16.5	1 9.5 5.5 2 9.5 4 7.5 12 14 5.5 17 7.5 3 12 15 18 16 12	$r_s = .66$ $p < .05$

When compared with administrators and specialists, classroom teachers' diffusion impact was less (see pp. 91 and 92). Extensiveness of diffusion activities and the number

Table 4.10--Correlation between classroom teachers' selfadoption of Institute concepts and adoption of Institute concepts by colleagues

		Ranks	
Partici- pant	Self-Adoption of Concepts	Colleagues' Adoption of Concepts	Statistic
7 5 20 25 24 32 3 19 29 10 21 18 34 28 22 4	1 2 3.5 3.5 5 6 7 9 9 11.5 11.5 13.5 13.5 16.5 16.5	4 4 4 11 14 15 4 11 18 8.5 4 16 11 13 17 8.5	$r_s = .48$ $p < .05$

of concepts adopted by colleagues were considerably less than for staff in the other groups. Yet when professional position was held constant, differences between individual participants were clearly evident. Those who tended to adopt Institute concepts in their own classrooms also tended to be more active disseminators of Institute concepts.

The alternative hypotheses are summarized in Table 4.11 with a designation of their level of significance. Five were significant and five were not.

Table 4.11--Statistical significance of the hypotheses

	Hypotheses	Significance
1.	H <sub>1</sub> The three groups of educators are not the same in extensiveness of diffusion activities.	
2.	H <sub>1</sub> Extent of adoption of institute concepts by colleagues is not the same for three groups of educators.	the
3.	H <sub>1</sub> Extensiveness of diffusion activities positively related to differences amorparticipants in self-perception of leadership behavior.	ng
4.	H <sub>1</sub> Extent of adoption of institute con by colleagues is positively related to dences among participants in self-percept of leadership behavior.	iffer-
5.	H <sub>1</sub> Extensiveness of diffusion activities positively related to differences among participants in self-perception of responsitive for diffusion of institute conceptions.	ng nsi-
6.	H <sub>1</sub> Extent of adoption of institute comby colleagues is positively related to deferences among participants in self-percof responsibility for diffusion of institution concepts.	lif- eption
7.	H <sub>1</sub> Extensiveness of diffusion activities positively related to differences and participants in reasons for attending the institute.	ng
8.	H <sub>1</sub> Extent of adoption of institute concepts by colleagues is positively relate to differences among participants in reasons for attending the institute.	ed
9.	H <sub>1</sub> Extensiveness of diffusion activities positively related to self-adoption of institute concepts by teacher participant	$\mathbf{f}$
10.	H <sub>1</sub> Extent of adoption of institute concepts by colleagues is positively relate to self-adoption of institute concepts b teacher participants.	d

### Retest Reliability

Seven participants were visited and a short form of the reactionaire was verbally administered. To determine the reliability coefficient, the short and long forms of the reactionaire were compared using the Spearman rank test. Results obtained for  $r_s$  and its associated probability for Part B of the reactionaire (diffusion and adoption) showed that  $r_s = .98$ , with p< .01. Since this probability exceeds the set level of significance, < = .05, it was concluded that data collected with the short form were reliable. Table 4.12 includes these results and the rankings for the seven participants on the short and long forms of the reactionaire.

Table 4.12--Correlation of the long and short forms of the reactionaire for seven Michigan participants

	Ra	inks	
Participant	Long Form	Short Form	Statistic
27 32 9 12 23 33	1.5 1.5 3.5 5	1.5 1.5 4 5.5 5.5 7	$r_s = .98$ $p < .01$

Data collected on school visits with a sample population of the participants corresponded closely to responses of these participants on the long form of the reactionaire.

Recall for the number of persons contacted for each concept

appeared to have been less accurate than recall for specific concepts shared with other teachers. However, this did not impair the analysis since the correlation was based on specific concepts shared rather than number of persons contacted.

Participants were asked to estimate by months the number of discussions they had had with others concerning Institute concepts. Such information would identify periods of greatest activity as compared with less active periods. Since the investigator neglected to inform participants to keep a monthly record of contacts (with groups or individuals), recall for this factor was poor. However, it appears that the number of separate contacts rose from a mean of about twelve in September to fourteen in October. The number decreased in November and in succeeding months. A measure of the effects of the Institute over time is illustrated in Figure 3.

# Descriptive Analysis

Extent of Use and Diffusion

Which concepts were used and diffused most frequently by Institute participants? Reactionaire data showed that participants began using Institute concepts early in September, 1966. A category labeled "When Use Began" showed that more concepts were implemented in September than in any other month (Figure 4). Every practice and procedure

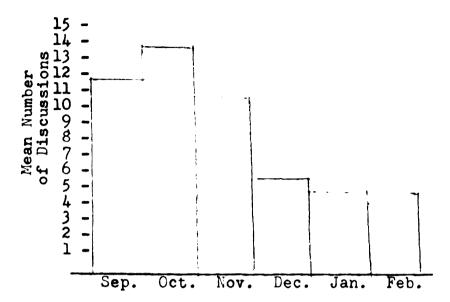


Figure 3--Mean number of discussions held by month by participants in Michigan with colleagues about Institute recommended concepts.

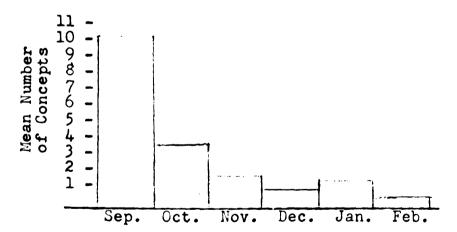


Figure 4--Mean number of Institute recommended concepts implemented by month in the classrooms of teacher participants.

was being used by at least one teacher participant. A similar pattern was noted for diffusion. Every concept had been shared with other teachers by at least three participants. These data seemed to affirm the significant value

of the Institute to participants. Fifteen of the fortynine concepts included in the reactionaire had been shared by at least fifty-nine (59%) of the participants. A list of these concepts is presented in Table 4.13.

Figure 4 shows that a mean of ten and one-half concepts were implemented by the eighteen teacher participants in September. The number decreased to four in October, two in November and one in December. The average rose to one and one-half in January and fell to less than one (three-fourths) in February.

Table 4.13 shows that concepts most frequently shared dealt primarily with the use of trade books and application of critical reading skills in various subject areas. These concepts not only occupied a place of prominence in course content during the Institute but appeared to be concepts that easily and clearly could be communicated to other teachers. These were followed closely by concepts related to knowledge of authors and literary techniques.

In constructing the reactionaire, eight broad areas of emphasis were identified and specific concepts that were discussed in daily sessions were classified. While concepts were not categorized on the reactionaire sent to participants, they have been in Table 4.14 for convenience in analyzing data.

Table 4.13--Institute recommended concepts shared by fiftynine percent of the participants with other
teachers

		-
	Concept	No. of Participants Sharing Concept
1.	Fiction trade books are used in the teaching of language arts and litera	iture. 32
2.	Pupils are taught to use critical reskills (such as classifying, comparison contrasting ideas, identifying cause effect relationships, distinguishing from opinion, finding information to or disprove a statement, etc.) in the social studies.	ng and e and g fact o prove
3.	Pupils are taught how to examine the plot, characters, and style of a sto	
4.	Pupils are taught how to analyze the types of news events reported in the newspaper.	
5.	Elementary English is used in keepin of new books for children.	g abr <b>east</b> 24
6.	Fiction trade books are used in the of social studies.	teaching 24
7.	Non-fiction trade books are used in teaching of language arts and litera	
8.	Non-fiction trade books are used in teaching of social studies.	the 24
9.	Pupils are taught how to write in ser forms (e.g., original poetry, stories essays, plays, and biographies).	
10.	Pupils are taught how to find information prove or disprove a statement.	ation to 24
11.	Pupils are taught how to distinguish from opinion in general.	fact 23
12.	Pupils are taught how to recognize the petency of an author to write about a subject.	
13.	The private interview is used as a tentor finding out about children's readinterests.	chnique ing 22

# Table 4.13--Continued

# Concept No. of Participants Sharing Concept 14. Films related to literature and social studies are used in classroom instruction. 20 15. Television programs that will stimulate reading are assigned for home or school viewing. Table 4.14--Copy of reactionaire showing classification of items and items most frequently shared with other teachers\*

#### Item

### Newspapers and Magazines

- \*\* 1. Pupils are taught how to analyze the major types of news events reported in the daily newspaper.
  - 4. Pupils are taught to examine two or more independent newspapers to see how they differ in the treatment, amount of space and prominence (location in the paper) given to the same news event.
  - 8. Pupils are taught how to critically evaluate political and editorial comments and/or cartoons.
- 10. Pupils are taught to read letters to the editor for a point of view.
- 12. Pupils are taught to discriminate a factual report from an interpretive report of the same news event.
- 14. Pupils are taught to read magazine articles to get more detailed discussions of certain news events that appear in the daily newspaper.
- 20. Pupils are taught how to integrate news stories from newspapers and/or magazines with the subject matter in textbooks.

# Table 4.14--Continued

#### Item

- 21. Pupils are taught to read critical reviews and comments (on items such as children's books, drama, art, movies, and radio and television programs).
- 27. Pupils are taught to appraise the types and content of advertisements appearing in print as compared with those appearing on radio and television.

#### Trade Books

- \*\* 2. Fiction trade books are used in the teaching of language arts and literature.
- \*\* 9. Fiction trade books are used in the teaching of social studies.
- \*\*11. Non-fiction trade books are used in the teaching of language arts and literature.
- \*\*15. Non-fiction trade books are used in the teaching of social studies.
  - 28. Fiction trade books are used in the teaching of science.
  - 30. Non-fiction trade books are used in the teaching of mathematics.
  - 35. Non-fiction trade books are used in the teaching of science.

#### Audio-Visual and Community Resources

- \*\*13. Films related to literature and social studies are used in classroom instruction.
- \*\*29. Television programs that will stimulate reading are assigned for home or school viewing.
  - 43. Pupils' creative activities are tape-recorded for use in classroom instruction.
  - 46. Tape and disk recordings of television and radio programs are used in classroom instruction.

# Table 4.14--Continued

Item	
48. Pupils are taken on field trips.	
49. Check the following places to which taken.  Community libraries  Book fairs  Publishing firms  Newspaper plants Others (specify)	pupils have been
Authors and Literary Technic	ques
** 6. Pupils are taught how to examine the characters, and style of a story.	theme, plot,
16. Pupils are taught how to recognize an point of view and possible biases.	n author's purpose
**17. Pupils are taught how to write in second original poetry, stories, essays, planaphies).	
18. Check the following forms that are us  Poetry Stories Essays Plays Biographies	sed.
19. Pupils are taught how to recognize the	he competency of

- \*\*10 an author to write about a given subject.
  - 22. Pupils are taught to use critical reading skills (such as classifying, comparing and contrasting ideas, identifying cause and effect relationships, distinguishing fact from opinion, finding information to prove or disprove a statement, etc.) in their study of science and scientific problems.

# Table 4.14--Continued

#### Item

- 24. Pupils are encouraged to study in depth the philosophy, style, themes and/or techniques of a favorite author or illustrator (e.g., read all the juvenile books written by the author).
- 25. Pupils are taught to compare the techniques used by different authors in the treatment of a single topic.
- \*\*41. Pupils are taught how to find information to prove or disprove a statement.

## Propaganda

- 3. Pupils are taught how to evaluate materials that appear to make use of standard propaganda devices such as "name calling" and "glittering generalities."
- \*\* 5. Pupils are taught to use critical reading skills (such as classifying, comparing and contrasting ideas, identifying cause and effect relationships, distinguishing fact from opinion, finding information to prove or disprove a statement, etc.) in the social studies program.
  - 33. Pupils are taught how to recognize information that appears to make use of the "jump on the band wagon" theme.
- \*\*36. Pupils are taught how to distinguish fact from opinion in general.
  - 39. Pupils are taught how to recognize emotional reactions and motives.

#### New Books for Children

- \*\* 7. Elementary English is used in keeping abreast of new books for children.
  - 34. The Children's Catalog is used in locating books to meet the reading interests and needs of children.

### Table 4.14---Continued

#### Item

- 37. Top of the News is used in keeping abreast of new books for children.
- 40. The Bulletin of the Center for Children's Books is used to keep abreast of books for children.
- 44. The Horn Book Magazine is used in keeping abreast of new books for children.
- 47. The Booklist of the American Library Association is used in keeping abreast of new books for children.

### Reading Interests

- 26. Written questionnaires are used to discover children's reading interests.
- \*\*31. The private interview is used as a technique for finding out about children's reading interests.
  - 38. Pupils' written self-reports are used to discover their reading interests.
  - 42. Library circulation tallies on books of certain subject matter are used to discover the children's reading interests.
- 45. Pupils's oral self-reports in class are used to discover their reading interests.

