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A SURVEY OF CURRICULAR INNOVATIONS IN  
THE ELEMENTARY SCHOOLS OF FIFTEEN  
NORTHWEST MONTANA COUNTIES

By

Marilyn O. Lind

B.S., University of Montana, 1958

Presented in partial fulfillment of the requirements for the degree of  
Master of Arts

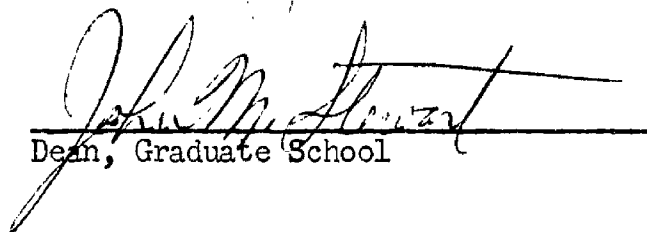
UNIVERSITY OF MONTANA

1968

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## CHAPTER I

### THE PROBLEM AND DEFINITION OF TERMS USED

Across the nation, schools are preparing--or are attempting to prepare--to make sweeping improvements. The seeds of dissatisfaction with present efforts are being sown on the basis of a strong conviction that something better must be created for the future. Inventive educators, joined by visionary social and behavioral scientists, are accepting the challenge. The great problem is to replace the obsolete programs, procedures, and buildings currently in use with a dramatically new concept in education: If schools are to be significantly better, they must be significantly different.<sup>1</sup>

In this era of rapid change in our society, responsible educators from coast to coast are reassessing the nation's schools. The functions of the school, the goals of education and the means for attaining these goals are the objects of renewed inquiry and heated discussion. A consensus is evident upon only one point; our schools must change. Change for the sake of change is meaningless and is not implied; change that results in the improvement of schools should be the primary concern.

#### I. THE PURPOSE OF THE STUDY

The purpose of the study was to determine what curriculum changes have occurred in Montana schools within the past six years. The purpose of the study was stated as follows:

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<sup>1</sup> Don E. Glines, "Planning and Effecting Needed Changes in Individual Schools," Planning and Effecting Needed Changes in Education, ed. by Edgar L. Morphet and Charles O. Ryan (Denver: Publishers Press, Inc., 1967), p. 163.

The Curriculum and Educational Development Committee of the Montana Education Association, recognizing there are changes taking place in curriculum, is seeking to find curriculum innovations in Montana schools that show some departure from the traditional program.<sup>2</sup>

The committee agreed that the study should be concerned with the following: (1) identification of curricular innovations, (2) the principal's judgment of the most effective curricular innovations, (3) methods of planning, implementing and evaluating the innovations, (4) innovations that have been tried and abandoned, and (5) ideas for innovations that would improve the working of the schools.

It was assumed that the study would provide an indication of the extent and location of these curricular innovations within the state. After these innovations had been identified, further information pertaining to effective innovations could be obtained and placed in a depository in the Montana Education Association office to be available to other schools.

## II. SIGNIFICANCE OF THE STUDY

In this state, no study of this precise nature has previously been made. An assessment of change in Montana's public elementary schools could be of value to the educators of the state, and information concerning effective changes should be made available to interested schools. If a lack of change were to be found, awareness of this fact might inspire educators to study the educational programs at both the state and local level and perhaps select and try out more innovations.

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<sup>2</sup> Curriculum and Educational Development Committee, James Wood, chairman, Minutes of December 9, 1967 meeting, Helena, Montana. See Appendix: C.



### III. DELIMITATIONS

The study was limited to the public elementary (grades 1-6) schools having an enrollment of more than seventy pupils in the fifteen counties of northwestern Montana. The counties included were: (1) Flathead, (2) Glacier Park, (3) Granite, (4) Lake, (5) Lewis and Clark, (6) Liberty, (7) Lincoln, (8) Mineral, (9) Missoula, (10) Pondera, (11) Powell, (12) Ravalli, (13) Sanders, (14) Teton, and (15) Toole.

### IV. LIMITATIONS OF THE STUDY

Information was obtained for this study from questionnaires sent to the building principals of each school included in the survey. The degree of accuracy with which the respondents answered the questionnaire is, of course, not ascertainable. Furthermore, the terminology used in the questionnaire might not convey to the respondents precisely the meaning the author intended.

The percentage of schools responding to the survey might not be large enough to provide an adequate representation of the schools in the area, though the researcher planned to make every effort to insure an adequate number of replies.

### V. DEFINITION OF TERMS

The nature of the topic, curricular innovations, necessitates defining many of the terms used. Some terms used to describe changes and innovations have recently been added to educational literature. Other terms may be familiar but their meanings have not been universally agreed

Innovation. For the purpose of this study, the definition used in the questionnaire will be used; i.e., a new course, new approach to a course, or marked changes in course content.<sup>3</sup>

Individualized approach. The individualized instructional approach to the teaching of reading has certain prime characteristics: (1) self-selection of materials by pupils for their own instruction, (2) individual conferences between each pupil and teacher, and (3) groups organized for other than reasons of ability or proficiency in reading.<sup>4</sup>

Language experience. This approach combines reading, speaking, listening, and writing in the instructional program. The plan for reading instruction is based upon the oral and written expressions of the children. Since this approach begins with the children's own stories about their own interests, written at first by the teacher from the child's dictation and later by the child himself, the language patterns that children use form the material of their first school experiences with reading.<sup>5</sup>

i/t/a. Developed by Sir James Pitman, i/t/a (initial teaching alphabet) is an augmented alphabet of forty-four symbols, each of which represents only one sound. The intent of this alphabet is to reduce the confusion which occurs when one letter is used to represent a variety of

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<sup>3</sup> See Appendix A.

<sup>4</sup> Jeanette Veatch, Individualizing Your Reading Program (New York: G.P. Putnam's Sons, 1959), p. ix.

<sup>5</sup> Ruth Strickland, "Innovations in the Language Arts: Language Experience," National Elementary Principal, 43:58, September, 1963.

sounds. It is not asserted to be a method of teaching reading, but rather a medium through which reading may be taught by any method a teacher chooses.<sup>6</sup>

Linguistic approach. A linguistic system of teaching reading separates the problem of the study of word form from the study of word meaning; the process of learning to read is a process of correlating a sound image with its corresponding visual image or its spelling. New words are presented according to their form; regular forms are presented first, irregular forms only later. Each letter used represents one sound and only one until the child has mastered it.<sup>7</sup>

Words in color. Words in color is an instructional program which utilizes color as a reading aid. Each of the forty-seven sounds of the English language is printed in a distinctive color. A sound is always represented by one color, regardless of its spelling. Thus, color is used to make English phonetic without changing traditional spellings.<sup>8</sup>

#### Phonovisual.

The phonovisual method is based on the use of pictorial charts arranged on a scientific phonetic foundation, together with a definite plan for training in auditory and visual discrimination. There are 26 sounds on the Consonant Chart and 17 sounds on the Vowel Chart. . . . This method is not intended to be used instead of sight reading, but as parallel teaching.<sup>9</sup>

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<sup>6</sup> Pose Lamb, Linguistics in Proper Perspective (Columbus: Charles E. Merrill Publishing Co., 1967), p. 36.

<sup>7</sup> Ibid., pp. 29-30.

<sup>8</sup> Xerox Education Division, "Words in Color," (New York: Xerox Education Division, pamphlet, n.d.).

<sup>9</sup> Lucille D. Schoolfield and Josephine B. Timberlake, The Phonovisual Method (Washington: Phonovisual Products, Inc., 1960), pp. 5-6.

Integrated language arts program. The language arts (speaking, reading, writing, and spelling) are not taught as separate subjects, but are developed in a meaningful, functional way. Language skills are taught as a need for teaching the skill becomes apparent to the teacher and the child.<sup>10</sup>

Structural grammar. Structural grammar is one of the grammars developed by the linguistic scientists based upon an analytical study of the structure of the English language.<sup>11</sup>

Cursive writing. Cursive writing is characterized by running or flowing lines, with strokes joined within the word and angles rounded.<sup>12</sup>

Creativity. Creativity is a mental process that produces new ideas, insight, or original work. Creativity is evident if the student has accomplished something new to himself; if he has developed insight that he did not have before; if he has related things that were previously unrelated in his experience. These may be objects, ideas, or actions which others already understand or tasks at which others are already proficient.<sup>13</sup>

Special interest approach. This method utilizes students' immediate needs and interests as a motivational device for learning.<sup>14</sup>

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<sup>10</sup> George H. Millis, "A Functional Language Arts Program," Montana Education, 41:13-14, November, 1964.

<sup>11</sup> Lamb, op. cit., pp. 119-120.

<sup>12</sup> Carter V. Good, Dictionary of Education (New York: McGraw-Hill Book Co., 1959), p. 610.

<sup>13</sup> Robert C. Wilson, "Creativity," Education for the Gifted. Fifty-Seventh Yearbook of the National Society for the Study of Education, Part II, Nelson B. Henry, (ed.), (Chicago: University of Chicago Press, 1958), pp. 10-110.

Inks, "A Special Interest Approach," The Instructor, 56.

Programmed materials. Programmed materials are instructional materials composed of an ordered sequence of items, questions, or statements to which a student responds in some specified way. His responses are reinforced by immediate knowledge of the results. The set of specified behaviors through which he proceeds are designed to make it more probable that he will behave in a certain way in the future.<sup>15</sup>

Team teaching, cooperative teaching. Two or more teachers share in the planning, preparation, execution, and evaluation of teaching functions, utilizing each teacher's special strengths and talents. Each participant performs the role for which he is best suited.<sup>16</sup>

Independent study. This method of study allows self-selection of activity, individual instruction and programs or materials, and self-pacing.<sup>17</sup>

Platoon. The platoon is a system of organization within a school in which two generally equivalent groups of pupils alternate in studying the tool subjects in home rooms and in engaging in activities in special rooms and on the playgrounds.<sup>18</sup>

Dual progress. The dual progress method of instruction divides subject matter into two groups: cultural imperatives (language arts,

<sup>15</sup> Wilbur Schram, Four Case Studies of Programmed Instruction (New York: Fund for the Advancement of Education, 1966), p. 98.

<sup>16</sup> Harry A. Becker, "Planning and Preparation in Cooperative Teaching, Innovations for Time to Teach (Washington: National Education Association, 1966), p. 46.

<sup>17</sup> Gerald T. Gleason (ed.), The Theory and Nature of Independent Learning (Scranton: International Textbook Co., 1967), p. 2.

<sup>18</sup> Good, op. cit., p. 401.

social studies, and physical education), and cultural electives (mathematics, science, art, and music). The cultural imperatives are taught by the teacher in graded units and each student is expected to achieve up to his ability. The cultural electives are taught on a non-graded basis by specialists in each field; students may progress as fast as interest and ability allows.<sup>19</sup>

Non-graded. A non-graded plan is a vertical plan of school organization which implements the theory of continuous pupil progress. Grade labels are removed, and individual children work at their own rates of speed. The curriculum is organized in sequential work units which are units of achievement, not units of time. Promotion is based on individual progress, rather than time spent in a grade. Movement between classes and intra-class grouping is flexible.<sup>20</sup>

Multi-age multi-grade. This method of grouping deliberately includes several age or grade levels.<sup>21</sup>

Ability grouping by grades. Ability grouping is a method of dividing students into classes within a grade according to their ability to attain. Criteria for placement in classes include past achievement in school, general ability as measured by an intelligence test or readiness test.<sup>22</sup>

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<sup>19</sup> George D. Stoddard, The Dual Progress Plan (New York: Harper and Brothers, 1961), pp. 5-9.

<sup>20</sup> John I. Goodlad and Robert H. Anderson, The Non-graded Elementary School (New York: Harcourt, Brace, and World, Inc., 1963), pp. 219-221.

<sup>21</sup> Ibid., p. 68.

<sup>22</sup> John Goodlad, "Ability Grouping," Encyclopedia of Educational Research, Third Edition (New York: Macmillan Co., 1960), p. 223.

Staggered sessions. In this method of scheduling, some students begin classes earlier in the day and are dismissed earlier; others begin later and are dismissed later.<sup>23</sup>

Flexible scheduling. Flexible scheduling allows for classes of dissimilar size within and between courses, and provides for instructional groups which meet at varying frequencies and for varying lengths of time.<sup>24</sup>

Electronically equipped study carrells. Electronically equipped study carrells are private or semi-private study facilities that contain electrical equipment to permit the student to utilize pre-recorded lessons, programs, and television films.<sup>25</sup>

Educational television or closed circuit television. Educational television is received from outside the school, but is broadcast within the school for instructional purposes. Closed circuit television may be produced within the school and is broadcast within the school.<sup>26</sup>

## VI. ORGANIZATION OF THE STUDY

The remainder of the study is organized into four sections. The first section (Chapter II) contains a review of related literature on innovation. The second section (Chapter III) describes the background of

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<sup>23</sup> Glen F. Ovard, Administration of the Changing Secondary School (New York: The Macmillan Co., 1966), p. 174.

<sup>24</sup> Donald C. Manlove and David W. Beggs III, Flexible Scheduling (Bloomington: Indiana University Press, 1965), p. 23.

<sup>25</sup> Philip Lewis, "Study Carrels Sprout in all Parts of the School," Nation's Schools, 77:82-84, June, 1966.

<sup>26</sup> Dorian Ross, "Tel-5, Adventure in Closed Circuit Broadcasting," Educational Screen and Audiovisual Guide, 45:24, May, 1966.

the study and the survey procedures. The third section (Chapter IV) is a report of the findings of the survey of curricular innovations in the public elementary schools of Montana. The fourth section (Chapter V) contains a summary of the findings of the survey, with conclusions and recommendations based on these findings.



## CHAPTER II

### REVIEW OF RELATED LITERATURE ON INNOVATION

One of the most fundamental themes discernable when surveying the educational milieu of today is that of change. John Goodlad states:

Many educational changes have been proposed and some have been effected since the early 1950's but to describe what has been happening to the schools as "revolutionary" would be overstating the case. The talk far exceeds the achievement. Nevertheless, many of our schools differ markedly from what they were even a decade ago. Greatly significant changes have occurred in the curriculum and a massive reformulation of what is to be taught and learned in our schools is under way.<sup>1</sup>

Several forces have increased the tempo of change in our schools, and have determined the direction that change would take.

World War II and its immediate aftermath revealed extensive mathematical and scientific deficiencies among high school graduates. As scientists and scholars became increasingly aware of this problem, some of them, sensing their responsibility toward the problem, began to participate in curriculum reform.

The United States was barely out of a hot war before it found itself engaged in a cold war, a war calling for personnel highly trained in the physical sciences and mathematics. The successful launching of the first

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<sup>1</sup> John I. Goodlad, with Renata Von Stoephasius and M. Francis Klein, The Changing School Curriculum (New York: Georgian Press, Inc., 1966), p. 11.

Russian satellite in 1957 provided spectacular acceleration for curriculum revision, especially in mathematics and the physical sciences.<sup>2</sup>

The economic depression monotonously predicted during the 1950's did not materialize. Instead, an expanding middle class knew greater prosperity and a higher standard of living than ever before. This group of ambitious young people saw education as the road to the good life for their children, and enthusiastically supported new materials and programs initiated by scholars.

Values which had long guided American life began shifting. The lives of millions of persons were changed rapidly and fundamentally in directions and ways often beyond their control. Job opportunities took young couples far from the established family home. Unemployment in the midst of plenty became a problem because of job obsolescence. People began to realize that a fast changing culture demanded both adaptability and a rational approach to problems.

The knowledge explosion was ruling out the traditional approaches to curriculum planning. It finally became apparent that the search for the most important bits and pieces of knowledge ("facts") for transmittal to the next generation was futile. The curriculum was seen to need both fresh infusions of content and comprehensive reorganization emphasizing the structures of the academic disciplines and man's ways of knowing.

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<sup>2</sup> John Goodlad, "The Curriculum," The Changing American School, Sixty-Fifth Yearbook of the National Society for the Study of Education, Part II (Chicago: University of Chicago Press, 1966), p. 35.

The growing emphasis upon the structures and strategies of the subject fields led to experimentation with children's abilities to learn. Efforts to learn more about the processes of thinking and learning became accelerated.<sup>3</sup>

Long overdue recognition of the plight of the culturally deprived began to influence educational change.<sup>4</sup>

The essence of these changes is aptly defined by James Russell.

Profound as these changes seem, each is but a surface reflection of a more profound change which lies at the root of them all, either causing them or making them possible. This is a change in the role of the mind in human affairs, in the role of the rational. It can be called science, but by science we must mean something more comprehensive than physics or chemistry. The processes involved are those of rational inquiry and empirical validation, the harnessing through logic and evidence of the abilities to recall and imagine, to classify and generalize, to evaluate and compare, to analyze and synthesize, to deduce and infer. These processes are coming to play an ever increasing role in our lives.<sup>5</sup>

American society is experiencing, and will continue to experience, an increasing rate of change. Generally the significance of the role of education for the future of society is unquestioned. Education is intimately bound to the social trends and rapid changes that characterize our society. Whether or not education must adapt to changing social conditions is not a debatable point; the alternative to planned change is to be buffeted about by the pressures and demands for educational

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<sup>3</sup> Ibid., pp. 36-37.

<sup>4</sup> Glen Heathers, "The Role of Innovation in Education," The National Elementary Principal, 43:9, September, 1963.

<sup>5</sup> James E. Russell, Change and Challenge in American Education (Boston: Houghton Mifflin Co., 1965), p. 15.

services of many kinds. Planned change permits not only a means of coping with these demands, but makes it possible for people in education to participate in shaping the changes and trends, rather than merely responding to them.<sup>6</sup>

It is apparent that comprehensive changes in the structure and functioning of America's schools are occurring. This discussion, however, will be limited to planned changes, or innovations, that are willfully designed to meet these demands. Miles defines an innovation as ". . . a deliberate, novel, specific change, which is thought to be more efficacious in accomplishing the goals of a system." Miles does not imply that the innovation must be original with the user, but that it is being utilized for the first time in a particular setting.<sup>7</sup>

As one surveys the broad spectrum of educational innovations, several characteristics can be discerned. Current educational innovations give much attention to changes in three areas;

1. Organization for instruction and for administration (team teaching; dual progress; house plan; educational parks);
2. Educational technology with major emphasis on hardware (computer assisted instruction; educational television);
3. Subject matter content in the various curriculum areas (new mathematics; new physics; structural linguistics; Initial Teaching Alphabet; etc.).<sup>8</sup>

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<sup>6</sup> Roland J. Pellegrin, "An Analysis of Sources and Processes of Innovation in Education," (An unpublished paper presented at the Conference on Educational Change, Allerton Park, Illinois, February 28, 1966), p. 1.

<sup>7</sup> Matthew B. Miles (ed.), Innovation in Education (New York: Bureau of Publications, Teachers College, Columbia University, 1964), p. 14.

<sup>8</sup> Robert B. Howsam, "Effecting Needed Changes in Education," Planning and Effecting Needed Changes in Education, ed. by Edgar L. Morphet and Charles O. Ryan (Denver, Colorado: Publishers Press, Inc., 1967), p. 65.

One authority stresses the fact that far less attention is given to teacher behavior and instructional methodology. It seems imperative that much more attention be given to teacher behavior, in order not to nullify the advantages of the innovations. Many innovations are not merely technical or organizational, but instead involve a fundamental reorientation of teaching in directions unfamiliar to the teacher.<sup>9</sup> Increasing stress on knowledge and mastery on the part of pupils requires the same for the teacher. The result has been a growing tendency to require the teacher, regardless of level, to be a specialist to some degree, in a basic field of learning. The teacher is moving away from a position of being exclusively or predominantly a source of data and a dispenser of information. The growing emphasis upon "learning how to learn" means that the teacher must function as a catalyst, as one whose prime obligation is the stimulation of the urge to inquire. As a consequence of these concerns, the teacher's role becomes less didactic and more tutorial; he becomes less a source than a resource for information.<sup>10</sup>

In curriculum reform, attention is focused upon single subjects or disciplines, which are planned, generally, from the top down. The movement may be characterized as discipline centered, rather than child centered or society centered. The ends and means of schooling are derived from organized bodies of knowledge. The structural elements of each discipline are emphasized: the concepts, principles, and modes of inquiry. It is

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<sup>9</sup> Ibid., p. 66.

<sup>10</sup> Gordon C. Lee, "The Changing Role of the Teacher," The Changing American School, Sixty-Fifth Yearbook of the National Society for the Study of Education, Part II (Chicago: University of Chicago Press, 1966), pp. 23-24.

assumed that understanding these elements rather than merely possessing the facts gives the student the ability to attack unfamiliar problems. Ability to think inductively becomes a central goal.<sup>11</sup>

Three factors influencing the movement give it a "national" label. Most of the financial support has come from federal sources. Secondly, project groups are neither approved by nor affiliated with those state and local agencies that have jurisdiction over the school curriculum. Third, some of the projects reflect the concern of learned societies for pre-collegiate curriculum reform and have been sanctioned by these national bodies. Though nationally influenced, the movement is not nationally or federally controlled.<sup>12</sup>

The initial leadership for curriculum change comes from outside of what Conant identified as the "education establishment."<sup>13</sup> Though twenty-five years ago only the curriculum makers, the school administrators, and some social theorists were actively involved in educational innovation,<sup>14</sup> in 1966 Pellegrin could identify ten sources of educational innovation. The ten he identifies are (1) the classroom teacher; (2) the administrator (principal and superintendent); (3) the school board; (4) the lay public;

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<sup>11</sup> John I. Goodlad, with Renata Von Stoepphus and M. Francis Klein, The Changing School Curriculum (New York: Georgian Press, Inc., 1966), pp. 9-15.

<sup>12</sup> Ibid., p. 13.