#### Evaluation

- 23. Teacher-prepared, informal tests are used to determine pupils' growth in the ability to make objective, critical appraisal of reading materials.
- 32. A file of practice questions and associated answers about current materials is kept in the classroom for pupil use and self-appraisal.

<sup>\*</sup>Item numbers correspond to those on the reactionaire presented in Appendix B.

<sup>\*\*</sup>Concepts shared by fifty-nine percent of the participants.

That participants were rather highly selective in the concepts that were most frequently shared can be seen readily in Table 4.14. Only one concept with respect to newspapers and none in the area of evaluation appeared among those most frequently shared. Concepts that were shared least are highlighted in Table 4.15.

Table 4.15 -- The least shared concepts

Concept	No. of Participants Sharing Concept
27. Pupils are taught to appraise the tand content of a advertisements apprint as compared with those appring on radio and television.	pearing
28. Fiction trade books are used in the ing of science.	teach-
30. Non-fiction trade books are used in teaching of mathematics.	the 6
32. A file of practice questions and asciated answers about current materiakept in the classroom for pupil use self-appraisal.	als is
37. Top of the News is used in keeping a of new books for children.	abreast 3
40. The Bulletin of the Center for Child Books is used to keep abreast of book children.	
42. Library circulation tallies on books certain subject matter are used to dichildren's reading interests.	of iscover 7
6. Tape and disk recordings of television radio programs are used in classroom struction.	on and in- 9

It would appear that certain characteristics (relative advantage, compatibility, complexity, and/or communicability) of the concepts presented in Table 4.15 militated against their being shared more widely. For example, numbers 28 and 30 are practices relative to the use of trade books (an area of widespread diffusion). However, the use of fiction trade books in science (number 28), and nonfiction trade books in mathematics (number 30) appeared to have been incompatible with the past experiences and/or perception of participants regarding proper use of trade books. Despite the fact that fiction trade books, such as A Wrinkle in Time by D'Engle, were discussed in connection with the teaching of science, participants seemed not to have perceived this practice as an innovation to be shared. Too, participants seemed unable internally to differentiate fiction and non-fiction trade books, though both could be used in teaching mathematics. One other example should suffice to illustrate the case in point. Number 32 concerned keeping a file for pupil use of current critical reading materials with associated answers in the classroom. Apparently, this seemed to have been a complex practice for participants because it implied changing materials frequently and structuring answers so that pupils could have a

Lionberger, "Diffusion of Innovations," p. 38.

frame of reference for self-appraisal. Only seven participants shared this concept.

With how many people were each of the Institute concepts shared? In general, diffusion activities were minimal for most participants. The most widely diffused concept reached a mean of sixteen and six-tenths (16.6) teachers. Participants reported many reasons for their limited diffusion activities. These are discussed in the section on factors limiting diffusion activities. The mean number of teachers contacted for each concept is presented in Table 4.16.

Most participants felt that they had exerted a positive influence on library facilities in their school. During the Institute, improvement of school libraries was a focal point of interest for several participants. In a few cases, participants' schools did not contain either central libraries or learning centers. On returned reactionaires, at least one participant indicated that he had been instrumental in establishing a central library in his school, two said that plans were under way to establish central libraries, two indicated that their libraries were being expanded to encompass the concept of a learning center, and three said they had been selected to prepare library book orders for 1967-68. Other types of influence were evident in the acquisition by participants' schools of a large number of Institute-recommended trade books.

Table 4.16--Mean number of teachers with whom each concept was shared

	Concept		umber of Contacted
	Newspapers and Magazi	ines	
1.	Pupils are taught how to analyze the types of news events reported in the newspaper.		10.0
4.	Pupils are taught to examine two or independent newspapers to see how the fer in the treatment, amount of space prominence (location in the paper) go to the same news event.	ey dif- e and	6.6
8.	Pupils are taught how to critically uate political and editorial comments and/or cartoons.		6.8
10.	Pupils are taught to read letters to editor for a point of view.	the	6.5
12.	Pupils are taught to discriminate a tual report from an interpretive report the same news event.	fac- ort	7.2
14.	Pupils are taught to read magazine as cles to get more detailed discussions certain news events that appear in the daily newspaper.	5 of	5.2
20.	Pupils are taught how to integrate ne stories from newspapers and/or magazi with the subject matter in textbooks.	ines	7.1
21.	Pupils are taught to read critical reand comments (on items such as childr books, drama, art, movies, and radio television programs).	en's	3.7
27.	Pupils are taught to appraise the type and content of advertisements appearing in print as compared with those appearon radio and television.	ng	3.2

Table 4.16--Continued

	Concept		umber of Contacted
	Trade Books		
2.	Fiction trade books are used in the ing of language arts and literature.	teach-	16.6
9.	Fiction trade books are used in the ing of social studies.	teach-	7.3
11.	Non-fiction trade books are used in teaching of language arts and litera		9.8
15.	Non-fiction trade books are used in teaching of social studies.	the	8.9
28.	Fiction trade books are used in the ing of science.	teach-	4.3
30.	Non-fiction trade books are used in teaching of mathematics.	the	1.9
35.	Non-fiction trade books are used in teaching of science.	the	5.5
	Audio-Visual and Community Re	sources	
13.	Films related to literature and soci studies are used in classroom instru		8.8
29.	Television programs that will stimulareading are assigned for home or schoolewing.		9.2
43.	Pupils' creative activities are tape- recorded for use in classroom instruc	- ction.	11.6
46.	Tape and disk recordings of televisic radio programs are used in classroom struction.	on and in-	4.0
48.	Pupils are taken on field trips.		7.9
*49.	Check the following places to which p have been taken.	pupils	

# Table 4.16--Continued

	Concept Te		umber of
	Community libraries Book fairs Publishing firms Newspaper plants Others (specify)	achers	Contacted
	Authors and Literary Techr	niques	
6.	Pupils are taught how to examine the t plot, characters, and style of a story		11.1
16.	Pupils are taught how to recognize an author's purpose, point of view and poble biases.	ssi-	13.8
17.	Pupils are taught how to write in seve forms (e.g., original poetry, stories, essays, plays, and biographies).	eral	11.9
*18.	Check the following forms that are use	∍d.	
	Poetry Stories Essays Plays Biographies		
19.	Pupils are taught how to recognize the petency of an author to write about a subject.	e com- given	13.4
22.	Pupils are taught to use critical read skills (such as classifying, comparing and contrasting ideas, identifying cau and effect relationships, distinguishif fact from opinion, finding information prove or disprove a statement, etc.) it their study of science and scientific problems.	ise ing n to	5.7
24.	Pupils are encouraged to study in dept philosophy, style, themes and/or techn of a favorite author or illustrator (e read all the juvenile books written by the author).	e.g.,	9.2

# Table 4.16--Continued

	Mean Number of
Concept	Teachers Contacted
25. Pupils are taught to compare the techniques used by different authors in the treatment of a single topic.	-
41. Pupils are taught how to find informat to prove or disprove a statement.	tion 11.3
Propaganda	
3. Pupils are taught how to evaluate mate that appear to make use of standard preganda devices such as "name calling" a "glittering generalities."	copa-
5. Pupils are taught to use critical read skills (such as classifying, comparing contrasting ideas, identifying cause a effect relationships, distinguishing f from opinion, finding information to p or disprove a statement, etc.) in the social studies program.	; and ind act
33. Pupils are taught how to recognize inf mation that appears to make use of the "jump on the band wagon" theme.	
36. Pupils are taught how to distinguish for from opinion in general.	9.2
39. Pupils are taught how to recognize emo- tional reactions and motives.	10.3
New Books for Children	
7. Elementary English is used in keeping a of new books for children.	ab <b>re</b> ast 6.9
34. The Children's Catalog is used in locat books to meet the reading interests and needs of children.	
37. Top of the News is used in keeping abre of new books for children.	1.6

# Table 4.16--Continued

	Concept T	Mean Number of eachers Contacted
40.	The Bulletin of the Center for Children's Books is used to keep abreast of books for children.	3.4
44.	The Horn Book Magazine is used in keeping abreast of new books for children.	p- • 5.6
47.	The Booklist of the American Library Association is used in keeping abreast of new books for children.	8.3
	Reading Interests	
26.	Written questionnaires are used to discover children's reading interests.	8.8
31.	The private interview is used as a tec nique for finding out about children's reading interests.	
38.	Pupils' written self-reports are used discover their reading interests.	to 10.2
42.	Library circulation tallies on books of certain subject matter are used to discover the children's reading interests.	-
45.	Pupils' oral self-reports in class are used to discover their reading interest	ts. 8.5
	Evaluation	
23.	Teacher-prepared, informal tests are us to determine pupils' growth in the abil ity to make objective, critical apprais of reading materials.	<b>.</b> -
32.	A file of practice questions and associanswers about current materials is kept the classroom for pupil use and selfappraisal.	ated in 4.7

<sup>\*</sup>Items 18 and 49 were not included in the computation.

## Diffusion Strategies

Which diffusion activities were considered by Institute participants to have been most effective? Of ten stated activities, participants were asked to indicate the three they found most effective in sharing Institute concepts with other teachers. Analysis of the responses revealed that informal discussion with individual teachers and presentations at faculty meetings were considered most effective. However, the apparent effectiveness of these activities may be due in part to some participants who limited their response only to these modes. Three other activities tied for third in frequency of mention. A list of the most effective activities is presented in Table 4.17.

Table 4.17--The most effective activities utilized in diffusion of Institute concepts

Activity	Number of Participants Utilizing Activity
Informal discussion	29
Faculty meeting	12
Small group meeting (less than 10 per	sons) 11
Assistance in the preparation of a le	sson 11
Distribution of duplicated or printed materials on critical reading skills	11

Which diffusion activities were used most frequently by Institute participants? Sociologists identify four or

five stages in the adoption process, defined as "the mental process through which an individual passes from first hearing about an innovation to final adoption." These are: (a) awareness; (b) interest; (c) evaluation; (d) trial; and (e) adoption. Specific channels of communication have been found effective for different stages. Thus, individuals who rely almost solely on one form of communication are hypothesized to experience less success in getting others to adopt an innovation. Table 4.18 presents the activities engaged in most frequently by the three groups of educators.

Administrators and specialists made greater use of certain activities than teachers. Specialists tended to use demonstration lessons and assistance in preparation of lessons, while administrators used distribution of printed materials, faculty meetings, and small group meetings. Perhaps the reason teachers employed fewer diffusion activities might be attributed to their inordinate dependence on informal discussion as their major mode of dissemination. Six of the eighteen teachers in the study indicated this to be their only diffusion strategy. Some activities seldom were used by any participant. Initiation of an in-service education program was one of the

<sup>&</sup>lt;sup>2</sup>Rogers, <u>Diffusion of Innovations</u>, p. 76.

<sup>&</sup>lt;sup>3</sup><u>Ibid.</u>, pp. 98-102.

<sup>4</sup>Coleman, Katz and Menzel, Medical Innovation: A Diffusion Study, p. 57.

these activities they would reach a larger population and the effects on teaching practices would be more lasting.

# Factors Limiting Diffusion Activities

What factors were identified by Institute participants as limiters of diffusion? Returned reactionaires revealed that fourteen participants (approximately onethird) underwent some change in status or assignment in the 1966-67 school year. Nine went to new schools or school systems, three were assigned new roles, and two were involved in some type of reorganization in their schools. For these participants, adjustment to new situations and limited rapport with new school personnel were the major barriers to sharing. Changes in schools and assignment are presented in Table 4.19.

That educational workers are highly mobile is evident from Table 4.19. Of the fourteen changes, seven were specialists. Fifty percent of the specialists changed positions during the year following the Institute. Despite this handicap, specialists engaged in more diffusion activities than the others (see Table 4.1). This seemed to suggest that in addition to the probable advantage of being better prepared as a group as measured by earned degrees (Table 3.2), specialists had access to larger populations.

Table 4.19--Number of participants by professional position involved in changes in schools and/or assignment in 1966-67

Position of Participant				
Type of Change	Administrator	Specialist	Teacher	Totals
New School		2	3	5
New School and New Role				
Administrator				
Specialist			1	1
Teacher	1	1		2
More Schools to Service		1		1
New Principal			ı	ı
Reorganization of School from 1-6 to K-4				1
New Role				
Administrator		1		1
Specialist				
Teacher		2		2
Totals	2	7	5	14

Other factors limiting diffusion activities were:

- disinterest and lack of support by administrators;
- 2. difficulties arising from lack of time to engage in sharing activities;

- 3. inadequate library facilities and materials;
- 4. difficulty in finding ways to reach a larger population; and
- 5. need for supportive visits from the Institute staff at strategic points during the school year.

Studies by Karbal and Johnson authenticate the validity of the first factor.<sup>5, 6</sup> They assert that teachers who are expected to influence the instructional practices of their colleagues must have the approval and support of administrators in order to increase their credibility with other teachers.