<sup>13</sup> John Goodlad, "The Curriculum," The Changing American School, Sixty-Fifth Yearbook of the National Society for the Study of Education, Part II (Chicago: University of Chicago Press, 1966), p. 32.

<sup>14</sup> Arthur W. Foshay, Innovations in Education (New York: Bureau of Publications, Teachers College, Columbia University, 1964), p. v.

(5) the state departments of education; (6) education faculties in colleges and universities; (7) professional associations; (8) the U.S. Office of Education and other federal government agencies; (9) textbook publishers; and (10) scientists, technical specialists, and other experts.

Pellegrin is impressed by the fact that the greatest stimuli to changes in education originate in sources external to the field. The sources of innovation lie largely outside the local community, and in most instances outside the educational profession. Innovations are channeled into the local community from the outside. "It is very difficult," he states, "to find parallels to this remarkable situation in other professional fields."<sup>15</sup>

In this unique situation, some attention should be given to the channels by which innovations are brought into the local school, and to the conditions that inhibit and foster educational change. The superintendent is currently viewed by researchers as the key figure in the innovation process at the local level. More than any other person at the local level, the superintendent has the authority to make decisions with regard to the organization and allocation of resources and personnel.<sup>16</sup>

The principal, as well, plays an influential role in the change process. Cooper and other authors describe a trend toward the delegation

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<sup>15</sup> Pellegrin, op. cit., pp. 5-12.

<sup>16</sup> Richard O. Carlson, Adoption of Educational Innovations (Eugene, Oregon: Center for the Advanced Study of Educational Administration, University of Oregon, 1965), pp. 10-11; Gordon N. McKenzie, "Curricular Change: Participants, Power, and Processes," Innovation in Education (New York: Bureau of Publications, Teachers College, Columbia University, 1964), p. 411.

of authority and responsibility to the principal for operational decision-making.<sup>17</sup> An increasing number of principals hold responsibility as well as authority for staffing, organizing, budgeting and selection of teaching materials as well as the instructional program for their school. Thus, it would seem probable that the principal's position would hold increasing potential for implementation of educational innovations in a particular school. Hinman concludes that, "Emerging patterns of school organization place increasing responsibility upon principals for the implementation of innovations in the public schools."<sup>18</sup>

The nature of innovators and adopters who support change has been the object of much recent research.

Rogers categorizes innovators as the first 2½% of an audience to adopt a new idea.<sup>19</sup> He summarizes their salient characteristics in a series of generalizations.

Innovators generally are young . . . venturesome individuals . . . They have relatively high social status, in terms of amount of education, prestige ratings, and income . . . They are cosmopolite . . . participating in affairs beyond the limits of their system . . . They secure new ideas through impersonal, cosmopolite sources . . . Innovators exert opinion leadership . . . They are

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<sup>17</sup> John E. Cooper, Elementary School Principalship (Columbus: Charles E. Merrill Books, Inc., 1967), pp. 1-16; James M. Lipham, "Organizational Character of Education: Administrative Behavior," Review of Educational Research, 34:435-437, October, 1965; Neal Gross and Robert E. Herriott, Staff Leadership in the Public Schools (New York: John Wiley and Sons, 1965), p. vii.

<sup>18</sup> Edna F. Hinman, "Personality Characteristics of Clark County School District Principals Related to the Degree of Their Implementation of Innovation" (Unpublished doctoral dissertation, Utah State University, Logan, Utah, 1966), p. 6.

<sup>19</sup> Everett M. Rogers, Diffusion of Innovations (New York: Free Press of Glencoe, 1962), p. 162.



likely to be viewed as deviants by their peers and by themselves . . . . Innovators are in step with a different drummer than their peers; they march to different music.<sup>20</sup>

When comparing innovative superintendents with all those who had an equal chance to be innovators, Carlson found a tendency for innovators to be younger and to have shorter tenure in their present position.<sup>21</sup> However, Hinman found neither factor to be significantly related to the administrator's involvement in innovation.<sup>22</sup>

Carlson reported that innovative superintendents received higher professional ratings from their peers, and tended to seek advice and information from persons outside the local area.<sup>23</sup>

Hinman's study revealed that principals who are implementors of innovations are more highly creative than are non-innovators.<sup>24</sup>

This finding concurs with Pellegrin's observation that the characteristics of innovative individuals and creative individuals are "very similar."<sup>25</sup>

On a personality inventory, principals who implement innovations were found to score significantly higher on factor E, representing "dominance vs. submission," and factor F, "enthusiastic vs. sober, serious."

<sup>20</sup> Everett M. Rogers, "What Are Innovators Like?", Change Processes in the Public Schools (Eugene, Oregon: Center for the Advanced Study of Educational Administration, University of Oregon, 1966), pp. 58-59.

<sup>21</sup> Carlson, op. cit., p. 65.

<sup>22</sup> Hinman, op. cit., pp. 38-39.

<sup>23</sup> Carlson, loc. cit.

<sup>24</sup> Hinman, op. cit., p. 51.

<sup>25</sup> Pellegrin, op. cit., p. 15.

She cited research supporting her findings that persons possessing these characteristics are proficient in maintaining organizational relationships, interacting freely in group situations, directing the work of others.<sup>26</sup>

Innovative principals were found to be significantly higher on factor H, "adventurous and thick-skinned vs. shy, timid," than were non-innovators. Factor H represents a largely constitutional factor of "autonomic activity level or resilience," which permits a general readiness to venture. A willingness to venture, to be able to withstand the fatigue and strain of the necessary extra effort in initiating structural changes, and insusceptibility to threat of punishments which may accompany failure, are probably necessary attributes for principals who attempt to implement innovations.<sup>27</sup> Hinman summarizes,

In describing innovation in schools as involving a major shift of students, staff, curriculum, schedules, facilities or methods (Brickell, 1964), it is reasonable to expect that skill in directing the efforts of others toward specific reformulation of group behavior, maintaining organizational relationships, dealing with people in emotional situations during a period of change, and possessing the ability to face the grueling wear and tear implicit in such activity would be necessary components in assuring success of the endeavor. Thus, personality characteristics indicated by high scores on factors E, F, and H, i.e., dominance, enthusiasm and a willingness to venture, would appear to be necessary attributes of innovators.<sup>28</sup>

How does the innovator proceed? Authorities in the field of educational change agree that more attention must be given to the processes by which an innovation is to be installed. According to Miles, several strategies appear to be effective:

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<sup>26</sup> Hinman, op. cit., p. 47.

<sup>27</sup> Ibid.

<sup>28</sup> Ibid., p. 48.

1. Comprehensive attention to all stages of the diffusion process, i.e. (a) design--the innovation is invented, produced; (b) awareness-interest, the potential consumers come to be aware of the existence of the innovation and seek information about its characteristics; (c) evaluation--the consumers form opinions about the innovation's effectiveness in accomplishing system goals; and (d) trial--the system engages in a trial of the innovation in order to assess its consequences;
2. The creation of new structures to implement the innovation, rather than using only existing structures hamstrung by the status quo;
3. Congruence with the prevalent ideology in the system receiving the innovation;
4. Use of coalitions or linkage between old and new structures.<sup>29</sup>

Gallaher recommends a pragmatic role for the advocate, the individual or agency who sponsors the innovation for the express purpose of gaining its acceptance by others. The pragmatic advocate is concerned mainly with creating a climate conducive to acceptance. The pragmatic advocate proceeds upon detailed and complete knowledge of the system receiving the innovation, and gives prime consideration to the processes of acceptance. He states,

There is, in fact, a large body of research to support the basic assumptions underlying the pragmatic model, that is that people will more readily accept innovations that they can understand and perceive as relevant, and secondly, that they have had a hand in planning.<sup>30</sup>

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<sup>29</sup> Matthew B. Miles (ed.), Innovation in Education (New York: Bureau of Publications, Teachers College, Columbia University, 1964), pp. 648-649.

<sup>30</sup> Art Gallaher, Jr., "Directed Change in Formal Organizations: The School System," Change Processes in the Public Schools (Eugene, Oregon: Center for the Advanced Study of Educational Administration, University of Oregon, 1966), p. 41.

The task of the advocate is made easier if he has prestige and if the members of the system receiving the change depend upon his authority in matters of change.<sup>31</sup>

Miles suggests that there is another important, but often overlooked aspect of what is being said and done about planned change. He states, "It seems likely that the state of health of an educational organization can tell us more than anything else about the probable success of any particular change effort."<sup>32</sup>

Research efforts have been aimed at isolating factors which can be used to predict the adaptability of educational systems. Ross summarized the two hundred studies of the adaptability of public schools conducted by Paul R. Mort. He wrote, "If but one question can be asked, on the basis of the response to which a prediction of adaptability can be made, the question is: How much is spent per pupil?"<sup>33</sup>

Other authorities feel that Mort's studies were too narrowly conceived, that the studies began and ended with the assumption that the level of expenditure accounts for varying adoption of innovation rates. In his study of Allegheny County, Penn., Carlson found a negative .02

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<sup>31</sup> Ibid., p. 42.

<sup>32</sup> Matthew B. Miles, "Planned Change and Organizational Health: Figure and Ground," Change Processes in the Public Schools (Eugene, Oregon: Center for the Advanced Study of Educational Administration, University of Oregon, 1966), p. 15.

<sup>33</sup> Donald H. Ross (ed.), Administration for Adaptability, Revised Edition (New York: Metropolitan School Study Council, 1958), p. 15.

Spearman rank correlation between the annual expenditure per child and the adoption of modern mathematics. Expenditures per child had a small negative correlation with all the innovations studied.<sup>34</sup>

In one of Paul Mort's last reports, he appears to have broadened his concept of adaptability. His findings indicated that:

Explanation of the differences in educational adaptability of communities can be found in no small degree in the character of the population, particularly in the level of the public's understanding of what schools can do, and citizens' feeling of need for education for their children. This appears to set the posture of the community toward financial support, and toward what teachers are permitted to do--and tends to shape the staff by influencing personnel selected and kept in the community . . . . While citizens' understandings and expectations are somewhat associated with factors like occupation and education of parents (and of those of political power in the community), they can be altered.<sup>35</sup>

Along this same line, he found that a community that pioneers in one area of educational innovation tends to pioneer in other areas as well. A community that is slow to adopt one innovation tends to be slow to adopt others.<sup>36</sup>

A rather disturbing aspect of the change process in the field of education is the very leisurely diffusion rate for innovations. Data

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<sup>34</sup> Carlson, op. cit., p. 9.

<sup>35</sup> Paul Mort, "Studies in Educational Innovation from the Institute of Administrative Research: an Overview," Innovation in Education (New York: Bureau of Publications, Teachers College, Columbia University, 1964), p. 326.

<sup>36</sup> Ibid.

gathered in the 1930's by Mort and Cornell revealed that complete diffusion of successful innovations appeared to take fifty years after the first "authentic introduction."<sup>37</sup>

More recent data suggests that this rate may have accelerated. Bushnell concluded that it probably takes about twenty years for a good educational innovation to be introduced into half of the public schools today.<sup>38</sup>

Information on the use of teacher aides and team teaching are reported by the NEA Project on Instruction. The first introduction of the teacher aide innovation was in 1952. Data from a national sample of elementary and secondary schools indicated that 9% of elementary schools and 18% of secondary schools were using teacher aides during 1960-1961. Although the first formal foundation support of a team teaching proposal did not occur until 1956, 12% of secondary schools sampled were using team teaching in 1960-1961.<sup>39</sup>

Though the rates of educational change have accelerated, much improvement is needed. John Goodlad warns us,

It is dangerous, however, to assume that curricular change has swept through all of our 85,000 public elementary and 24,000 public secondary schools during this past decade of reform. Tens of thousands of schools have scarcely been touched, or not been

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<sup>37</sup> Paul R. Mort and Francis G. Cornell, Abstracts from American Schools in Transition (New York: Bureau of Publications, Teachers College, Columbia University, 1941), p. 32.

<sup>38</sup> Margaret Bushnell, "Now We're Lagging Only Twenty Years," School Executive, 77:63, October, 1957.

<sup>39</sup> NEA Project on Instruction, The Principals Look at the Schools: a Status Study of Selected Instructional Practices (Washington: National Educational Association, 1962), pp. 17-20.

touched at all, especially in areas of very sparse or very dense population. Tens of thousands of teachers have had little opportunity to realize what advances in knowledge and changes in subject fields mean for them.<sup>40</sup>

McPhee concurs with this view:

Progress in education comes slowly and on a broken front. Despite the claims of recent years, schools are not very different from what they were many years ago at the truly important place in education--that place where the teacher and the student confront one another.<sup>41</sup>

McPhee stresses that one of the most crucial barriers to change is the realization that behavioral changes by staff members cannot be assessed on a rational basis alone. He says,

The emotional upheaval which is involved in any significant change is too often ignored by those who write about the change process. Most improvement involves changes in what the teacher must know and must do. This clearly attacks individual vested interests in the psychological sense and we should anticipate the high levels of anxiety which are normal.<sup>42</sup>

Teachers may indeed defeat the intentions of innovators by twisting the expected new behaviors into older and more comfortable ways. Carlson, in a study of a school district's adoption of programmed instruction, reported that teachers modified new procedures to maintain older patterns of teaching.<sup>43</sup>

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<sup>40</sup> John I. Goodlad, School Curriculum Reform in the United States (New York: The Fund for the Advancement of Education, 1964), p. 10.

<sup>41</sup> Roderick F. McPhee, "Planning and Effecting Needed Changes in Local School Systems," Planning and Effecting Needed Changes in Education, ed. by Edgar L. Morphet and Charles O. Ryan (Denver: Publishers Press, Inc., 1967), p. 196.

<sup>42</sup> Ibid., p. 185.

<sup>43</sup> Carlson, op. cit., pp. 83-84.

In separate studies, Lippitt and Carlson both cite as barriers to change the significant lack of a professional network of communicators and agents of change.<sup>44</sup>

Pellegrin agrees with Lippitt's and Carlson's observations, and discusses several additional conditions that pose major impediments to effective change in education.<sup>45</sup> A summary of his discussion follows.

Serious confusion in the field of education concerning the sources of reliable and valid knowledge is apparent. To use Carlson's phrase, education has a "weak knowledge base."<sup>46</sup> The culture of American education is not oriented toward a systematic search for knowledge; nor does it view either theory or research as necessary bases for reliable and valid knowledge.

Considering the tremendous complexity, size and scope of the educational enterprise in the United States, the division of labor that exists is rudimentary and inadequate for the specialized roles that must be performed if the right kinds of innovations are going to be effected.

Training programs for students of education reflect both points just considered. Most training programs do not prepare students for a wide variety of specialized roles; relatively few specialists are prepared, especially in research, development, and dissemination.

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<sup>44</sup> Ronald Lippitt, "Roles and Processes in Curriculum Development and Change," Papers from the Association for Supervision and Curriculum Development Seminar, New Orleans, January, 1965, cited by Roland J. Pellegrin, op. cit., p. 17; Richard O. Carlson, "Barriers to Change in Public Schools," Change Processes in the Public Schools (Eugene, Oregon: Center for the Advanced Study of Educational Administration, University of Oregon, 1966), p. 4.

<sup>45</sup> Pellegrin, op. cit., p. 17.

<sup>46</sup> Carlson, op. cit., p. 5.



The lack of opportunity, resources and settings for introducing innovations on an experimental basis is a serious problem. Objective evaluation in the research program is an infrequent practice.

Channels and procedures for dissemination are not developed adequately. Unlike many academic disciplines, education cannot rely entirely upon the printed media for disseminating information.

How educational practices can be related accurately to the goals and ambitions of the public is uncertain. A paradox exists: while most change in education is externally induced, educators have only limited and highly unreliable means of identifying the scope and intensity of public demands for educational programs.<sup>47</sup>

The American public has not clarified effectively the purposes and objectives of its schools. This lack of clarification, according to John Goodlad, is one of the serious deficiencies of the current change effort.

Little effort has been made to determine the ultimate aims of schooling and the respective contribution each discipline can make to them. Instead, the objectives of schooling have become a composite of the objectives set for each subject. . . . The goals of today's schools do not extend beyond those subjects that have succeeded in establishing themselves in the curriculum.

Persons involved in the various curriculum projects are not and indeed, should not be solely responsible for determining the aims of America's schools. This responsibility falls to the citizenry as a whole. The fact that our communities, generally speaking, have not assumed this responsibility has resulted in a vacuum against which the validity of the projects' objectives cannot be checked.<sup>48</sup>

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<sup>47</sup> Pellegrin, op. cit., pp. 18-20.

<sup>48</sup> John I. Goodlad, with Renata Von Steophasius and M. Francis Klein, The Changing School Curriculum (New York: Georgian Press, Inc., 1966), p. 92.

He proposes,

. . . . a national body of leading citizens whose prime purpose is to give continued attention to the formulation of educational aims, as well as to other educational problems of prime importance.<sup>49</sup>

Attempts are being made in this direction, such as the statement, The Central Purpose of American Education, by the Educational Policies Commission.<sup>50</sup> As yet, no group has formulated a statement with sufficient authority and clarity to command the attention and allegiance of the American lay public, the teaching profession, and the curriculum planning bodies.

Lack of aims for education has forced curriculum project groups to turn in upon their subject for the determination of ends and means. Mastery of the subject is the end; the process of learning the subject is the means. There is no external criterion against which to judge the project's effectiveness. In the concluding chapter of a book dealing extensively and exclusively with innovations in education, the editor, Matthew Miles states, ". . . a near axiomatic statement is this: Educational innovations are almost never evaluated on a systematic basis."<sup>51</sup>

One report spectacularly emphasized this point. A large state procured \$15,420,000 under Title III of NDEA to develop experimental programs in science, mathematics, and foreign languages. After four years

<sup>49</sup> John Goodlad, School Curriculum Reform in the United States (New York: The Fund for the Advancement of Education, 1964), p. 81.

<sup>50</sup> Educational Policies Commission, The Central Purpose of American Education (Washington: National Educational Association, 1961).

<sup>51</sup> Matthew B. Miles (ed.), Innovation in Education (New York: Bureau of Publications, Teachers College, Columbia University, 1964), p. 657.

of operation, the state department of education surveyed the participating schools to obtain information regarding the changes in their school districts. Generally, the responses of the administrators concerning student achievement in the new programs were favorable, even enthusiastic. However, in the vast majority of cases these responses were based upon purely subjective judgment. The study revealed that very few districts had developed an adequate objective evaluation of the program. Less than one-half of one percent of the responses described a scientifically designed attempt to evaluate the effectiveness of a changed program!<sup>52</sup>

Little preparation has been made for this phase of present developments, according to Reynolds. He states the function of the evaluation process,

The most important requirement of an evaluation is that it reveal as objectively and as fully as possible what is happening as a result of the project. It should show the specific abilities or other attributes that are developing among pupils, the extent of such developments and the interaction among pupil characteristics and other variables as the project proceeds. Out of this kind of knowledge, programs can be improved! The purpose of evaluation in education is simply to contribute to improvement in instruction---certainly not to justify projects.<sup>53</sup>

Goodlad cites four methods that have been used to evaluate the new programs.

1. Observations of whether or not the students for whom the material is intended appear to be progressing successfully;
2. Both casual and systematic questioning of students involved in the programs;

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<sup>52</sup> Donald W. Johnson, "Title III and the Dynamics of Educational Change in California Schools," Innovation in Education, ed. by Matthew B. Miles (New York: Bureau of Publications, Teachers College, Columbia University, 1964), pp. 161-169.

<sup>53</sup> Maynard C. Reynolds, "A Crisis in Evaluation," Exceptional Children, 48:586, April, 1966.

3. Periodic examination of students by tests designed to cover the new material; and
4. Comparative testing of students in the new and the old programs with traditional and specially designed tests.<sup>54</sup>

However, some caution should be used in interpreting the evaluation efforts. Schools participating in the projects usually were those with teachers and students of superior ability. Participating schools tended not to be in depressed areas; the students seldom were in the bottom quartile of the ability distribution but often were in the top half. Teachers participated in special institutes and received counsel from the specialists developing the programs.<sup>55</sup>

Very rarely were alternative means of achieving a desired objective developed and tested. Certain assumptions, goals, and ways of achieving these goals have been set forth in advance: certain subjects "belong" in the curriculum, certain methods are appropriate to learn these subjects. Experimentation under these circumstances becomes largely a process of refinement of means.<sup>56</sup>

In the absence of a national consensus of aims for schools, state and local school boards are charged with determining purposes and objectives. These educational goals can be translated into behavioral objectives that can be evaluated.<sup>57</sup> When this guidance is provided, curriculum groups would be obligated to develop the best curriculum patterns to achieve these aims, thus extending their goals beyond the limits of the disciplines.

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<sup>54</sup> Goodlad, op. cit., pp. 59-60.

<sup>55</sup> Ibid., p. 60.

<sup>56</sup> Ibid., pp. 66-67.

<sup>57</sup> Ibid., pp. 55-56.

lacking evaluatory criteria, substitute bases for judgment are used. Adoption and continued use of an innovation by the schools, assuming that efficacy has been demonstrated, usually represent basic criteria for judging the adequacy of an innovative effort. Often the opinions of users and clients are asked, and the extra enthusiasm of teachers and students usually found in a new program is mistaken for the success of the innovation. Other frequently used standards include spread or diffusion of the innovation to other systems, and improved attitudes or skills of the innovating group members.

While serving well as proximate criteria, these associated yardsticks are largely irrelevant to the crucial criteria by which educational innovation must be evaluated. This criteria is the actual efficacy of an innovation in increasing the learning of students.<sup>58</sup>

Important steps are being initiated to cope with the problem of effective evaluation of educational innovations, and to strengthen the process of change so necessary today. In 1964, the United States Office of Education established a Research and Development Center at the University of Oregon, Eugene, Oregon.