Time in which to share and ways of sharing were problems faced largely by teacher participants. Almost without exception, they indicated that the responsibility and isolation of classroom teaching limited the number of contacts teachers had with each other. They suggested that perhaps Institute personnel should make a formal request that teaching loads be lightened for Institute participants so that they will have time to engage in sharing activities. Also, it was felt that more Institute time should be spent on diffusion strategies.

<sup>5</sup>Karbal, "In-Service Education," p. 62.

Donald Johnson, "Title III and the Dynamics of Educational Change in California Schools," in <u>Innovation in Education</u>, ed. by Matthew B. Miles (New York: Bureau of Publications, Teachers College, Columbia University, 1964), pp. 181-82.

#### CHAPTER V

### SUMMARY AND CONCLUSIONS

This study investigated the extensiveness of diffusion activities engaged in by participants of an NDEA
Institute in critical and appreciative reading in implementing Institute concepts in their schools. A two-part
reactionaire was developed to determine extensiveness of
diffusion activities, as measured by (a) the number of concepts diffused, and (b) the number of concepts adopted by
colleagues. Professional position, self-perception of leadership behavior, self-perception of diffusion responsibility, rationale for attending the Institute, and self-adoption
of Institute concepts were independent variables. Measures
of these variables were correlated with the measures of
diffusion activities to test ten null hypotheses.

# Summary of Findings

Hypotheses 1 and 2 were tested to assess the importance of professional position.

1. H<sub>O</sub> There is no difference in extensiveness of diffusion activities among administrators, specialists, and classroom teachers.

2. H<sub>O</sub> There is no difference in extent of adoption of institute concepts by colleagues of administrator, specialist, and classroom teacher participants.

Professional position was related to the number of concepts diffused at < .05 level of significance, but was not related to the number of concepts adopted by colleagues. Consequently, null hypothesis I was rejected and null hypothesis 2 was accepted.

Leadership behavior was tested in hypotheses 3 and 4.

- 3. H<sub>O</sub> There is no relationship between extensiveness of diffusion activities and differences among participants in self-perception of leadership behavior.
- 4. H<sub>O</sub> There is no relationship between extent of adoption of institute concepts by colleagues and differences among participants in self-perception of leadership behavior.

Leadership behavior was neither related to the number of concepts diffused nor to the number of concepts adopted by colleagues. The correlations failed to achieve the set level of significance of .05. As a result, null hypotheses 3 and 4 were accepted.

Hypotheses 5 and 6 were tested to ascertain the influence of self-perception of diffusion responsibility on diffusion activities.

- 5. H<sub>O</sub> There is no relationship between extensiveness of diffusion activities and differences among participants in self-perception of responsibility for diffusion of institute concepts.
- 6. H<sub>0</sub> There is no relationship between extent of adoption of institute concepts by colleagues and differences among participants in self-perception of responsibility for diffusion of institute concepts.

The variable was significantly related to the number of concepts diffused at the <.05 level. However, it was not related to the number of concepts adopted by colleagues.

On that ground, null hypothesis 5 was rejected and null hypothesis 6 was accepted.

Hypotheses 7 and 8 were tested to assess the importance of reasons for attending the Institute in diffusion activities.

7. H<sub>O</sub> There is no relationship between extensiveness of diffusion activities and differences among participants in reasons for attending the institute. 8. H<sub>O</sub> There is no relationship between extent of adoption of institute concepts by colleagues and differences among participants in reasons for attending the institute.

Reasons for attending the Institute were positively related to the number of concepts diffused at the <.05 level. The variable was not related to the number of concepts adopted by colleagues. Hence, null hypothesis 7 was rejected and null hypothesis 8 was accepted.

Self-adoption of Institute concepts was tested in hypotheses 9 and 10 to ascertain the importance of this variable in diffusion activities.

- 9. H<sub>O</sub> There is no relationship between extensiveness of diffusion activities and self-adoption of institute concepts by teacher participants.
- 10. H<sub>O</sub> There is no relationship between extent of adoption of institute concepts by colleagues and self-adoption of institute concepts by teacher participants.

Self-adoption of Institute concepts was positively related to both the number of concepts diffused and the number of concepts adopted by colleagues at <.05 level of significance.

Consequently, null hypotheses 9 and 10 were rejected.

Hypotheses were written in pairs with the odd numbered hypotheses dealing with extensiveness of diffusion activities while the even-numbered hypotheses were concerned with adoption by colleagues. Null hypotheses 3 and 4 were accepted and null hypotheses 9 and 10 were rejected. Null hypotheses 1,

5, and 7, concerned with extensiveness of diffusion activities were rejected. However, with their counterparts, 2, 6, and 8, the null hypotheses were accepted.

All Institute concepts were used and/or shared by participants. Concepts relative to trade books, sources of information about books, authors and literary techniques, and application of critical reading skills were more extensively shared than other concepts. Nevertheless, no concept was shared by less than three participants. Sharing (diffusion) was more widespread for specialists than for administrators or teachers. Teachers appeared to have been in the least tenable position for achieving this objective.

Although several strategies were used by participants in diffusing Institute concepts, informal discussion, faculty meetings, and distribution of written materials were most frequently employed. Activities encompassing a number of strategies, such as in-service education and demonstration lessons, were little used. Preparation of a handbook on critical reading skills was not utilized by any participant.

Findings indicated that a number of perceived factors hindered extensiveness of diffusion activities. Fourteen (41%) of the participants changed jobs or schools after attending the Institute. These changes entailed making new professional contacts and adjustments, thus intensifying to some degree the effects of other factors on some participants. Non-supportive administrators, lack of time for sharing, lack of knowledge of effective ways of sharing, and lack of contact with

Institute Staff were notable among the variety of factors mentioned.

## Conclusions

Based on the findings presented above, the following conclusions were indicated:

- 1. The three groups of educators were not the same in extensiveness of diffusion activities. Specialists, followed closely by administrators, diffused a greater number of Institute concepts than the classroom teachers.
- 2. There was no difference in extent of adoption of Institute concepts by colleagues of administrator, specialist, and teacher participants.

Adoption of Institute concepts was difficult to assess. All participants made very conservative estimates of adoption; thus, the small numerical differences that did appear favored administrators over specialists and teachers, respectively. However, these differences were not statistically significant.

3. There was no relationship between extensiveness of diffusion activities and differences among participants in self-perception of leadership behavior.

Participants were quite homogeneous in scores earned on the LBDQ. Casual observations made of participants during the Institute revealed many

overt indications of differences in perseverance, role enactment, and self-confidence. Either the instrument employed was not sensitive enough to reveal these differences, or participants did not perceive readily their behavior as leaders. A third possibility was that the high percentage of changes in assignments and/or schools produced corresponding modifications in perception or behavior.

- 4. There was no relationship between extent of adoption of Institute concepts by colleagues and differences among participants in self-perception of leadership behavior.
- tively related to differences among participants in self-perception of responsibility for diffusion of Institute concepts. Participants who expressed strong responsibility for diffusion during the Institute reported greater diffusion activity than those indicating less responsibility.
- 6. No relationship was found between extent of adoption of Institute concepts by colleagues and differences among participants in self-perception of responsibility for diffusion of Institute concepts.

- 7. Extensiveness of diffusion activities was positively related to differences among participants in reasons for attending the Institute.

  Participants whose objectives were more altruistic reported a greater number of diffusion activities than others.
- 8. No relationship was found between extent of adoption of Institute concepts by colleagues and differences among participants in reasons for attending the Institute.
- 9. Extensiveness of diffusion activities was positively related to self-adoption of Institute concepts by teacher participants.

Comparisons made between the concepts teacher participants implemented in their classrooms and the concepts they diffused indicated that only those concepts that were being or had been tested by the participants were recommended to others. This pattern tended to corroborate findings from other diffusion studies that secondary sources of innovations are also adopters of the innovations.

10. Extent of adoption of Institute concepts by colleagues was positively related to self-adoption of Institute concepts by teacher participants.

Since this was the only instance in which the number of concepts adopted was significant, it was a relatively meaningless measure of extensiveness of diffusion activities for the larger population. Either the measure was inadequate or, as was stated previously, participants' appraisals were inadequate.

11. Diffusion activities were minimal for most participants because of some seemingly built-in obstacles.

Classroom teachers had little time and little administrative support for sharing activities.

Specialists were encumbered by changes in assignments. Administrators were not suited to the role of demonstrator of new instructional practices. Finally, and perhaps most important, little attention had been given to appropriate diffusion strategies for varied school personnel during the Institute.

12. Despite several factors that militated against greater effectiveness in diffusion activities, some observable changes occurred in schools as a result of participants' efforts.

## <u>Implications</u>

Numerous sources in the field of education have pointed to the need for critical, objective analyses of the effectiveness of NDEA Institutes as a means of improving instructional practices. Information of this type is so urgently desired that the Consortium of Professional Associations to Supervise Studies of Special Programs for the Improvement of Instruction in American Education (CONPASS) was commissioned to assess the impact of NDEA Institutes on participants. 1, 2, 3

The present study investigated one aspect of the problem--diffusion of Institute concepts to a wider population of educators. It has affirmed that some diffusion did occur. However, much of the diffusion activity was poorly articulated.

Diffusion in rural sociology and medical sociology was conducted according to a carefully planned diffusion strategy. Sponsoring agencies maintained close contact

James W. Brown, "NDEA Educational Media Specialists Institutes: Preliminary Review," Audiovisual Instruction, XI (December, 1966), 803.

<sup>&</sup>lt;sup>2</sup>Kenneth W. Mildenberger, "CONPASS: A Cooperative Arrangement for Assessing Federally Supported Institutes," <u>Audiovisual Instruction</u>, XI (December, 1966), 829-30.

Richard O. Ulin, "What Makes an NDEA Institute Different?" Peabody Journal of Education, XLIV (May, 1967) 360.

with intermediaries throughout the diffusion process.

Further, an effective diffusion strategy took into account the nature of the diffuser, the adopter, and the innovation and tried to achieve consonance between these dependencies. Findings of the present study suggest several implications with respect to diffusion strategy for special programs in which diffusion of improved instructional practices is a major objective.

Implications for Sponsors of Institutes and Workshops

Optimal selection of participants is vitally important to the success of programs. Attention should be given to the potential advantages and disadvantages of selecting participants in terms of diversity in geographical origin and job assignment. For certain types of programs, homogeneity is more effective than diversity. This would narrow the range of needs to be met and facilitate post-program follow-up.

Teachers appear to accept specialists as the appropriate demonstrators and legitimators of new instructional practices. These functions are role-expectations

<sup>4</sup>Guba, "Diffusion of Innovations," 292-95.

<sup>&</sup>lt;sup>5</sup>Final Report: Evaluation of National Defense Education Act Institute for Advanced Study in Reading, pp. 24, 25, 78.

held by teachers and administrators of the position. Therefore, it seems that specialists are the professionals who should be invited to attend programs of the type studied in this investigation if the objective is wider dissemination of recommended concepts.

The results of this study corroborate findings in the literature reviewed previously which suggest that participants who express strong altruistic feelings of responsibility toward their schools as a result of program participation and high-principled reasons for participating do more to diffuse recommended concepts. Assessment of these behavior tendencies should be a built-in evaluation of all participants of funded projects, and should be made prior to program attendance.

Participants of the 1965 NDEA reading institutes criticized many programs because no opportunity was provided for practical demonstrations with children of institute recommended concepts. The significant relationship found between both measures of diffusion activities and teachers' self-adoption of Institute concepts in the present study appeared to be indicative of the importance of the demonstration as an instructional technique that should be used in institutes and workshops. Thus, if applicability of recommended concepts is shown readily in programs (e.g., using

Final Report: Evaluation of National Defense Education Act Institutes for Advanced Study in Reading, p. 72.

children in demonstrations), it appears that more implementation and diffusion of concepts would result.

Follow-up of participants appears to be essential to the achievement of institute and workshop objectives. Results of the present study revealed that diffusion activities dropped markedly after a period of about two months of fairly active dissemination. Thus, it appeared that diffusion efforts might have received a needed "boost" if Institute staff members had been able to schedule help sessions for participants at designated periods between November and March. Sponsoring faculty should visit the schools of participants to provide help and support at strategic points in time.

Program objectives should be communicated clearly to administrative personnel in the schools of participants so that they understand the importance of providing support and time for dissemination activities. More effective dissemination may be possible if institute participation were based on agreements from school systems that participants would be given time and administrative support to assume leadership functions. 7

That participants who have the support of sponsors, superiors, and colleagues are likely to be more successful in diffusing recommended concepts is supported by the

<sup>7</sup>Johnson. "Title III." pp. 181-82.

literature. <sup>8, 9</sup> Therefore, it would appear that sponsors could insure a degree of success by inviting two persons, one of whom should be an administrator, from the same school system to attend the proffered programs.