One of the four programs currently underway at the Center is the program on Innovations and Organizational Structure in Education. The problems of change processes in educational systems are being investigated. Research is directed toward determining effective strategies and methods of introducing innovations, and isolating critical factors that

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<sup>58</sup> Miles, op. cit., pp. 658-660.

advance or inhibit innovation in the educational system. Two studies completed under this program reported in the publications, Change Processes in the Public Schools, and Adoption of Educational Innovations, were valuable references for this chapter.

Two special aspects of the program are receiving emphasis at present. In Project Base Line, conducted by the Center in cooperation with the Northwest Regional Educational Laboratory and the Oregon Compact, information is being gathered annually from many school districts on the variables affecting conditions for innovation. This periodically revised information will be utilized in research, development, dissemination, and training.

The second activity is that of collecting and maintaining an annotated bibliography on organization and innovation, stored for rapid retrieval. The information will be available to researchers and practitioners through the services of the Educational Resources Information Center Clearinghouse on Educational Administration, which shares facilities with the Center at the University of Oregon.<sup>59</sup>

In the spring of 1965, the United States Office of Education created a nationwide system of clearinghouses to collect, index, and make available to interested persons, information on all aspects of education. This network, the Educational Resources Information Center (ERIC), was originated to provide the educational community and the public access to the growing body of knowledge about education.

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<sup>59</sup> Center for the Advanced Study of Educational Administration, Research and Development: Educational Organization and Administration Information (pamphlet, published at University of Oregon, Eugene, October, 1967), n.p.

In addition to a headquarters office (Central ERIC) in Washington, 18 clearinghouses have been established. The clearinghouses, each specializing in one field, were established at universities or institutions uniquely qualified in the particular field.

To bridge the gap between research and practice, the National Program of Educational Laboratories has been created. According to Bright and Gideonese, these institutions are,

. . . reflections of the conviction that it is not enough to do research; that research must be followed up by development projects which, having established the desired objectives--whether curricular, instructional, organizational, professional, or technical--then move to the development of solutions drawing upon the best that research has to offer. The laboratories have also been charged with the responsibility for active dissemination campaigns based on the successful development projects they and others engage in.<sup>60</sup>

The Northwest Regional Educational Laboratory was established in Portland, Oregon in June, 1966, to serve the states of Montana, Idaho, Oregon, Washington, and Alaska. It is governed by elected and appointed representatives of the region, and counts more than 750 school districts, colleges, universities, professional organization, States Departments of Education, businesses, and industries among its participating members.

Laboratory work plans are based on the judgment and requests of the region's teachers, administrators, state and local school board members, and civic leaders. Three developmental programs are in progress

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<sup>60</sup> R. Louis Bright and Hendrik D. Gideonese, "Research, Development, and Dissemination Strategies in Improving Education," Planning and Effecting Needed Changes in Education, ed. by Edgar L. Morphet and Charles O. Ryan (Denver: Publishers Press, Inc., 1967), p. 98.

at present: Program 100, Developing Instructional Leadership to Improve Teacher Competencies; Program 200, Improving Education for Culturally Different Children; and Program 400, Improving Instruction in Small Schools.<sup>61</sup>

In the brief period since the Laboratory's inception, Montana educators have benefited from the work being done in these programs. Workshops have been held on Development of Higher Level Thinking Abilities and Systematic and Objective Analysis of Instruction. Special educational materials have been prepared for Indian and migrant children. The Laboratory sponsored film slide presentations of exemplary programs in small schools throughout the nation for viewing by administrators of small schools in the state.<sup>62</sup>

The Laboratory and a consortium of thirty-five institutions in the Northwest submitted to the United States Office of Education an innovative proposal<sup>1</sup> of special note. This proposal contains the plans for the development of educational specifications for a model elementary teacher education program. The ComField Program will be built around a competency based, field centered "systems" approach to teacher preparation.<sup>63</sup>

On March 1, 1968, the Laboratory, representing the consortium, was awarded a contract for funding this proposal. Lawrence D. Fish commented upon the proposal's acceptance,

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<sup>61</sup> Northwest Regional Educational Laboratory, Northwest Regional Educational Research Laboratory (pamphlet published at Portland, Oregon, October 1, 1966), n.p.

<sup>62</sup> Northwest Regional Educational Laboratory, Montana Participating in a Partnership for Improving Education in the Northwest (pamphlet published at Portland, Oregon, July 1, 1967), n.p.

<sup>63</sup> Northwest Regional Educational Laboratory, A Competency Based, is Approach to Elementary Teacher Education (Response to Request for Proposal No. OE-68-4, Portland, 1967).



The Office of Education's response to the Consortium's proposal once again reinforces our conviction that cooperative endeavors undertaken by educators in the Northwest can and will provide a powerful stimulus to productive educational change within the region and the nation.<sup>64</sup>

It would appear that the higher institutions, laboratories, professional organizations and educators of the Northwest are initiating ways and means of coping with the process of change. Hopefully, with this concern and direction, the improvement of the educational system in this country will be more rapid.

Investigation of current educational literature revealed a lack of specific studies surveying innovations in the elementary school. No studies similar to the one reported in this thesis were found to be reviewed.

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<sup>64</sup> Personal correspondence from Executive Director Lawrence D. Fish of the Northwest Regional Educational Laboratory to J. Francis Rummel, Dean, School of Education, University of Montana, February 13, 1968. Permission to quote secured.

## CHAPTER III

### SURVEY PROCEDURES

#### I. BACKGROUND OF THE SURVEY

In 1966, the Curriculum and Educational Development Committee of the Montana Education Association conducted a survey of curriculum coordination in twenty-five schools in the state. Seventeen schools responded to the survey, providing information on the organization, functioning, and effectiveness of their curriculum committees.

At its September 23, 1967 meeting, the Committee discussed expanding the previous curriculum development survey. The decision was made to survey the whole state with respect to curriculum innovations. Several units of the Greater University of Montana were requested to identify graduate students interested in participating in the study. The students would develop an instrument to use in the survey, tabulate the results of the survey, and interpret the findings.<sup>1</sup>

#### II. DEVELOPMENT OF THE SURVEY

The purpose of the study and the guidelines to bring about the desired results were discussed at the December 9, 1967 meeting of the Committee. The purpose of the study was stated:

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<sup>1</sup> Curriculum and Educational Development Committee, James Wood, Chairman, minutes of the September 23, 1967, meeting, Helena, Montana. See Appendix C.

The Curriculum and Educational Development Committee of the Montana Education Association, recognizing there are changes taking place in curriculum, is seeking to find curriculum innovations in Montana schools that show some departure from the traditional program.<sup>2</sup>

With this purpose in mind, the following guideline questions were developed.

- "1. What new or additional courses have been added?
2. What innovations have been made in existing courses?
3. What uses are being made of various types of media or of para-professionals?
4. What changes are being made in facilities? New construction?
5. Are there any changes in staff preparation to bring about these curriculum changes?
6. Have you changed staff organization in any way that effects the curriculum?
7. What is the future of this program?
8. What are you planning for the future?
9. Would you allow the students to observe your program if it is desired?"<sup>3</sup>

The students involved in the study on each campus were requested to develop an instrument which would provide answers to the guideline questions. The final form was to be drafted at the next (January 20) meeting of the Committee.<sup>4</sup>

Two graduate students from the University of Montana at Missoula, Don Welti and the writer, prepared tentative drafts of a questionnaire

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<sup>2</sup> Curriculum and Educational Development Committee, James Wood, Chairman, minutes of the December 9, 1967 meeting, Helena, Montana. See Appendix C.

<sup>3</sup> Ibid.

<sup>4</sup> Ibid.

for presentation at the meeting. The guidelines formulated by the Committee and the "Checklist of Educational Innovation" developed by Edna F. Hinman<sup>5</sup> were used as bases for preparing the rough drafts--one to survey high schools; the other to survey elementary (grades 1-6) schools.

Dr. George H. Millis of the University of Montana assisted with the development of the elementary questionnaire. Three elementary principals in the Missoula area read this questionnaire and suggested improvements in it.

At the January 20 meeting of the Committee, the proposed instrument was presented and reviewed. After changes suggested by the Committee were made, the questionnaire was approved. The approved instrument solicited answers from principals to the following questions:

1. What innovations have been added to your school's curriculum within the past 6 years?
2. In your judgment which two innovations of those listed have been most effective in your school?
3. Describe your method of implementing the two most effective innovations?
4. How were the teachers involved in the planning of these innovations?
5. What means of teacher preparation was used to implement the innovations?
6. Who is responsible for evaluating innovations within your school?
7. What innovations have you tried and later abandoned?
8. Have you an idea for an innovation which you believe would improve the working of your school?

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<sup>5</sup> Edna F. Hinman, "Personality Characteristics of Clark County School District Principals Related to the Degree of Their Implementation of Innovation" (Unpublished doctoral dissertation, Utah State University, Logan, Utah, 1966).

The state was divided into four regions; each region was assigned to a unit of the Greater University of Montana for the purpose of surveying the schools and tabulating the results. Region 1 (15 Northwest counties) was assigned to the University of Montana at Missoula. Region 2 (11 West Central counties) was assigned to Western Montana College at Dillon; Region 3 (11 Central counties) was assigned to Montana State University at Bozeman; and Region 4 (19 Eastern counties) was assigned to Eastern Montana College at Billings (See Figure 1, p. 40).

Public secondary and elementary schools with enrollments of over seventy were to be included in the survey. The Montana Education Association office in Helena assumed responsibility for compiling the mailing list, and duplicating and mailing the questionnaires. The questionnaire,<sup>6</sup> with a covering letter<sup>7</sup> prepared by Mr. James Wood, chairman of the Curriculum and Educational Development Committee, was sent to 85 elementary school principals and 8 superintendents in Region 1 on February 5, 1968.

The Field Services director of the Montana Education Association, Mr. Maurice J. Hickey, mailed a letter explaining the purpose of the questionnaire to the superintendents of the schools.<sup>8</sup>

During the first week of March a follow up letter<sup>9</sup> was sent to all administrators who had not returned the questionnaire. Duplicate questionnaires accompanied the letters.

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<sup>6</sup> See Appendix A.

<sup>7</sup> See Appendix B.

<sup>8</sup> See Appendix B.

<sup>9</sup> See Appendix B.

[illegible]

**FIGURE 1**  
**DIVISION OF MONTANA INTO AREAS FOR SURVEY OF INNOVATIONS**

Questionnaires were returned with incomplete information by some respondents. A letter was sent to these respondents requesting the additional information.<sup>10</sup> When possible, telephone calls and visits to the principals clarified the items in question.

### III. GROUPINGS FOR TABULATING THE DATA

The schools were arranged in arbitrary groups according to enrollment to make the tabulations of the data meaningful and manageable. The five groups by size category were:

Group	I	under 200 students
Group	II	200 - 299 students
Group	III	300 - 399 students
Group	IV	400 - 499 students
Group	V	over 499 students

Enrollment figures were obtained from the Montana Educational Directory, 1967-1968.<sup>11</sup> Total elementary enrollment figures only were given for the larger school districts; telephone calls and letters to the administration offices of these districts provided the enrollment figures for the individual schools.