Successful diffusion depends to a great extent upon diffusion strategy. Participants frequently seem unable to map an effective strategy. Some portion of institute and workshop time should be given to mapping a diffusion strategy that is consonant with the ability of the participants. Institute time devoted to analysis of participant change and the probable lack of school system and colleague change in the same dimensions would likely result in more effective diffusion activities.

Implications for Participants and Their Schools

Participants demonstrate dynamic leadership by employing every means possible to bring improved instructional practices to the attention of colleagues. Casual diffusion procedures are not adequate to arouse the interest of teachers who have many activities and responsibilities competing for their attention. In-service education programs, demonstration lessons, and teachers' handbooks appear to be important in

Chesler, Schmuck, and Lippitt, "The Principal's Role," p. 274.

<sup>9</sup>Lippitt, "Curriculum Development and Change," pp. 20-21.

effecting adoption and continued use of recommended innovations in instructional practices.

A significant proportion of the participants of the present study appeared not to have had a plan of action for initiating diffusion activities in their schools. Diffusion activities cannot be carried out effectively without the help and support of administrators and colleagues. Participants could work intensively with a few innovative teachers who would in turn serve as demonstrators for their close professional associates. In the present institute, diffusion was not a specified objective; with consequent lack of commitment by some participants to that end.

Administrators should be aware of the objectives of the institutes or workshops and involved in the recommendation of participants best suited to the achievement of these objectives. Arrangements for optimal use of participants when they return to their school systems is another useful role which could be assumed by administrators.

# Implications for Research

On-site evaluators of the 1965 instructional media and reading institutes suggested that selection of institute participants should be based upon leadership ability. 10 Though

<sup>10</sup> See page 8, Chapter I.

the present study did not reveal a relationship between diffusion activities and participants' self-perception of leader
behavior, informal observation suggested that this is an
area worthy of further investigation. A larger sample in
the research design might yield more meaningful results.
Using a different or a more refined instrument, or perhaps
a different approach to the problem would be more fruitful.

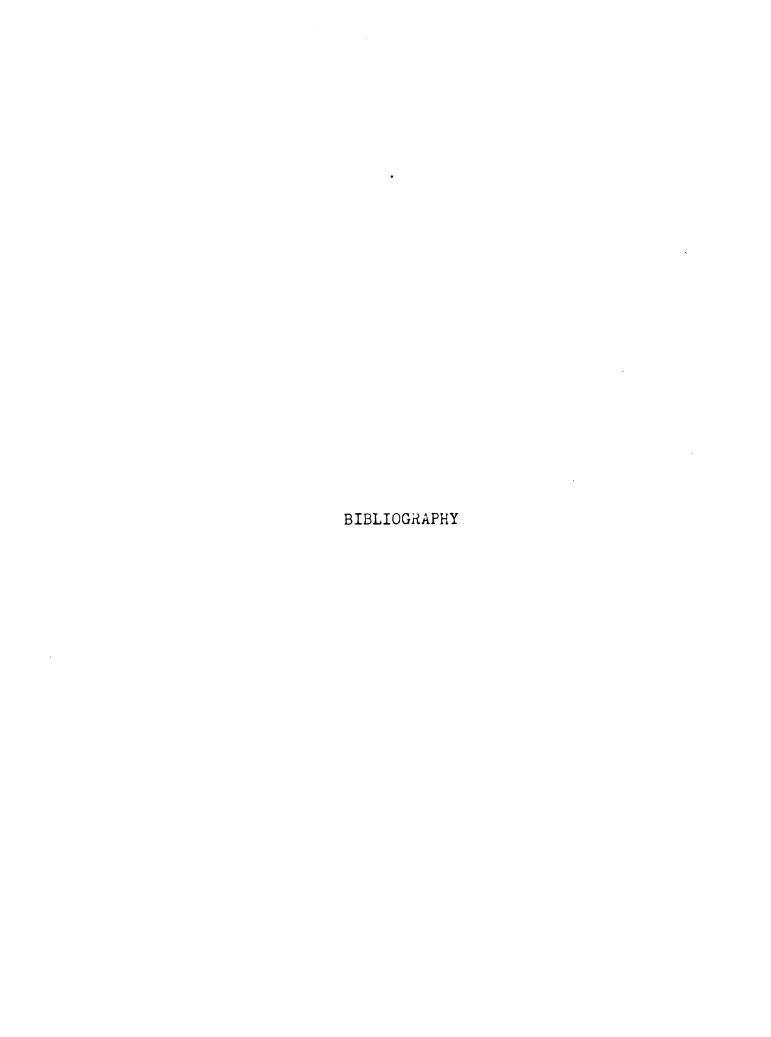
In the present study, the number of concepts adopted by colleagues was assessed through participants' responses to the question. Findings revealed that this was not a very meaningful measure of diffusion activities. Participants seemed not to have been in a tenable position to make accurate assessments of adoption. The limited range of reported activities seemed to be a function of limited amount of activity. To increase validity and precision of measurement in this area, adoption should be determined by contacting the receivers of an innovation.

Results of diffusion studies in other fields suggested the importance of interpersonal communication between persons of similar social status in the diffusion-adoption process. Specialists, who occupied a position midway between teachers and administrators, were the influentials in the present study. Whether this was a reflection of the horizontal flow of influence in which the advisor occupied a slightly higher social status than the advisees, or whether it was a reflection of the role-expectation held by teachers of the position

of specialist was not revealed. This dependency should be explored further in other studies.

As suggested by the literature, diffusion strategies should vary according to the particular abilities and characteristics of different types of intermediaries or diffusers. Optimal diffusion strategies for administrators, specialists, and classroom teachers could be determined in future research studies.

In summary, a source, a message channel, and a receiver are three indispensable elements of the diffusion process. Attention to one to the exclusion of the others mitigates diffusion effectiveness. In the diffusion of instructional innovations, sponsors of special programs are the sources; trainees are the message channels; and school systems are the receivers. Only close coordination of effort and feedback among these interdependent elements will result in improved instructional practices. Identification of ways in which better coordination and communication can be achieved is the responsibility of future research.



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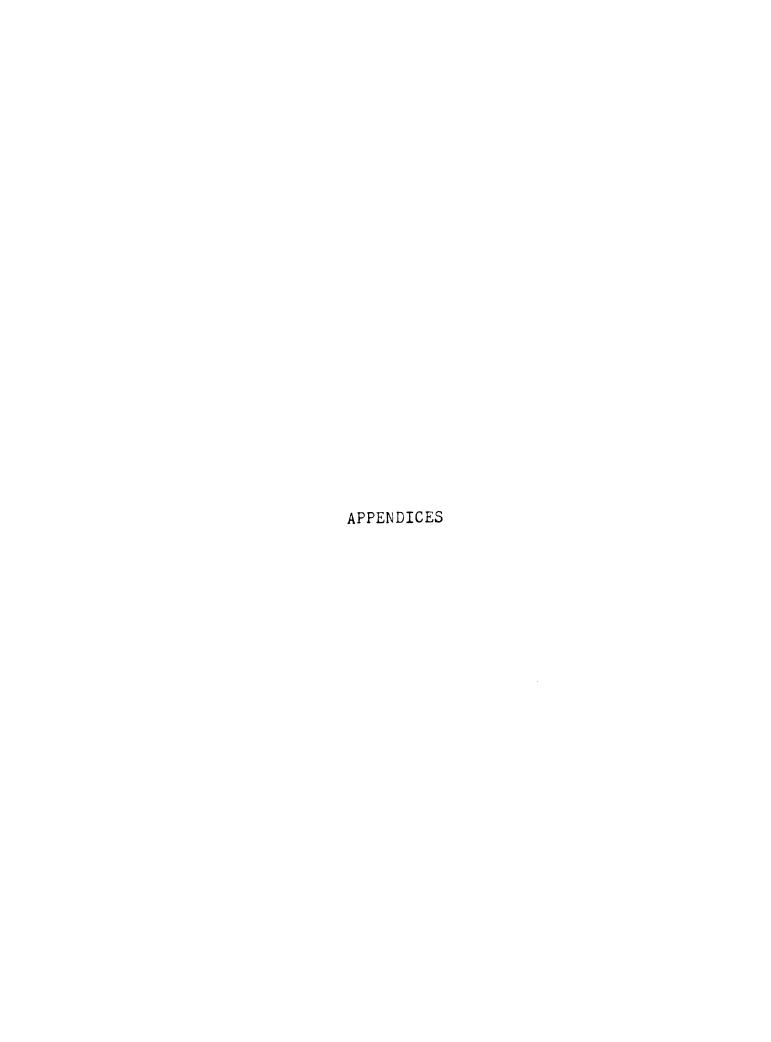
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# APPENDIX A

Program of the Institute

Participant Evaluation Questionnaire

## Program of the Institute

The program of the Institute consisted of three three-credit courses, the contents of which, in light of the purposes of the Institute, were closely related and integrated. Specific details of the Institute program are stated below:

Daily: 8:00 a.m. - 9:00 a.m.

Title: Children's Literature

Credits: 3 (Education 830A)

Instructor: Dr. Wanda Gray

## Content of Course:

- a. The study of the genres and techniques of the different kinds of literature (e.g., fiction contemporary and folk, adventure, biography, science, poetry, drama, essays and the like).
- b. Analytical study and appraisal of the appropriateness of the recent publications of the various literary forms with regard to such factors as expression of form, content, and theme and the probable potential of these pbulications for use in the development of facility in the various discriminating reading skills.
- c. The study of the reading interests of children as a significant factor affecting the development of

literary taste and appreciation.

Special lecture topics:

Miss Jean Karl, Editor of juvenile literature, Atheneum Publishing Company -- June 28-9

"The Constants of Good Literature"
"The Art of Illustrating Children's Books"

Dr. Charlotte Huck, Professor of Education, Ohio State University -- July 7-8

"The Reading Interests of Children and Youth"

Dr. Doris Young Kuhn, Consultant in Elementary Education, Lafayette, Indiana -- July 12

"Criteria for Evaluating Informational Books: Social Studies"

Miss Mildred Nickel, Director of School Libraries, Lansing, Michigan -- July 19

"Some Vital Considerations for Selecting Books for Use in the Elementary School Program"

Dr. William Jenkins, Associate Dean of Education, and Editor of Elementary English, University of Wisconsin -- July 21-2

"The Variants in the Genres and Techniques of Different Kinds of Literature"

Dr. Shirley Brehm, Assistant Professor of Education, Michigan State University -- July 25

"Criteria for Evaluating Informational Books: Science and Mathematics"

Dr. Jean LePere, Professor of Education, Michigan State University -- July 29

"Poetry -- a Form of Literature Children Can Appreciate" Daily: 9:00 a.m. - 10:00 a.m.

Title: The Teaching of Reading

Instructor: Dr. Patricia J. Cianciolo, Director of the Institute

Credits: 3 (Education 830C)

### Content of Course:

- a. Definition of the Nature of Reading.
- b. Identification of the relationship of reading to the sociocultural conditions.
- c. Identification of critical reading skills and some specific instructional materials and techniques that are likely to provide for the development of these skills.
- d. Identification of appreciative reading skills and some specific instructional materials and techniques that are likely to provide for the development of these skills.
- e. Identification of criteria that should guide the evaluation of reading.

Some lecture topics:

Dr. William Durr, Professor of Education, Michigan State University -- July 6

"Teaching Critical Reading with Informational Books"
Dr. Charlotte Huck, Professor of Education, Ohio State
University -- July 8

"What Evidence do we have that makes us Think Elementary School Children can be Discriminating Readers?"

Dr. John Mulhern, Associate Professor, Marquette University -- July 14-15

"Newspaper Accounts of Controversial Issues as an Aid in the Development of Critical Reading Multiple Sources in the Study of Economic Issues"

Miss Mildred Nickel, Director of School Libraries, Lansing, Michigan -- July 19

"The Role of the School Library in Fostering the Development of Facility in Discriminating Reading"

Dr. Jean LePere, Professor of Education, Michigan State University -- July 29

"Emotional Identification of the Reader with the Book Characters and Situations as a Factor Affecting Development of Facility in Appreciative Reading"

Daily: 10:30 a.m. - 11:30 a.m.

Title: Seminar in Elementary Education: Using Literature to Foster the Development of Critical and Appreciative Reading Skills and Attitudes

Instructor: Dr. Wanda Gray

Credits: 3 (Education 882)

Content of Course:

The daily subjects of this seminar grew out of the courses in Literature and reading instruction described above. Thus, the participants were able to study areas of special interest in greater depth. The participants studied relevant research, media, films, kinescopes and the like. When they desired, they used a small portion of this time to demonstrate or present the materials that they made and planned to use with elementary school children.

### Participant Evaluation Questionnaire

PLEASE DO NOT sign your name to this questionnaire. Be as objective as possible. The purpose of this questionnaire is to provide an evaluation of the Institute as a whole, not an evaluation of its specific parts. For example, in evaluating instruction do not consider individual instructors separately, but consider the total instructional staff in general.

- PART I -- Please circle the numeral which corresponds to your opinion regarding each continuum. You are encouraged to use the space following each item for any additional comments which you may wish to make.
- 1. (a) How well was the Institute organized and activities structured?

1 2 3 4 5
Excellently Adequately Poorly

- (b) Describe any aspects of the Institute which were inadequately structured.
- 2. How was emphasis distributed between substantive content and teaching skills?

l 2 3
Too much on substantive Satisfactory Too little on substantive content and too little on Distribution teaching skills

4 5
Too little on substantive content and too much on teaching skills

3. (a) How well was class time generally spent?

1 2 3 4 5
Excellently Satisfactory Poorly

- (b) Describe any activities for which class time was poorly spent.
- 4. How was time distributed between class time and free time?

1 2 3 Too little class time and too little free Distribution 4 5 and too much free time

5. How was time distributinstructors?	ted between guest	lecturers and regular
l 2 Too much time with guest lecturers and too little time with regular instructors	3 Satisfactory Distribution	Too little time with guest lecturers and too much time with regular instructors
6. As a group how well diseem to know the subject r		s and visiting lecturers
l 2 Broad and accurate knowledge	3 Adequate Knowledge	4 5 Several gaps in knowledge
7. How much opportunity	was there to ask q	questions in class?
l 2 Very much	3 Some	4 5 Very little
8. How easy was it to general instructors as a group?	t help from the in	nstructors and assistant
l 2 I felt welcome to seek extra help as often as needed	3 I felt hesitant to ask for extra help	
9. How would you describe	e the attitude of	fellow class members?
l 2 Attentive and active	3 Passive and Indifferent	4 5 Inattentive or even antagonistic
10. (a) Were the major of brochure which described	ojectives of the l the Institute?	Institute made clear in th
1 2 Absolutely clear and definite	3 Somewhat Clear	4 5 Not clear at all
(b) Describe any mis you had prior to your arr	conceptions regardival on campus.	ding the objectives, which
11. (a) How much agreeme Institute assignments and	nt was there betwee requirements?	een the objectives and the
1 2 Very close agreement	3 Some agreement	4 5 Very little agreemen

<b>(</b> b)	Describe	any speci	fic disagreement	of assignme	ents and objectives.
			o of the Institute vear position?	convenient	for you in
1		2	3	4	5
Too ear	ly		Just right		Too late
13. Wa	s the dura	tion of th	ne Institute satis	factory?	
1		2	3	4	5
Too man	y weeks		Just right		Too few weeks
14. Wa profita	<b>s the num</b> b ble <b>e</b> ducat	er of partional expe	ticipants conduciv erience?	re to a stir	nulating and
1		2	3	4	5
Too man	y particip	ant <b>s</b>	Justright	Too	few participants
15. (a	) How ade	quate was	the orientation t	to the comp	us?
1		2	3	4	5
Excelle	nt		Satisfactory		Poor
<b>(</b> b)	Describe	any aspe	cts of orientation	n which wer	e inadequate.
16. Ho	w adequate	were the	opportunities for	r recreatio	nal and social
activit	ies?			1.	r
3		2	3 Adequate	4	5 Less than adequate
	an adequat		_	اه هم دد د	ass for communica-
17. Ho	w adequate nong the pa	were the articipant	opportunities ou s?	tside of ci	ass for communica-
כ		2	3	4	5 Poo <b>r</b>
Excelle			Satisfactory		
18. Ho	ow would youttitute?	ou describ	e the classroom a	nd physical	facilities of
-		2	3	4	5 Poo <b>r</b>
Excelle			Satisfactory		4001
Commen	cs:				

19.	How would	you describe	the library	facilities	of the	Institute?
Excel	l lent	2	3 Satisfactor	4 ry		5 Poor
Comme	ents:					

20. How would you describe your housing and dining facilities while attending the Institute?

1 2 3 4 5
Excellent Satisfactory Poor

PART II -- PLEASE respond concisely to the following items.

1. Briefly evaluate the field trip activities in terms of their effectiveness, their relevance to the objectives of the Institute, and the number of trips.

2. The Institute participants were purposely chosen from a variety of professional positions and responsibilities and included classroom teachers, librarians, supervisors, and teacher-training personnel. Do you feel that this was desirable or undesirable? State reasons to support your answer.

3. What was the most significant experience which you have had during the Institute? Indicate more than one if you wish, but list them in order from greatest to least significance.
4. One of the objectives of the NDEA Institute for Advanced Study is to encourage progress and promote improvement of school instructional programs. What do you plan to do differently in your school this year as a result of your experience in the Institute?
5. What experiences which were not included in the Institute do you think should have been?
6. Discuss briefly what you consider to be the major strengths of the Institute.
7. Discuss briefly what you consider to be the major weaknesses of the Institute.

## APPENDIX B

Leader Behavior Description Questionnaire

Reactionnaire: Institute in Critical and

Appreciative Reading in Children's Literature

# Leader Behavior Description Questionnaire Form XII

Purpose of the Questionnaire

On the following pages is a list of items that may be used to describe your behavior as a leader. Each item describes a specific kind of behavior. Although some items may appear similar, they express difference that are important in the description of leadership. As you read each item, substitute "I" for "He." Mark the frequency with which you believe you engage in each kind of behavior.

Note: The term, "group," as employed in the following items, refers to a department, division, or other unit of organization that is supervised by the person being described. The term "members," refers to all the people in the unit of organization that is supervised by the person being described.

## DIRECTIONS:

a. READ each item carefully.					
b. THINK about how frequently the leader engages in the behavior desc	ribed	l by th	e item	•	
c. DECIDE whether he (A) always, (B) often, (C) occasionally, (D) s described by the item.					s <b>a</b> s
d. DRAW A CIRCLE around one of the five letters (A B C D E) followanswer you have selected.	owing	g the it	cm to	show	the
A — Always					
B - Often					
C — Occasionally					
D — Seldom					
E — Never					
e. MARK your answers as shown in the examples below.					
Example: He often acts as described	A	B	C	D	E
Example: He never acts as described	A	В	C	D	E
Example: He occasionally acts as described	A	В	0	D	E
	_				
	_				
1. He acts as the spokesman of the group	A	В	С	D	E
2. He waits patiently for the results of a decision	A	В	С	D	E
3. He makes pep talks to stimulate the group	A	В	С	D	E
4. He lets group members know what is expected of them	A	В	С	D	E
5. He allows the members complete freedom in their work	A	В	С	D	E
6. He is hesitant about taking initiative in the group	A	В	С	D	E
7. He is friendly and approachable	A	В	С	D	E
8. He encourages overtime work	A	В	С	D	E
9. He makes accurate decisions	A	В	С	D	E
10. He gets along well with the people above him	A	В	С	D	E
11. He publicizes the activities of the group	A	В	С	D	E

12. He becomes anxious when he cannot find out what is coming next..... A B C

D

E

A - Always

B - Often

C - Occasionally

D - Seldom

E = Never

13. His arguments are convincing	A	В	С	D	E
14. He encourages the use of uniform procedures	A	В	С	D	E
15. He permits the members to use their own judgment in solving problems.	A	В	C	D	E
16. He fails to take necessary action	A	В	С	D	E
17. He does little things to make it pleasant to be a member of the group	A	В	С	D	E
18. He stresses being ahead of competing groups	A	В	С	D	E
19. He keeps the group working together as a team	A	В	С	D	E
20. He keeps the group in good standing with higher authority	A	В	С	D	E
21. He speaks as the representative of the group	A	В	С	D	E
22. He accepts defeat in stride	A	В	С	D	E
23. He argues persuasively for his point of view	A	В	С	D	E
24. He tries out his ideas in the group	A	В	С	D	E
25. He encourages initiative in the group members	A	В	С	D	E
26. He lets other persons take away his leadership in the group	A	В	С	D	E
27. He puts suggestions made by the group into operation	A	В	C	D	E
28. He needles members for greater effort	A	В	С	D	E
29. He seems able to predict what is coming next	A	В	С	D	E
30. He is working hard for a promotion	A	В	С	D	E
31. He speaks for the group when visitors are present	A	В	С	D	E
32. He accepts delays without becoming upset	A	В	С	D	E
33. He is a very persuasive talker	A	В	С	D	E
34. He makes his attitudes clear to the group	A	В	С	D	E
35. He lets the members do their work the way they think best	A	В	С	D	E
36. He lets some members take advantage of him	A	В	С	D	E

A - Always

B - Often

C - Occasionally

D = Seldom

E = Never

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37. He treats all group members as his equals	A	В	С	D	E
38. He keeps the work moving at a rapid pace	A	В	С	D	E
39. He settles conflicts when they occur in the group	A	В	С	D	E
40. His superiors act favorably on most of his suggestions	A	В	С	D	E
41. He represents the group at outside meetings	A	В	С	D	E
42. He becomes anxious when waiting for new developments	A	B	C	D	E
43. He is very skillful in an argument	A	В	C	D	E
44. He decides what shall be done and how it shall be done	A	В	С	D	E
45. He assigns a task, then lets the members handle it	A	В	С	D	F.
46. He is the leader of the group in name only	A	В	С	D	E
47. He gives advance notice of changes	4	В	C	D	E
48. He pushes for increased production	1	В	c	D	E
49. Things usually turn out as he predicts		В	С	D	E
50. He enjoys the privileges of his position	I	3	С	D	E
51. He handles complex problems efficiently A	B	} (	C I	D 1	ŗ
52. He is able to tolerate postponement and uncertainty A	В	(	C 1	) I	
53. He is not a very convincing talker	В	C	D	E	
54. He assigns group members to particular tasks A	В	С	D	E	
55. He turns the members loose on a job, and lets them go to it	В	С	D	E	
56. He backs down when he ought to stand firm A	В	С	D	E	
57. He keeps to himself	В	С	D	E	
58. He asks the members to work harder A	В	С	D	E	
59. He is accurate in predicting the trend of events A	В	С	D	E	
60. He gets his superiors to act for the welfare of the group members A	В	С	D	E	

A — Always

B — Often

C - Occasionally

D - Seldom

E - Never

61. He gets swamped by details	A	В	С	D	E
62. He can wait just so long, then blows up	A	В	С	D	E
63. He speaks from a strong inner conviction	A	В	С	D	E
64. He makes sure that his part in the group is understood by the group members	A	В	С	D	E
65. He is reluctant to allow the members any freedom of action	A	В	c	D	E
66. He lets some members have authority that he should keep	A	В	С	D	E
67. He looks out for the personal welfare of group members	A	В	С	D	E
68. He permits the members to take it easy in their work	A	В	С	D	E
69. He sees to it that the work of the group is coordinated	A	В	С	D	E
70. His word carries weight with his superiors	A	В	С	D	E
71. He gets things all tangled up	A	В	C	D	E
72. He remains calm when uncertain about coming events	A	В	С	D	E
73. Hs is an inspiring talker	A	В	С	D	E
74. He schedules the work to be done	A	В	C	D	E
75. He allows the group a high degree of initiative	A	В	С	D	E
76. He takes full charge when emergencies arise	A	В	С	D	E
77. He is willing to make changes	A	В	C	D	E
78. He drives hard when there is a job to be done	Α	В	С	D	E
79. He helps group members settle their differences	A	В	С	D	E
80. He gets what he asks for from his superiors	A	В	С	D	E
81. He can reduce a madhouse to system and order	A	В	c	D	E
82. He is able to delay action until the proper time occurs	A	В	С	D	E
83. He persuades others that the ideas are to their advantage	A	В	С	D	E

A — Always

B - Often

C - Occasionally

D — Seldom

E - Never

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84. He maintains definite standards of performance	A	·	3 (		E
85. He trusts the members to exercise good judgment	A	F	3 (	ם כ	E
86. He overcomes attempts made to challenge his leadership	A	E	3 (	D	E
87. He refuses to explain his actions	A	B	3 C	D	E
88. He urges the group to beat its previous record	A	В	C	D	E
89. He anticipates problems and plans for them	A	В	С	D	E
90. He is working his way to the top	A	В	С	D	E
91. He gets confused when too many demands are made of him	A	В	С	D	E
92. He worries about the outcome of any new procedure	A	В	С	D	1:
93. He can inspire enthusiasm for a project	A	В	С	D	E
94. He asks that group members follow standard rules and regulations	A	В	С	D	E
95. He permits the group to set its own pace	A	В	С	D	E
96. He is easily recognized as the leader of the group	A	В	C	D	E
97. He acts without consulting the group	A	В	С	D	E
98. He keeps the group working up to capacity	4	В	С	D	E
99. He maintains a closely knit group	1	В	С	D	E
100. He maintains cordial relations with superiors A		В	С	D	E