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<sup>10</sup> See Appendix B.

<sup>11</sup> Montana Department of Public Instruction, Montana Educational Directory, 1967-1968 (Helena: Department of Public Instruction, 1967).

## CHAPTER IV

### FINDINGS

This chapter reports the findings of the questionnaires received from the public elementary schools of the fifteen counties of Montana designated as Region I in this study.<sup>1</sup> The schools were arranged in groups according to the size of enrollment as described in the survey procedures.<sup>2</sup> The number and percent of schools responding to the survey in each size category are shown in Table I. Of the 93 questionnaires mailed, 76 were returned, representing a return of 81.7 percent.<sup>3</sup> This was considered a sufficient return to be a valid representation of the schools in the area. Only the schools in Group IV responded with a 100 percent return of the questionnaire.

The specific topics investigated, and reported in this chapter are (1) the number of innovations in the past 6 years reported by the various schools; (2) the innovations reported as most effective; (3) the methods of planning the innovations; (5) the methods of teacher preparation for implementation of innovations; (6) the methods of evaluating the innovations; (7) innovations that have been tried and abandoned; and (8) ideas for innovations that would improve the educational programs in the various schools.

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<sup>1</sup> See Chapter III, Figure 1, p. 40.

<sup>2</sup> See Chapter III, p. 41.

<sup>3</sup> In treating percentages in this report, all percents have been rounded off to the nearest tenth of one percent.



TABLE I

NUMBER AND PERCENT OF RETURNED QUESTIONNAIRES BY  
SCHOOLS IN VARIOUS SIZE CATEGORIES

SIZE OF SCHOOL	NO. OF QUESTIONNAIRES SENT	NO. OF QUESTIONNAIRES RETURNED	PERCENT OF QUESTIONNAIRES RETURNED
Group I under 200	24	19	79.2
Group II 200-299	18	12	66.7
Group III 300-399	23	18	78.3
Group IV 400-499	13	13	100.0
Group V over 500	15	14	93.3
TOTALS	93	76	81.7

## I. THE EXISTENCE OF INNOVATIONS

Table II summarizes the number of innovations reported by the schools classified by size of enrollment. The average number of innovations reported by all schools was 4.9. It will be noted that the schools of larger enrollment size tended to report more innovations per school. Four schools reported that no innovations had been adopted within the past six years. The highest number of innovations reported by a school was sixteen. Most frequently reported were innovations in the fields of reading and the language arts.

Respondents were requested to indicate on the questionnaire how many years each innovation adopted by their respective schools had been in use. Table III shows the total number of innovations reported in each two year period by the schools in each size category.

Of the 369 innovations reported by the principals, the length of time each had been in use was given for 285. The data of Table III indicate that more innovations were adopted within the past two years than in the other time periods.

## II. THE MOST EFFECTIVE INNOVATIONS

Table IV indicates the number of times each innovation was selected by the principals in answer to the question: "In your judgment which two innovations of those listed have been most effective in your school?" Innovations in the field of reading were selected more frequently (37 times) than any other innovation. A variety of reading innovations is being employed in addition to the ones suggested by the questionnaire.

TABLE II

TOTAL NUMBER OF REPORTED INNOVATIONS  
AND AVERAGE NUMBER IN EACH SCHOOL  
IN VARIOUS SIZE CATEGORIES

SIZE OF SCHOOL	NO. OF SCHOOLS	TOTAL INNOVATIONS REPORTED	AVE. NO. OF INNOVATIONS PER SCHOOL
Group I under 200	19	81	4.3
Group II 200-299	12	64	5.3
Group III 300-399	18	69	3.8
Group IV 400-499	13	71	5.5
Group V over 500	14	84	6.0
TOTALS	76	369	4.9

**TABLE III**

**INNOVATIONS ADOPTED IN VARIOUS**

**TIME PERIODS AS REPORTED BY**

**SCHOOLS RESPONDING TO THE SURVEY**

SCHOOL SIZE CATEGORY	NO. OF YEARS OF USE		
	1-2	3-4	5-6
Group I under 200	19	23	19
Group II 200-299	24	7	19
Group III 300-399	26	15	13
Group IV 400-499	25	9	18
Group V over 500	37	13	18
<b>TOTALS</b>	<b>131</b>	<b>67</b>	<b>87</b>

TABLE IV

INNOVATIONS RATED BY PRINCIPALS AS THE  
MOST EFFECTIVE IN THE PRINCIPAL'S SCHOOL

INNOVATION	NO. OF RESPONSES
<u>Reading</u>	
Individual Approach . . . . .	12
Language Experience . . . . .	4
i/t/a . . . . .	3
Other New Approaches* . . . . .	18
<u>Language Arts</u>	
Integrate Language Arts Program . . . . .	5
Early Intro. of Cursive Writing** . . . . .	3
New Approach to Spelling . . . . .	2
Foreign Language . . . . .	1

\* New approaches listed by respondents as "other" included: intensive phonics approach (7), remedial reading specialist (3), non-graded reading classes (2), specific language disability program (2), volunteer "listening mothers", three track program, programmed reading, team teaching of reading, construction of special reading books, use of tape recorder in reading, Joplin plan.

\*\* Respondents indicated that early introduction to cursive writing occurred at grade two.

TABLE IV -- continued

INNOVATION	NO. OF RESPONSES
Modern Mathematics . . . . .	21
New Approach to Social Studies . . . . .	10
New Approach to Science . . . . .	7
Art and/or Music . . . . .	5
Emphasis on Development of Creativity in Pupils . . . . .	3
Special Interest Approach . . . . .	3
Use of Programmed Materials . . . . .	2
Other Innovations* . . . . .	13

\* Innovations listed by respondents as "other" included: video tape language arts project, independent study approach, remedial summer classes, library program, specialist for slow learners, student aides, teacher aides, creative writing, team teaching, elementary guidance counselor, special education room, learning labs, outdoor education.

Receiving most responses were: individualized approach (12), intensive phonics approach (7), language experience (4), i/t/a (3), and remedial reading specialist (3).

Modern mathematics was selected 21 times, which was the second highest number of responses.

Some fields of study are listed on the table with the phrase "new approach." No attempt was made in this table to categorize the various methods and materials employed in the fields of spelling, social science, science, art, and music.

### III. IMPLEMENTATION OF INNOVATIONS

The questionnaire attempted to determine the methods of implementing the innovations in terms of the basic structural elements of the school, i.e., teachers, students, methods, times, and places.<sup>4</sup> Respondents were asked to indicate for the two most effective innovations: the utilization of the staff, procedures (methods), organization (students), scheduling (time), and facilities (places). Table V summarizes the distribution of replies concerning these structural elements. The data of Table V indicates a wide use of many of the "new" methods of implementing innovations.

Provision was made for the respondent to indicate other choices of structural elements than the ones listed on the questionnaire. The method of staff utilization reported for fifteen innovations was the classroom teacher.

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<sup>4</sup> Henry M. Brickell, Organizing New York State for Educational Change (Albany, New York: State Education Department, 1961), p. 11.

**TABLE V**

**METHODS OF IMPLEMENTING THE MOST**

**EFFECTIVE INNOVATIONS AS REPORTED BY**

**THE SCHOOLS IN THE SURVEY**

METHOD OF IMPLEMENTATION	NO. OF SCHOOLS
<b>Staff Utilization</b>	
Teacher aides, student aides, volunteer unpaid aides . . . . .	29
Team teaching, cooperative teaching . . . . .	28
Specialists, elementary art, music, math, etc. . . . .	19
Community resource personnel . . . . .	7
Elementary guidance counselor . . . . .	4
<b>Procedures (Methods)</b>	
Individualized reading . . . . .	31
Discovery and inquiry approaches . . . . .	23
Independent study . . . . .	20
Programmed learning . . . . .	11
Science lab . . . . .	7
Social studies lab . . . . .	3
Electronic language . . . . .	3
<b>Organization (Students)</b>	
Small group techniques within a class . . . . .	53
Ability grouping by grades . . . . .	22
Departmental . . . . .	14
Non-graded . . . . .	9
Multi-age, multi-grade . . . . .	7
Dual progress . . . . .	4
Platoon . . . . .	3



TABLE V -- continued

METHOD OF IMPLEMENTATION	NO. OF SCHOOLS
Scheduling (Time)	
Flexible scheduling . . . . .	41
Broader time blocks . . . . .	34
Special classes . . . . .	19
Staggered sessions . . . . .	6
Extended day--week, or school year . . . . .	3
Facilities	
Transparency, tape, film library . . . . .	44
Central library . . . . .	27
Large and small group instruction centers . . . . .	16
School, team, or department resource centers . . . . .	14
Science laboratory . . . . .	9
Educational television or closed circuit television . . . . .	6
School, team, or department conference centers . . . . .	6
Electronically equipped study carrells . . . . .	4

The data on implementation was examined for each category of schools, according to size of enrollment, to determine whether noticeable differences existed among the various size categories. No noticeable differences could be discerned. (See Appendix E.)

#### IV. THE PLANNING OF INNOVATIONS

To determine the extent of teachers' participation in the planning of innovations, the following question was asked: "How were the teachers involved in the planning of these innovations?" That the teachers were actively involved in the introduction of new methods is indicated by these responses to the question:

Faculty planning meetings . . . . .	48
Curriculum committee . . . . .	4
Teacher (individual) initiated . . . . .	4
Principal initiated . . . . .	3

#### V. TEACHER PREPARATION FOR IMPLEMENTATION OF INNOVATIONS

Authorities in the field of educational change agree that adequate teacher preparation is essential for the effective adoption and continued use of innovations.<sup>5</sup> Responses to the question, "What means of teacher preparation was used to implement the innovations?" are shown on the following page.

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<sup>5</sup> Robert B. Howsam, "Effecting Needed Changes in Education," Planning and Effecting Needed Changes in Education, ed. by Edgar L. Morphet and Charles O. Ryan (Denver: Publishers Press, Inc., 1967), p. 66; Richard O. Carlson, Adoption of Educational Innovations (Eugene, Oregon: Center for the Advanced Study of Educational Administration, University of Oregon, 1965), pp. 83-84.

In-service . . . . .	35
Publisher representative presentation . . . . .	9
Workshop . . . . .	8
Extension course . . . . .	7
Summer school . . . . .	6
School visitation . . . . .	1
Hiring qualified teacher . . . . .	1

## VI. EVALUATION OF INNOVATIONS

Table VI indicates the various personnel responsible for evaluating innovations in the schools responding to the survey. The table also discloses that, in most instances, the evaluation of innovations is a cooperative process. The administration and teachers are reported to be responsible for cooperatively evaluating innovations in 37 schools.

Every innovation was not successful in every school. Evaluation of some programs revealed that they did not increase the learning of the students in a particular school. Lack of funds, trained personnel, or facilities inhibited the effectiveness of various new methods. Table VII shows the innovations that have been tried and abandoned in the schools responding to the survey--presumably because of a negative evaluation. The reasons for abandonment are also shown.

Foreign language was cited most frequently as an abandoned innovation; lack of continuity or follow-up in the upper grades was consistently given as the reason for this abandonment. Ability grouping, the second most frequently mentioned innovation, was abandoned in 7 schools.

TABLE VI

PERSONNEL RESPONSIBLE FOR EVALUATION OF  
INNOVATIONS IN THE SCHOOLS  
RESPONDING TO THE SURVEY

PERSONNEL	NO. OF RESPONSES
Teachers and Principal . . . . .	25
Principal . . . . .	11
Teachers, Administration, Curriculum Coordinator . . . . .	7
Specialist . . . . .	4
Teachers, Students, Parents . . . . .	2
Teachers, Students, Administration . . . . .	2
Principal and Superintendent . . . . .	2
Curriculum Committee and Administration . . . . .	1
Principal, Curriculum Coordinator, Supt. . . . .	1
Testing Program . . . . .	1
Teachers, Administration, School Board, Lay People . . . . .	1

TABLE VII

INNOVATIONS TRIED AND ABANDONED

IN THE SCHOOLS

RESPONDING TO THE SURVEY

INNOVATION ABANDONED	REASON FOR ABANDONMENT	NO. OF SCHOOLS REPORTING ABANDONMENT OF THIS INNOVATION
Foreign Language	Lack of Continuity	8
Ability Grouping	Lack of Leadership	7
Remedial Reading	Lack of Space and Funds	3
Ungraded Classroom	Lack of Materials	2
Departmentalization of Upper Grades	Too Rigid	2
Individualized Approach	Lack of Time	1
Flexible Scheduling	Too Few Students	1
Student Council and Court	Immature Students	1
Cursive Writing at Grade 1	Immature Students	1
Cooperative Teaching	Inexperienced Teachers	1
Conferences With Parents Before P.T.A.	Lack of Parental Response	1
Language Experience for Upper Grades	Lost Its Effectiveness	1

## VII. SUGGESTED FUTURE INNOVATIONS

To discern ideas for the future in the schools of Montana, the question was asked, "Have you an idea for an innovation which you believe would improve the working of your school? Please describe." The responses to this question are summarized in Table VIII.

The innovation, "non-graded classes" was suggested most frequently by the principals. Curriculum improvement and individualizing instruction were also frequently suggested. Several principals indicated that the innovation described in answer to this question would soon be adopted in their schools.

## VIII. CHAPTER SUMMARY

The reports of principals on the questionnaires indicate that most elementary schools participating in the survey of the fifteen counties of northwest Montana have adopted several innovative practices within the past six years. More innovations were reported as having been adopted within the past two years than in the previous years. Innovations in the field of reading were reported more frequently than any other innovation, and also received the highest number of responses as the "most effective" innovation.

Team teaching and teacher aides were reported as being frequently used methods of staff utilization. The classroom procedures frequently employed were "individualized reading" and "discovery and inquiry approaches" the classroom organization commonly utilized was "small group techniques

TABLE VIII

SUGGESTED INNOVATIONS AS REPORTED BY  
THE PRINCIPALS RESPONDING TO THE SURVEY

SUGGESTED INNOVATION	NO. OF RESPONSES
Non-graded Classes . . . . .	11
Miscellaneous* . . . . .	8
Individualizing Instruction . . . . .	7
Improved Facilities and Materials . . . . .	6
Team Teaching . . . . .	5
Improved Library, Resource Center . . . . .	4
Specialized (Master) Teachers . . . . .	4
Modular, Flexible Scheduling . . . . .	3
Curriculum Coordination . . . . .	3
Departmentalization of Upper Grades . . . . .	3
Improved Reading Program . . . . .	3
Pre-school Education . . . . .	2
In-service on Creativity . . . . .	1

\* Innovations suggested included: revised math, science, spelling, health, and linguistic English programs.

within a class." Flexible scheduling or broader time blocks were the methods of scheduling frequently reported. Facilities reported as most used were "transparency, tape, film library," and the central library.

Principals indicated that teachers were actively involved in the planning of the innovations, and received preparation for adopting the new practices through in-service meetings or other professional training.

In most schools, the essential process of evaluation of innovations were reported as being accomplished cooperatively by the administration and staff. After evaluation, some innovations were found to be ineffective in a particular school and were abandoned.

Ideas to improve the educational program of the schools were elicited from the principals. Most frequently suggested ideas were non-graded classes, curriculum improvement, and individualizing instruction.



## CHAPTER V

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### I. SUMMARY

The purpose of this study was to identify curricular innovations in the public elementary schools of northwest Montana. The area of study included the following fifteen counties: Ravalli, Granite, Lewis and Clark, Powell, Teton, Pondera, Liberty, Toole, Glacier, Flathead, Lincoln, Sanders, Lake, Missoula, and Mineral.

This study of fifteen counties was part of a statewide survey of curricular innovations conducted by the Curriculum and Educational Development Committee of the Montana Education Association.

To help identify the curricular innovations and to provide answers to the guideline questions proposed by the Committee, a questionnaire was developed.

Answers to the following questions were solicited from the elementary school principals in the schools included in the survey: (1) What innovations have been added to your school within the past six years? (2) What two innovations of those listed have been most effective in your school? (3) Describe your method of implementing the two most effective innovations. (4) How were the teachers involved in the planning of these innovations? (5) What means of teacher preparation was used to implement

the innovations? (6) Who is responsible for evaluating innovations within your school? (7) What innovations have you tried and later abandoned? Why? (8) Have you an idea for an innovation which would improve the working of your school?

## II. CONCLUSIONS

### The existence of innovations.

1. Of the seventy-six schools responding to the survey, only four reported no innovative practices adopted within the past six years.

2. Most schools reported using several innovations. The average number of innovations reported for all schools was 4.9 innovations.

3. The schools of larger enrollment size tended to initiate and adopt more innovations.

4. The most frequently reported innovations were in the fields of reading and language arts.

5. The findings indicate that more innovations have been implemented in the past two years than in previous years.

### The "most effective" innovations.

1. Innovations in the field of reading were selected as "most effective" by the principals more frequently than any other innovation.

2. Modern mathematics was the second most frequently selected innovation.

3. Innovations in the field of language arts ranked third in frequency of selection.

4. Innovations in various other fields, including social studies, science, art, and music, were also selected as "most effective."

5. Innovations not readily classified into a curricular field were also rated by principals as "most effective." Among these were creativity development, programmed materials, independent study approach, and special interest approach.

#### Implementation of innovations.

1. The most frequently selected methods of staff utilization were "teacher aides, student aides, volunteer unpaid aides" and team teaching, cooperative teaching."

2. The procedures employed most frequently in implementation were "individualized reading" and "discovery and inquiry approaches."

3. Small group techniques within a class and ability grouping by grades were the types of student organization most commonly used.

4. The scheduling methods most frequently employed were flexible scheduling and broader time blocks.

5. The facilities chosen most frequently were "transparency, tape, film library" and central library.

6. The data on implementation appeared to indicate an emphasis upon individualizing instruction to fit student needs.

The planning of innovations. In most schools responding to the survey, the teachers were actively involved in the planning of the innovations.

Teacher preparation for implementation of innovations. In most schools, the process of adopting innovative practices included teacher preparation. In-service preparation, workshops, and publisher representative presentations were methods commonly used.

Evaluation of innovations. In all but eleven schools responding to the survey, the evaluation of innovations was reported to be a cooperative process involving the teachers and principal. In some instances, other administrative personnel, the students, and parents participated in the evaluative process.

The abandonment of innovations.

1. Foreign language was the most frequently abandoned innovation; ability grouping ranked second in order of frequency of abandonment.

2. Lack of the subject's effectiveness, lack of qualified personnel, lack of money, time, and materials were cited as reasons for abandonment.

Suggested future innovations.

1. Many and varied ideas for the future were expressed by the principals. Non-graded classes was suggested most frequently, with curriculum improvement and individualized instruction ranking second and third, respectively, in order of frequency of selection.

2. Many improvements that could be made possible by increased funds, i.e., specialists, better facilities, and new materials, were also suggested.

### III. RECOMMENDATIONS

This study was limited in scope to the identification of curricular innovations in the public elementary schools of the fifteen counties of northwest Montana. Further exploration beyond this initiatory step could yield information of value to the educators of the state. The following studies are suggested:

1. The development of a better instrument for an exploratory study of this nature.
2. A study to obtain detailed descriptions of the most promising innovations reported.
3. A study, more limited in scope, examining in depth one of the innovations frequently adopted, e.g., reading innovations.
4. The process of innovation per se in the schools of the state might well be studied.
5. A study to discern the causes for the lack of innovativeness found in many of the schools surveyed.
6. A study to determine the extent of scientific evaluation of innovations employed in the schools of the state.
7. A study to develop better instruments or methods of evaluating innovations.

## BIBLIOGRAPHY

### A. BOOKS

- Anderson, Robert H. Teaching in a World of Change. New York: Harcourt, Brace and World, Inc., 1966.
- Carlson, Richard O. Adoption of Educational Innovations. Eugene, Oregon: Center for the Advanced Study of Educational Administration, University of Oregon Press, 1965.
- Carlson, Richard O., et al. Change Processes in the Public Schools. Eugene, Oregon: Center for the Advanced Study of Educational Administration, University of Oregon Press, 1966.
- Cooper, John E. Elementary School Principalship. Columbus: Charles E. Merrill Books, Inc., 1967.
- Educational Policies Commission, The Central Purpose of American Education. Washington: National Education Association, 1961.
- Gleason, Gerald T. (ed.) The Theory and Nature of Independent Learning. Scranton: International Textbook Co., 1967.
- Good, Carter V. Dictionary of Education. New York: McGraw-Hill Book Co., 1959.
- Goodlad, John I. School Curriculum Reform in the United States. New York: The Fund for the Advancement of Education, 1964.
- Goodlad, John I. (ed.). The Changing American School. Sixty-Fifth Yearbook of the National Society for the Study of Education. Part II. Chicago: University of Chicago Press, 1966.
- Goodlad, John I. "Ability Grouping," Encyclopedia of Educational Research. Third Edition. New York: The Macmillan Co., 1960.
- Goodlad, John I. and Robert H. Anderson. The Non-graded Elementary School. New York: Harcourt, Brace and World, Inc., 1963.
- Goodlad, John I., with Renata Von Steophasius and M. Francis Klein. The Changing School Curriculum. New York: The Georgian Press, Inc., 1966.