You Po

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#### Reactionaire

# INSTITUTE IN CRITICAL AND APPRECIATIVE READING

# IN CHILDREN'S LITERATURE

You	ır Name		
rog	ition		
Sch	1001		
	(Give location of	your office if you are a	supervisor or consultant)
Num	ber of Teachers of Gr	ades 4-9 in Your School _	
		(Schools	if supervisor or consultant)
(IF	' you are a supervisor	, consultant or principal	skip to page 12)
		Part A	
emp	ted below are a numbe hasized in the Instit ponse for <u>each</u> of the	ute. Thinking of your own	es and procedures that were classes, check the <u>truest</u>
a.	How Often Used		
	When Use Began		
c.	Change in Practice S	ince Institute	
1.	Pupils are taught hor the daily newspaper.	w to analyze the major typ	es of news events reported in Change in Practice:
	How Often Used	When Use Began	Since Institute
	Daily	Before institute	Decreased significantly
	Once a week	SeptDec.	Decreased slightly
	Twice a month	Oct. Jan.	Not at all
	Once a month	Nov. Feb.	Increased slightly
	Never		Increased significantly
2.			language arts and literature. Change in Practice
	How Often Used	When Use Began	Since Institute
	Daily	Before institute	Decreased significantly
	Once a week	SeptDec.	Decreased slightly
	Twice a month	OctJan.	Not at all
	Once a month	NovFeb.	Increased slightly
	Never		Increased significantly

3.	Pupils are taught how to evaluate materials that appear to make use of standard propaganda devices such as "name calling" and "glittering generalities."				
			Change in Practice		
	How Often Used	When Use Began	Since Institute		
	Daily	Before institute	Decreased significantlyDecreased slightly		
	Once a week	SeptDec.	Not at all		
	Twice a month	OctJan.	Increased slightly		
	Once a month Never	NovFeb.	Increased significantly		
4.	Pupils are taught to exthey differ in the tre the paper) given to the	atment, amount of space	endent newspapers to see how and prominence (location in		
			Change in Practice		
	How Often Used	When Use Began	Since Institute		
	Daily Once a week	Before institute SeptDec.	Decreased significantlyDecreased slightly		
	Twice a month	OctJan.	Not at all		
	Once a month	Nov. Feb.	Increased slightly		
	Never		Increased significantly		
5.	paring and contrasting distinguishing fact from	ideas, identifying cause	ls (such as classifying, com- e and effect relationships, mation to prove or disprove a Change in Practice		
	How Often Used	When Use Began	Since Institute		
			•		
	Daily	Before institute	Decreased significantly		
	Once a week	SeptDec.	Decreased slightly		
	Twice a month	OctJan.	Not at all		
	Once a month	NovFeb.	Increased slightly		
	Never		Increased significantly		
6.	Pupils are taught how to	examine the theme, plot	, characters, and style of		
	a story.				
	•		Change in Practice		
	How Often Used	When Use Began	Since Institute		
	Daily	Before institute	Decreased significantly		
	Once a week	SeptDec.	Decreased slightly		
	Twice a month	OctJan.	Not at all		
	Once a month	NovFeb.	Increased slightly		
	Never		Increased significantly		

7.	. <u>Elementary English</u> is used in keeping abreast of new books for children.				
	How Often Used	When Use Began	Change in Practice Since Institute		
	DailyOnce a weekTwice a monthOnce a monthNever	Before instituteSeptDecOctJanNovFeb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly		
8.	Pupils are taught how tand/or cartoons.	co critically evaluate polit	cical and editorial comments		
	How Often Used	When Use Began	Change in Practice Since Institute		
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly		
9.	Fiction trade books are	e used in the teaching of so	ocial studies. Change in Practice		
	How Often Used	When Use Began	Since Institute		
	DailyOnce a weekTwice a monthOnce a monthNever	Before instituteSeptDecOctJanNovFeb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly		
10.	Pupils are taught to re	ead letters to the editor for	or a point of view.		
	How Often UsedDaily	When Use Began  Before institute	Change in Practice Since Institute  Decreased significantly		
	Once a week Twice a month Once a month Never	Sept. Dec. Oct. Jan. Nov. Feb.	Decreased slightly Not at all Increased slightly Increased significantly		
11.	Non-fiction trade books literature.	are used in the teaching o			
	How Often Used	When Use Began	Change in Practice Since Institute		
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly		

12.	Pupils are taught to direport of the same new	iscriminate a factual repor s event.	
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before instituteSeptDecOctJanNovFeb.	Decreased significantlyDecreased slightlyNot at allIncreased slightlyIncreased significantly
13.	Films related to literatinstruction.	ature and social studies ar	e used in classroom
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly
14.	Pupils are taught to re of certain news events	ead magazine articles to ge that appear in the daily n	t more detailed discussions ewspapers.
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly
15.	Non-fiction trade books	are used in the teaching	of social studies.
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly
16.	Pupils are taught how to possible biases.	o recognize an author's pu	
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly

17.	rupils are taught how stories, essays, plays	to write in several forms of and biographies).	
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before instituteSeptDecOctJanNovFeb.	Decreased significantlyDecreased slightlyNot at allIncreased slightlyIncreased significantly
18.	Check the following for	rms that are used.	
	Poetry Stories Essays Plays Biographies		
19.	Pupils are taught how about a given subject.	to recognize the competency	y of an author to write
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantlyDecreased slightlyNot at allIncreased slightlyIncreased significantly
20.	Pupils are taught how magazines with the sub	to integrate news stories in ject matter in textbooks.	
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantlyDecreased slightlyNot at allIncreased slightlyIncreased significantly
21.	Pupils are taught to r children's books, dram	ead critical reviews and co a, art, movies, and radio	omments (on items such as and television programs).
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a month Never	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly

22.	comparing and contrasti distinguishing fact from	• • •	se and effect relationships, ation to prove or disprove
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantlyDecreased slightlyNot at allIncreased slightlyIncreased significantly
23.	Teacher-prepared, infor the ability to make obj	mal tests are used to dete ective, critical appraisa	ermine pupils' growth in lof reading materials.
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly
24.	Pupils are encouraged t techniques of a favorit books written by the au	e author or illustrator (e	osophy, style, themes and/or e.g., read all the juvenile
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantlyDecreased slightlyNot at allIncreased slightlyIncreased significantly
25.	Pupils are taught to co the treatment of a sing	mpare the techniques used le topic.	
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly

27.

20.	written questionnaires	are used to discover chil	dren's reading interests.
			Change in Practice
	How Often Used	When Use Began	Since Institute
	Daily	Before institute	Decreased significantly
	Once a week	SeptDec.	Decreased slightly
	Twice a month	OctJan.	Not at all
	Once a month	Nov. Feb.	Increased slightly
	Never		Increased significantly
^-			
27.	Pupils are taught to ap	praise the types and cont	ent of advertisements appearing
	in print as compared wi	th those appearing on rad	10 and television.
			Change in Practice
	How Often Used	When Use Began	Since Institute
	Daily	Before institute	Decreased significantly
	Once a week	SeptDec.	Decreased slightly
	Twice a month	OctJan.	Not at all
	Once a month	NovFeb.	Increased slightly
	Never		Increased significantly
20	The state of the s	and to the teaching of	acience
28.	Fiction trade books are	used in the teaching of	Change in Practice
	How Often Used	When Use Began	Since Institute
	Now Often osed	mod voo Dogum	
	Daily	Before institute	Decreased significantly
	Once a week	SeptDec.	Decreased slightly
	Twice a month	OctJan.	Not at all
	Once a month	NovFeb.	Increased slightly
	Never		Increased significantly
29.	Tolondadan museum the	t will stimulate reading	are assigned for home or
47.	school viewing.	C Will Stimulate reading	
	school viewing.		Change in Practice
	How Often Used	When Use Began	Since Institute
	now often oseu		
	Daily	Before institute	Decreased significantly
	Once a week	Sept. Dec.	Decreased slightly
	Twice a month	OctJan.	Not at all
	Once a month	Nov. Feb.	Increased slightly
	Never		Increased significantly
••			of mathematics.
30.	Non-fiction trade books	are used in the teaching	OI machematics.
			Change in Practice
	Non Often Hand	When Use Began	Since Institute
	How Often Used	MICH ODC DOMAIN	
	Daily	Before institute	Decreased significantly
	Once a week	Sept. Dec.	Decreased slightly
	Twice a month	Oct. Jan.	Not at all
	Once a month	Nov. Feb.	Increased slightly
	Never		Increased significantly

32.

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31.	The private interview reading interests.	is used as a technique for	finding out about children's
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly
32.		stions and associated answer	
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly
33.	Pupils are taught how the "jump on the band	to recognize information the wagon" theme.	nat appears to make use of  Change in Practice
	How Often Used	When Use Began	Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly
34.	The Children's Catalog and needs of children.	is used in locating books	to meet the reading interests
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly
35.	Non-fiction trade book	s are used in the teaching	
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly

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36.	Pupils are taught how	to distinguish fact from op	cinion in general.
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly
37.	Top of the News is use	d in keeping abreast of new	books for children.
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly
38.	Pupils' written self-r	eports are used to discover	
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly
39.	Pupils are taught how	to recognize emotional reac	
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly
40.	The Bulletin of the Cebooks for children.	nter for Children's Books i	s used to keep abreast of
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantlyDecreased slightlyNot at allIncreased slightlyIncreased significantly

41.	Pupils are taught how	to find information to prov	ve or disprove a statement.
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before instituteSeptDecOctJanNovFeb.	Decreased significantlyDecreased slightlyNot at allIncreased slightlyIncreased significantly
42.	Library circulation to discover the children	allies on books of certain s s reading interests.	
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly
43.	Pupils' creative active	rities are tape recorded for	use in classroom instruction
	How Often Used	When Use Began	Change in Practice Since Institute
44.	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly
44,	ine Horn Book Magazine	18 deed in keeping ablease	c of new books for children.  Change in Practice
	How Often Used	When Use Began	Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly
45.	Pupils' oral self-repo	orts in class are used to di	scover their reading
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly

47.

46.	Tape and disk recording classroom instruction.	gs of television and radio	programs are used in
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly
47.	The <u>Booklist</u> of the Am of new books for child	erican Library Association ren.	
	How Often Used	When Use Began	Change in Practice Since Institute
	DailyOnce a weekTwice a monthOnce a monthNever	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly
48.	Pupils are taken on fi	eld trips.	
	How Often Used	When Use Began	Change in Practice Since Institute
	Once a week Twice a month Once a month Less often than once a month	Before institute Sept. Dec. Oct. Jan. Nov. Feb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly
49.	Check the following pl	aces to which pupils have b	oeen taken.
	Community librariesBook fairsPublishing firmsNewspaper plantsOthers (specify)		

Many schools have a special place for instructional materials. Sometimes it is called a "library," sometimes an "instructional materials center," sometimes a "learning center."

a. In your school, what is this room called?

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critical reading and literature.

b. Describe this room in terms of the equipment it contains.

c. Please check the statements which are true about your school library or learning center. Books for the library or learning center are selected by a single person 50. (such a person might be a librarian, principal, curriculum supervisor, etc.). Prior to the institute, books for the library or learning center were \_\_51. selected by a committee (such a committee might have been composed of teachers, administrators and curriculum specialists). \_\_52. Since the institute, books for the library or learning center are selected by a committee (such a committee might have been composed of teachers, administrators and curriculum specialists). As a result of my institute experience, I have helped to effect a number \_\_53。 of changes in the organization and operation of the school library or learning center. Since the institute, I have helped to establish a library or learning \_\_54. center in my school. \_\_\_\_55. Plans are under way to establish a school library or learning center. \_\_\_\_56. A full time professional librarian is employed in my school. Many of the books that were studied in the institute have been ordered \_\_\_57. by my school. \_\_\_58. Teaching of critical reading and literature is done in this school. The resources of the library are used extensively in the teaching of

#### Part B

In this section you are asked to give five responses for each practice or procedure you shared with other teachers (regardless of whether or not you are using the practice). In each blank, write the number of teachers described in the statement that follows the blank. If you did not share a particular practice, check "no" and go on to the next practice.

1.	Pupils are taught how to analyze the major types of news events reported in the daily newspaper.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.  The number of teachers I worked with once extensively.  The number of teachers I worked with more than once slightly.  The number of teachers I worked with more than once extensively.  The number of teachers who have adopted the practice.
2.	Fiction trade books are used in the teaching of language arts and literature
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.  The number of teachers I worked with once extensively.  The number of teachers I worked with more than once slightly.  The number of teachers I worked with more than once extensively.  The number of teachers who have adopted the practice.
3.	Pupils are taught to evaluate materials that appear to make use of standard propaganda devices such as "name calling" and "glittering generalities."
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.  The number of teachers I worked with once extensively.  The number of teachers I worked with more than once slightly.  The number of teachers I worked with more than once extensively.  The number of teachers who have adopted the practice.
4.	Pupils are taught to examine two or more independent newspapers to see how they differ in the treatment, amount of space and prominence (location in the paper) given to the same news event.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.  The number of teachers I worked with once extensively.  The number of teachers I worked with more than once slightly.  The number of teachers I worked with more than once extensively.  The number of teachers who have adopted the practice.

5.	Pupils are taught to use critical reading skills (such as classifying, comparing and contrasting ideas, identifying cause and effect relationships, distinguishing fact from opinion, finding information to prove or disprove a statement, etc.) in the social studies program.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once slightly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
6.	Pupils are taught how to examine the theme, plot, characters, and style of a story.
	- 500 <b>2</b> , •
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once slightly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
7.	Elementary English is used in keeping abreast of new books for children.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once slightly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
8.	Pupils are taught how to critically evaluate political and editorial comments and/or cartoons.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once silghtly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
9.	Fiction trade books are used in the teaching of social studies.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once singuity.
	The number of teachers I worked with more than once extensively
	The number of teachers who have adopted the practice.

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10.	Pupils are taught to read letters to the editor for a point of view.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once slightly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
11.	Non-fiction trade books are used in the teaching of language arts and
	literature.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once slightly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
12.	Pupils are taught to discriminate a factual report from an interpretive
	report of the same news event.
	•
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once slightly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
12	· · · · · · · · · · · · · · · · · · ·
13.	instruction.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once slightly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
14.	Pupils are taught to read magazine articles to get more detailed discussions
-75	of certain news events that appear in the daily newspapers.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once siightly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.

15.	Mon-liction trade books are used in the teaching of social studies.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once slightly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
	The number of teachers who have adopted the practice.
16.	Pupils are taught how to recognize an author's purpose, point of view and possible biases.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once slightly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
	The number of reachers who have adopted the branches
17.	Pupils are taught how to write in several forms (e.g., original poetry, stories, essays, plays, and biographies).
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once slightly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
	The number of teachers who have adopted the practical
18.	Check the following forms that are used.
	Poetry
	Stories
	Essays
	Plays
	Biographies
10	Pupils are taught how to recognize the competency of an author to write
19.	
	about a given subject.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once stightly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
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20.	magazines with the subject matter in textbooks.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.  The number of teachers I worked with once extensively.  The number of teachers I worked with more than once slightly.  The number of teachers I worked with more than once extensively.  The number of teachers who have adopted the practice.
21.	Pupils are taught to read critical reviews and comments (on items such as children's books, drama, art, movies, and radio and television programs).
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.  The number of teachers I worked with once extensively.  The number of teachers I worked with more than once slightly.  The number of teachers I worked with more than once extensively.  The number of teachers who have adopted the practice.
22.	Pupils are taught to use critical reading skills (such as classifying, comparing and contrasting ideas, identifying cause and effect relationships distinguishing fact from opinion, finding information to prove or disprove a statement, etc.) in their study of science and scientific problems.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.  The number of teachers I worked with once extensively.  The number of teachers I worked with more than once slightly.  The number of teachers I worked with more than once extensively.  The number of teachers who have adopted the practice.
23.	Teacher-prepared, informal tests are used to determine pupils' growth in the ability to make objective, critical appraisal of reading materials.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.  The number of teachers I worked with once extensively.  The number of teachers I worked with more than once slightly.  The number of teachers I worked with more than once extensively.  The number of teachers who have adopted the practice.

24.	Pupils are encouraged to study in depth the philosophy, style, themes and/ or techniques of a favorite author or illustrator (e.g., read all the juvenile books written by the author).					
	Did you share this with other teachers? Yes No					
	The number of teachers I worked with one time slightly.  The number of teachers I worked with once extensively.  The number of teachers I worked with more than once slightly.  The number of teachers I worked with more than once extensively.  The number of teachers who have adopted the practice.					
25.	Pupils are taught to compare the techniques used by different authors in the treatment of a single topic.					
	Did you share this with other teachers? Yes No					
	The number of teachers I worked with one time slightly.  The number of teachers I worked with once extensively.  The number of teachers I worked with more than once slightly.  The number of teachers I worked with more than once extensively.  The number of teachers who have adopted the practice.					
26.	Written questionnaires are used to discover children's reading interests.					
	Did you share this with other teachers? Yes No					
	The number of teachers I worked with one time slightly.  The number of teachers I worked with once extensively.  The number of teachers I worked with more than once slightly.  The number of teachers I worked with more than once extensively.  The number of teachers who have adopted the practice.					
27.	Pupils are taught to appraise the types and content of advertisements appearing in print as compared with those appearing on radio and television.					
	Did you share this with other teachers? Yes No					
	The number of teachers I worked with one time slightly.  The number of teachers I worked with once extensively.  The number of teachers I worked with more than once slightly.  The number of teachers I worked with more than once extensively.  The number of teachers who have adopted the practice.					
28.	Fiction trade books are used in the teaching of science.					
	Did you share this with other teachers? Yes No					
	The number of teachers I worked with one time slightly.  The number of teachers I worked with once extensively.  The number of teachers I worked with more than once slightly.  The number of teachers I worked with more than once extensively.  The number of teachers who have adopted the practice.					

29.	school viewing.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.  The number of teachers I worked with once extensively.  The number of teachers I worked with more than once slightly.  The number of teachers I worked with more than once extensively.  The number of teachers who have adopted the practice.
30.	Non-fiction trade books are used in the teaching of mathematics.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.  The number of teachers I worked with once extensively.  The number of teachers I worked with more than once slightly.  The number of teachers I worked with more than once extensively.  The number of teachers who have adopted the practice.
31.	The private interview is used as a technique for finding out about children's reading interests.
	Did you share this with other teachers? YesNo
	The number of teachers I worked with one time slightly.  The number of teachers I worked with once extensively.  The number of teachers I worked with more than once slightly.  The number of teachers I worked with more than once extensively.  The number of teachers who have adopted the practice.
32.	A file of practice questions and associated answers about current materials is kept in the classroom for pupil use and self-appraisal.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.  The number of teachers I worked with once extensively.  The number of teachers I worked with more than once slightly.  The number of teachers I worked with more than once extensively.  The number of teachers who have adopted the practice.
33.	Pupils are taught how to recognize information that appears to make use of the "jump on the band wagon" theme.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.  The number of teachers I worked with once extensively.  The number of teachers I worked with more than once slightly.  The number of teachers I worked with more than once extensively.  The number of teachers who have adopted the practice.

34.	interests and needs of children.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once slightly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
35.	Non-fiction trade books are used in the teaching of science.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once slightly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
36.	Pupils are taught how to distinguish fact from opinion in general.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once slightly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
37.	Top of the News is used in keeping abreast of new books for children.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once silghtly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
38.	Pupils' written self-reports are used to discover their reading interests.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of toochers I worked with once extensively.
	The makes of toochare I worked with more than once stables,
	The number of teachers I worked with more than once extendition,
	The number of teachers who have adopted the practice.

39.	Pupils are taught how to recognize emotional reactions and motives.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once slightly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
40.	The Bulletin of the Center for Children's Books is used to keep abreast of new books for children.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once slightly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
41.	Pupils are taught how to find information to prove or disprove a statement.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once slightly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
42.	Library circulation tallies on books of certain subject matter are used to
•	discover the children's reading interests.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The market of tocchore I worked with more than once stigned
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
43.	Pupils' creative activities are tape recorded for use in classroom
	instruction.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	mbbon of toochore I worked with once extensive ye
	min to a facebone I worked with more than once allowers
	The number of teachers I worked with more than once extensively
	The number of teachers who have adopted the practice.

44.

44.	The Horn Book Magazine is used in keeping abreast of new books for children.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once slightly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
	and named of conclicts who have adopted the practical
45.	Pupils' oral self-reports in class are used to discover their reading interests.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once slightly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
	The number of teachers who have adopted the process
46.	Tape and disk recordings of television and radio programs are used in classroom instruction.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once slightly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
	THE HOMBEL OF CERCHELS AND HOLD CONTROL OF LAND
47.	The Booklist of the American Library Association is used in keeping abreast of new books for children.
	Did you share this with other teachers? Yes No
	and the same than all obting
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once slightly.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.
48.	Pupils are taken on field trips.
	Did you share this with other teachers? Yes No
	The number of teachers I worked with one time slightly.
	The number of teachers I worked with once extensively.
	The number of teachers I worked with more than once size.
	The number of teachers I worked with more than once extensively.
	The number of teachers who have adopted the practice.

49.	· Check the following places to which pupils have been taken						
	Community libraries Book fairs Publishing firms Newspaper plants Others (specify)						
Circ the	cle the letters of the <u>three</u> most expressive of the three most expressive of three most expressive of the three most expressive of	ffect i in	tive activities you used in sharing the Institute with other teachers.				
a.	Informal discussion	8•	Demonstration lessons				
b.	Special committee meeting	h.	An exhibit				
c.	Small group meeting (less than 10 persons)	i.	Distribution of duplicated or printed materials on critical reading skills				
d.	Faculty meeting	j.	Preparation of a handbook on				
e.	In-service education		critical reading skills				
f.	Assistance in the preparation of a lesson	k.	Other activities (specify)				

Please use the space below to state any particular comments you wish to make on the questionnaire, Institute, or problems you encountered in implementing Institute concepts in your school(s).

## APPENDIX C

Interview Guide

(The short form of the Reactionaire is included in this instrument.)

## Interview Guide

# INSTITUTE IN CRITICAL AND APPRECIATIVE READING IN CHILDREN'S LITERATURE

Na	me
Po	sition
Sc	hool or School System
Na	me of Principal or Superior
1.	Did you discuss the Institute with your principal or superior?
	YesNo
2.	Give an approximate date of your discussion. (If the answer is "no," the participant will be asked: "Why did you not discuss the Institute with her/him?")
3.	Did she/he assist you in making plans for sharing Institute recommended practices and procedures with othe teachers?
	YesNo
4.	What were these plans? (If the answer is "no," the participant will be asked to explain.)
5.	Did you receive help from other persons in implementing or sharing the practices and procedures?
	YesNo
6.	What was the nature of this help? (This question will be asked if the answer to the question above is "yes.")
7.	(a) In what month did you begin using the practices and

			•			
	Sep	Oct	Nov	Dec	Jan	Feb
	(b) In what and proceed	at month didures with	id you beg other tea	in sharing chers?	the practi	ices
	Sep	Oct	Nov	Dec	Jan	Feb
8.	How many o	discussions ices and p	s did you i	have with tin the follow	teachers at lowing mont	oout ths?
	Sep	Oct	Nov.	Dec	Jan	Feb
9.		ave any proenting and and procee	or sharing	h teachers g Institute	or superio	ors ded
	Yes	No				
10.	With whom culties?	or from w	hat source	did you e	ncounter di	iffi-
	a. Teacher b. Adminis c. Others					
11.	Explain th	ne nature a	and circum	stances of	the proble	ems?
12.	As you loo do you eva tional imp	aluate its	the Insti	tute one yoness in te	ear later, rms of inst	how truc-
13.	What major would have	r things and done if	re you doi you had no	ng differe t attended	ntly than the Instit	you tute?
14.	If little implement in the Ins		יו דיו ביינת אא	done in yoes and prothink this	LEGILLE LO	to commended

procedures in your classroom?

Thinking of your own classes, give the <u>truest</u> response for each of the following practices and procedures.

15.	as classifying, of tifying cause and fact from opinion disprove a statem program.	comp <b>ari</b> ng leffect in finding ment, etc.	and contra relationshi g informati ,) in the s	ocial studies Change in Practice
	How Often Used	when us	se Began	Since Institute
	DailyOnce a weekTwice amonthOnce amonth _Never	Before Sept. Oct. Nov.	instituteDecJanFeb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly
16.	Pupils are taught and editorial con	how to o	critically d/or cartoo	evaluate political ns.
	Daily Once a week Twice a month Once a month Never	Before Sept. Oct. Nov.	instituteDecJanFeb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly
17.	Non-fiction trade language arts and	books ar l liter <b>a</b> ti	re used in ure.	the teaching of
	Daily Once a week Twice a month Once a month Never	Before Sept. Oct. Nov.	instituteDecJanFeb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly

18.	Pupils are taught to read magazine articles to get more detailed discussions of certain news events that appear in the daily newspapers.
	Daily Before institute Decreased Once a week Sept. Dec. significantly Twice a Oct. Jan. Decreased month Nov. Feb. slightly Once a Not at all month Increased Never Significantly
19.	Pupils are taught how to write in several forms (e.g., original poetry, stories, essays, plays, and biographies).
	Daily Before institute Decreased Once a week Sept. Dec. significantly Twice a Oct. Jan. Decreased month Nov. Feb. slightly Not at all Increased slightly Increased significantly
20.	Pupils are taught how to integrate news stories from newspapers and/or magazines with the subject matter in textbooks.
	Daily Before institute Decreased Sept. Dec. Twice a Oct. Jan. Decreased Decreased Significantly Decreased Slightly Not at all Increased Slightly Increased Significantly Increased Significantly Significantly Never Significantly

•

<b>〈</b>	21.	Teacher-prepare pupils' growth critical apprais	in the abil	ity to mak	e used to determine e objective, als.
		DailyOnce a weekTwice amonthOnce amonthNever	Before Sept. Oct. Nov.	instituteDecJanFet.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly
	22.	Written question reading interest	nnaires are ts.	used to d	iscover children's
		Daily Conce a week Twice a month Once a month Never	Before Sept. Oct. iov.	instituteDecJanFeb.	Decreased significantly Decreased slightly Not at all Increased slightly Increased significantly
	23.	Television prograssigned for hor	rams that w me or schoo	vill stimul l viewing.	ate reading are
		Daily Once a week Twice a month Once a month Never	Before Sept. Oct. Nov.	instituteDecJanFeb.	Decreased significantlyDecreased slightly Not at allIncreased slightly Increased significantly

24.	A file of pract about current m pupil use and s	aterials is	s kept in t	
	Daily Once a week Twice a month Once a month Never	Before Sept. Oct. Nov.	instituteDecJanFeb.	DecreasedsignificantlyDecreasedslightlyNot at allIncreasedslightlyIncreasedsignificantly
25.	Non-fiction tracscience.	de books ar	re used in	the teaching of
	Daily Once a week Twice a month Once a month Never	Before Sept. Oct. Nov.	instituteDecJanFeb.	DecreasedsignificantlyDecreasedslightlyNot at allIncreasedslightlyIncreasedsignificantly
26.	Pupils' written reading interes		rts a <b>re</b> use	d to discover their
	Daily Once a week Twice a month Once a month Never	Before Sept. Oct. Nov.	instituteDecJanFeb.	DecreasedsignificantlyDecreasedslightlyNot at allIncreasedslightlyIncreasedsignificantly
27.	. Pupils are taug disprove a stat		find inform	ation to prove or
	DailyOnce a weekTwice amonthOnce amonthNever	Before Sept. Oct. Nov.	instituteDecJanFeb.	Decreased     significantlyDecreased     slightlyNot at allIncreased     slightlyIncreased     significantly

28.	The Horn Book Magazine is used in keeping abreast of new books for children.
	Daily Before institute Decreased Sept. Dec. significantly Decreased Morth Nov. Feb. Slightly Not at all Increased month Never Significantly Increased significantly Increased significantly
	The Booklist of the American Library Association is used in keeping abreast of new books for children.
	Daily Before institute Decreased Once a week Sept. Dec. significantly Twice a Oct. Jan. Decreased month Nov. Feb. Slightly Increased significantly Increased significantly
	Regardless of whether or not you are using a practice, give the number of teachers with whom you shared each of the practices and procedures described below.
30.	Pupils are taught to use critical reading skills (such as classifying, comparing and contrasting ideas, identifying cause and effect relationships, distinguishing fact from opinion, finding information to prove or disprove a statement, etc.) in the social studies program.
	Did you share this with other teachers? YesNo
	The number of teachers you worked with one time slightlyThe number of teachers you worked with once extensively.
	The number of teachers you worked with more than once slightly.
	The number of teachers you worked with more than once extensively.
	The number of teachers who have adopted the practice.

31.	Pupils are taught how to critically evaluate political and editorial comments and/or cartoons.
	Did you share this with other teachers? Yes No
	The number of teachers you worked with one time slightly.
	The number of teachers you worked with once extensively.
	The number of teachers you worked with more than once slightly.
	The number of teachers you worked with more than once extensively.
	The number of teacher who have adopted the practice.
32.	Non-fiction trade books are used in the teaching of language arts and literature.
	Did you share this with other teachers? Yes. No
	The number of teacher you worked with one time slightly.
	The number of teachers you worked with once extensively.
	The number of teachers you worked with more than once slightly.
	The number of teachers you worked with more than once extensively.
	The number of teachers who have adopted the practice
33.	Pupils are taught to read magazine articles to get more detailed discussions of certain news events that appear in the daily newspapers.
	Did you share this with other teachers? Yes_ No_
	The number of teachers you worked with one time slightly.
	The number of teachers you worked with once extensively.
	The number of teachers you worked with more than once slightly.
	The number of teachers you worked with more than once extensively.  The number of teachers who have adopted the practice
34	Pupils are taught how to write in several forms (e.g., original poetry, stories, essays, plays, and biographies).
	Did you share this with other teachers? Yes_ No

	The number of teachers you worked with one time slightly.
	The number of teachers you worked with once exten-
	sively.
	The number of teachers you worked with more than once slightly.
	The number of teachers you worked with more than
	once extensively.
	The number of teachers who have adopted the practice
35.	Pupils are taught how to integrate news stories from
	newspapers and/or magazines with the subject matter
	in textbooks.
	Did you share this with other teachers? Yes No
	The number of teachers you worked with one time slightly.
	The number of teachers you worked with once exten-
	sively.
	The number of teachers you worked with more than
	once slightly.
	The number of teachers you worked with more than
	once extensively.
	The number of teachers who have adopted the practice.
36.	Teacher-prepared, informal tests are used to determine
•	pupils' growth in the ability to make objective,
	critical appraisal of reading materials.
	Did you share this with other teachers? Yes No
	The number of teachers you worked with one time
	slightly.
	The number of teachers you worked with once exten-
	sively.
	The number of teachers you worked with more than
	once slightly.
	The number of teachers you worked with more than
	once extensively.  The number of teachers who have adopted the practice.
	The number of teachers who have adopted the practice.
37.	Written questionnaires are used to discover children's
<i>)</i> ( •	reading interests.
	Did you share this with other teachers? Yes No
	The number of teachers you worked with one time
	slightly.
	The number of teachers you worked with once exten-
	sively.

	The number of teachers	you	worked with more than
	once slightly. The number of teachers	you	worked with more than
	once extensively.		
	The number of teachers	wno	have adopted the practice.
38.	Television programs that assigned for home viewing		stimulate reading are
	Did you share this with of	ther	teachers? Yes No
	The number of teachers slightly.	you	worked with one time
		you	worked with once exten-
	The number of teachers once slightly.	you	worked with more than
	The number of teachers once extensively.	you	worked with more than
		who	have adopted the practice.
39.	A file of practice questic about current materials is pupil use and self-apprais	s kej	
	Did you share this with of	ther	teachers? Yes_ No
	The number of teachers slightly.	you	worked with one time
		you	worked with once exten-
	The number of teachers once slightly.	you	worked with more than
	The number of teachers once extensively.	you	worked with more than
		who	have adopted the practice.
40.	Non-fiction trade books as science.	re us	sed in the teaching of
	Did you share this with ot	ther	teachers? Yes No
	The number of teachers slightly.	you	worked with one time
		you	worked with once exten-
	The number of teachers once slightly.	you	worked with more than
	The number of teachers	you	worked with more than
	once extensively.  The number of teachers	who	have adopted the practice.

41.	Pupils' written self-reports are used to discover their reading interests.
	Did you share this with other teachers? Yes_ No_
	The number of teachers you worked with one time slightly.
	The number of teachers you worked with once extensively.
	The number of teachers you worked with more than once slightly.
	The number of teachers you worked with more than
	once extensively.  The number of teachers who have adopted the practice.
42.	Pupils are taught how to find information to prove or disprove a statement.
	Did you share this with other teachers? Yes No
	The number of teachers you worked with one time slightly.
	The number of teachers you worked with once extensively.
	The number of teachers you worked with more than once slightly.
	The number of teachers you worked with more than once extensively.
	The number of teachers who have adopted the practice.
43.	The Horn Book Magazine is used in keeping abreast of new books for children.
	Did you share this with other teachers? Yes No
	The number of teachers you worked with one time slightly.
	The number of teachers you worked with once extensively.
	The number of teachers you worked with more than once slightly.
	The number of teachers you worked with more than once extensively.
	The number of teachers who have adopted the practice.
44.	The <u>Booklist</u> of the American Library Association is used in keeping abreast of new books for children.
	Did you share this with other teachers? Yes No

	The number of teachers	you	worked with one time
	slightly. The number of teachers	you	worked with once exten-
	sively. The number of teachers once slightly.	you	worked with more than
	The number of teachers proce extensively.	you	worked with more than
		who	have adopted the practice.
	Indicate the three most used in sharing the pracemphasized in the Institute	ctic	ces and procedures
a.	Informal discussion	g.	Demonstration lessons
b.	Special committee meet-ing		
c.	Small group meeting (less than 10 persons)	i.	Distribution of duplicated or printed materials on critical reading skills
d.	Faculty meeting	j.	Preparation of a handbook on critical reading skills
e.	In-service education		
f.	Assistance in the preparation of a lesson	k.	Other activities (Specify)

## APPENDIX D

Cover Letter
Follow-up Letter

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COLLEGE OF EDUCATION - BRICKSON HALL

March 27, 1967

#### Dear

Several months have passed since the Institute in Critical and Appreciative Reading, and by this time you have had an opportunity to test many of the institute concepts directly in your own classroom or indirectly in the classrooms of other teachers. The purpose of this reactionaire is to obtain information from you concerning the extent to which selected institute concepts have been implemented in your school(s).

The first part of the scale is directed toward classroom teachers, asking them about the practices and procedures they are using in their classrooms as a result of their institute experiences. If you are not teaching children directly (supervisor, consultant or non-teaching principal), you may skip this portion of the scale and begin with the section that concerns the school library or learning center on page 12. All participants are asked to respond to Part B of the scale.

Please do not be dismayed by the size of the reactionaire. Except for about two pages, there are no more than five items on each page. The total time required to respond to the scale will not exceed an hour. Please be assured of the fact that only "group data" will be used in the study, therefore, no reference will be made to individual participants.

Your cooperation in this study will enable the faculty in the Department of Elementary Education to make institute experiences more meaningful for participants in the future. A stamped, self-addressed envelope is enclosed. Please return the reactionaire by April 10.

Thanks very much.

Sincerely yours,

Bernyce S. Edmonds

COLLEGE OF EDUCATION . ERICKSON HALL

June 1, 1967

#### Dear

On March 27, I sent you a copy of the Reactionaire dealing with last summer's Institute in Critical and Appreciative Reading. Since your completed Reactionaire has not arrived yet, I am assuming that it was somehow misdirected in the mail. Perhaps you inadvertently misplaced it, since we all receive such a quantity of mail these days.

I am sending you another copy because it is <u>very important</u> to the follow-up study that we hear from everyone who attended the <u>Institute</u>. Please complete the Reactionaire and return it to me in the enclosed envelope by June 12.

Thank you very much for your help.

Sincerely.

Bernyce S. Edmonds

### APPENDIX E

- Table Al--Summary of participants' scores and ranks on two measures of diffusion activities
- Table A2--Summary of participants' scores and ranks in leader behavior, diffusion responsibility, and Institute attendance rationale
- Table A3--Summary of scores and ranks for eighteen teacher participants in self-adoption of Institute concepts

Table Al--Summary of participants' scores and ranks on two measures of diffusion activities

Participant	Diffusion	Rank	Adoption	Rank
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 33 34	38 39 17 18 42 20 38 31 54 42 11 12 15 70 28 15 29 19 19 19 19 19 19 19 19 19 19 19 19 19	30.5 32.5 9.5 11.5 33.1 24.15 27.30.5 26.7 34.17.5 19.5 20.5 20.5 21.5 22.5 23.7 13.2 24.15 25.5 26.5 27.5 28.3 29.5	24 13 15 10 00 28 18 16 11 24 14 21 00 01 19 19 19 19 19 19 19 19 19 19 19 19 19	30 19.5 23 12.5 33.5.5 5.5 31.5 32.4 14.5 5.5 5.5 5.5 12.7 28.5 5.5 5.5 5.5 12.7 28.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16

Table A2--Summary of participants' scores and ranks in leader behavior, diffusion responsibility, and Institute attendance rationale

Partici- pant	LBDų	Rank	SADR	Rank	IAR	Rank
1 23 45 67 89 10 11 12 13 14 15 16 17 18 19 20 12 22 22 22 22 22 22 22 22 22 22 23 24 26 27 28 29 30 30 30 30 30 30 30 30 30 30 30 30 30	2574412330804533235810844777241281334967	34.5 14.5 22094.5 1821081704.5 11.8 21081704.5 11.8 21081704.5 11.8 31.5 31.5 31.5 32.4 5	7223467752568508526350525837374365	27 38 11.5 27 27 16.5 16	4561341664860466656363362844516253	13.5 18.5

Table A3--Summary of scores and ranks for eighteen teacher participants in self-adoption of Institute concepts

Participant	Self-Adoption of Concepts	Rank
2 3	37 31	16.5 7
	40	18
4 5 7 9	22 13	2 1 9
9	32	9
10	33	11.5
18 19	34 32 28	13.5
20	28	3.5
21	33 37 29 28	11.5
22 24	29	5
25	28	3.5
28 29	35 32	15 9
32 32	35 32 30	6
34	34	13.5

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