- Gross, Neal and Robert E. Herriot. Staff Leadership in the Public Schools. New York: John Wiley and Sons, 1965.
- Hillson, Maurie. Elementary Education. New York: The Free Press, 1967.
- Lamb, Pose. Linguistics in Proper Perspective. Columbus: Charles E. Merrill Co., 1967.
- Manlove, Donald C. and David W. Beggs III. Flexible Scheduling. Bloomington: Indiana University Press, 1965.
- Miles, Matthew B. (ed.). Innovation in Education. New York: Bureau of Publications, Teachers College, Columbia University, 1964.
- Morphet, Edgar L. and Charles O. Ryan (eds.). Prospective Changes in Society by 1980. Denver: Bradford-Robinson Printing Co., 1966.
- Morphet, Edgar L. and Charles O. Ryan (eds.). Implications for Education of Prospective Changes in Society. Denver: Bradford-Robinson Printing Co., 1967.
- Morphet, Edgar L. and Charles O. Ryan (eds.). Planning and Effecting Needed Changes in Education. Denver: Publishers Press, Inc., 1967.
- Mort, Paul R. and Francis G. Cornell. Abstracts from American Schools in Transition. New York: Bureau of Publications, Teachers College, Columbia University, 1941.
- National Education Association. The Principals Look at the Schools A Status Study of Selected Instructional Practices. Washington: National Education Association, 1962.
- National Educational Association. Innovations for Time to Teach. Washington: National Education Association, 1966.
- Ovard, Glen F. Administration of the Changing Secondary School. New York: The Macmillan Co., 1966.
- Rogers, Everett M. Diffusion of Innovations. New York: The Free Press of Glencoe, 1962.
- Ross, Donald H. (ed.). Administration for Adaptability. Revised Edition. New York: Metropolitan School Study Council, 1958.
- Russell, James E. Change and Challenge in American Education. Boston: Houghton Mifflin Co., 1965.
- Schoolfield, Lucille D. and Josephine B. Timberlake. The Phonovisual Method. Washington: Phonovisual Products, Inc., 1960.

- Schram, Wilbur. Four Case Studies of Programmed Instruction. New York: The Fund for Advancement of Education, 1966.
- Stoddard, George D. The Dual Progress Plan. New York: Harper and Brothers 1961.
- Veatch, Jeanette. Individualizing Your Reading Program. New York: G.P. Putnam's Sons, 1959.
- Wilhelms, Fred T. Evaluation as Feedback and Guide. Washington: Association for Supervision and Curriculum Development, National Education Association, 1967.
- Wilson, Robert C. "Creativity," Education for the Gifted. Fifty-Seventh Yearbook of the National Society for the Study of Education. Part II. Chicago: University of Chicago Press, 1958.

#### B. PUBLICATIONS OF THE GOVERNMENT, LEARNED SOCIETIES AND OTHER ORGANIZATIONS

- Brickell, Henry M. Organizing New York State for Educational Change. Albany, New York: State Education Dept., 1961.
- Center for the Advanced Study of Educational Administration. Research and Development: Educational Organization and Administration Information. Eugene, Oregon: University of Oregon Press, 1967.
- Johnson, Homer M., with George M. Carnee and Clifford J. Lawrence. Personality Characteristics of School Superintendents in Relation to Their Willingness to Accept Innovation in Education. Research Project for the United States Office of Education, Utah State University, Logan, Utah, 1967.
- Montana Department of Public Instruction. Montana Educational Directory 1967-1968. Helena: Department of Public Instruction, 1967.
- Northwest Regional Educational Research Laboratory. Portland, Oregon: Northwest Regional Educational Laboratory, 1966.
- Northwest Regional Educational Laboratory. Montana Participating in a Partnership for Improving Education in the Northwest. Portland, Oregon: Northwest Regional Educational Laboratory, 1967.
- \_\_\_\_\_. A Competency Based, Field Centered Systems Approach to Elementary Teacher Education. Portland, Oregon: Northwest Regional Educational Laboratory, 1967.
- Xerox Education Division. Words in Color. New York: Xerox Education Division, undated .



## C. PERIODICALS

- Bushnell, Margaret. "Now We're Lagging Only Twenty Years," School Executive 77:63-64, October, 1957.
- Gardner, John. "The Impact of Change on Education," National Education Association Journal, 48:49-51, November, 1959.
- Heathers, Glen. "The Role of Innovation in Education," National Elementary Principal, 43:8-14, September, 1963.
- Lewis, Philip. "Study Carrels Sprout in all Parts of the School," Nations Schools, 77:82-84, June, 1966.
- Lipham, James M. "Organizational Character of Education: Administrative Behavior," Review of Educational Research, 34:435-454, October, 1965.
- Meil, Alice. "The Importance of People: Innovation and People," Educational Leadership, 22:585-589, May, 1965.
- Millis, George H. "A Functional Language Arts Program," Montana Education, 41:13-14, November, 1964.
- Reynolds, Maynard C. "A Crisis in Evaluation," Exceptional Children, 48:586-589, April, 1966.
- Ross, Dorian. "Tel-5, Adventure in Closed Circuit Broadcasting," Educational Screen and Audiovisual Guide, 45:24-25, May, 1966.
- Sinks, Naomi B. "A Special Interest Approach," The Instructor, 76:145, November, 1966.
- Strickland, Ruth. "Innovations in the Language Arts: Language Experience," National Elementary Principal, 43:53-60, September, 1963.

## D. UNPUBLISHED MATERIALS

- Hinman, Edna F. "Personality Characteristics of Clark County School District Principals Related to the Degree of Their Implementation of Innovation." Doctoral Dissertation, Utah State University, Logan, Utah, 1966.
- Marcum, Laverne R. "Organizational Climate and the Adoption of Educational Innovations." Doctoral Dissertation, Utah State University, Logan, Utah, 1968.

Pellegrin, Roland J. "An Analysis of Sources and Processes of Innovation in Education." Paper presented at the Conference on Educational Change, Allerton Park, Illinois, 1966.

Wahlstrom, James E. "A Study of Organizational Procedures for Curriculum Improvement in Selected School Districts in Washington, Oregon, and California." Doctoral Dissertation, University of Washington, Seattle, Washington, 1966.

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## **APPENDIX A**

### **THE QUESTIONNAIRE**

1

SURVEY OF CURRICULAR INNOVATIONS  
IN MONTANA PUBLIC SCHOOLS  
Elementary (1-6)

Identification: Town or City \_\_\_\_\_ Name of School \_\_\_\_\_

- I. What innovations (courses, approaches to courses, marked changes in course content) have been added to your school's curriculum within the past 6 years? Please circle the appropriate numbers below, and indicate in the space provided how long each innovation has been used.

Reading

No. of years used

- |  |       |
|--|-------|
| 1. Individualized approach   | _____ |
| 2. Language experience   | _____ |
| 3. I.T.A.  | _____ |
| 4. Linguistic approach   | _____ |
| 5. Words in color  | _____ |
| 6. Phonovisual   | _____ |
| 7. Other (Identify, briefly describe, and indicate length of time used.) |       |

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Language Arts

- |  |       |
|--|-------|
| 8. Integrated language arts program  | _____ |
| 9. Structural grammar  | _____ |
| 10. Early introduction of cursive writing  |       |
| What grade? _____ How long used? _____   |       |
| 11. New approach to spelling (Identify, briefly describe, and indicate length of time used.) |       |

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12. Foreign Language. How long used? \_\_\_\_\_
- Starts at what grade level? \_\_\_\_\_

Other Areas

- |  |       |                   |
|--|-------|-------------------|
| 13. Modern mathematics   | _____ | no. of years used |
| 14. New approach to social studies. (Briefly describe and indicate length of time used.) |       |                   |

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Y OF CURRICULAR INNOVATIONS  
IN MONTANA PUBLIC SCHOOLS  
Elementary (1-6)

Identification: Town or City \_\_\_\_\_ Name of School \_\_\_\_\_

- I. What innovations (courses, approaches to courses, marked changes in course content) have been added to your school's curriculum within the past 6 years? Please circle the appropriate numbers below, and indicate in the space provided how long each innovation has been used.

Reading

No. of years used

- |  |       |
|--|-------|
| 1. Individualized approach   | _____ |
| 2. Language experience   | _____ |
| 3. I.T.A.  | _____ |
| 4. Linguistic approach   | _____ |
| 5. Words in color  | _____ |
| 6. Phonovisual   | _____ |
| 7. Other (Identify, briefly describe, and indicate length of time used.) |       |

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Language Arts

- |  |       |
|--|-------|
| 8. Integrated language arts program  | _____ |
| 9. Structural grammar  | _____ |
| 10. Early introduction of cursive writing  |       |
| What grade? _____ How long used? _____   |       |
| 11. New approach to spelling (Identify, briefly describe, and indicate length of time used.) |       |

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12. Foreign Language. How long used? \_\_\_\_\_
- Starts at what grade level? \_\_\_\_\_

Other Areas

- |  |       |                   |
|--|-------|-------------------|
| 13. Modern mathematics   | _____ | no. of years used |
| 14. New approach to social studies. (Briefly describe and indicate length of time used.) |       |                   |

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15. New approach to science. (Briefly describe and indicate length of time used)

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16. Art and/or Music. (Briefly describe, and indicate length of time used)

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Miscellaneous

17. Emphasis on development of creativity in pupils. \_\_\_\_\_no. of years used

18. Special interest approach. \_\_\_\_\_no. of years used

19. Use of programmed materials. \_\_\_\_\_no. of years used

If innovations you have used, or are using, are not covered in these categories please identify, briefly describe and indicate the length of time used.

20. \_\_\_\_\_

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II. In your judgment which two innovations of those listed have been most effective in your school?

Number \_\_\_\_\_

Number \_\_\_\_\_

III. Place the numbers chosen above in answer to question II in front of the phrases below that describe your method of implementing the two most effective innovations.

Staff utilization

- \_\_\_\_\_ A. Team teaching, cooperative teaching
- \_\_\_\_\_ B. Specialists, elementary art, music, math, etc.
- \_\_\_\_\_ C. Teacher aides, student aides, volunteer unpaid aides
- \_\_\_\_\_ D. Elementary guidance counselor
- \_\_\_\_\_ E. Community resource personnel
- \_\_\_\_\_ F. Other (describe) \_\_\_\_\_

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Procedures (methods)

- ☐ A. Individualized reading
  - ☐ B. Electronic language lab
  - ☐ C. Programmed learning
  - ☐ D. Independent study
  - ☐ E. Social studies lab
  - ☐ F. Science lab
  - ☐ G. Discovery and inquiry approaches
  - ☐ H. Other (describe) \_\_\_\_\_
- 

Organization (students)

- ☐ A. Platoon
  - ☐ B. Dual Progress
  - ☐ C. Non-graded
  - ☐ D. Multi-age, multi-grade
  - ☐ E. Small group techniques within a class
  - ☐ F. Ability grouping by grades
  - ☐ G. Departmental
  - ☐ H. Other (describe) \_\_\_\_\_
- 

Scheduling (time)

- ☐ A. Broader time blocks
  - ☐ B. Staggered sessions
  - ☐ C. Extended day--week, or school year
  - ☐ D. Special classes
  - ☐ E. Flexible scheduling
  - ☐ F. Other (describe) \_\_\_\_\_
- 

Facilities

- ☐ A. Science laboratory
  - ☐ B. Electronically equipped study carrells
  - ☐ C. School, team, or department resource centers
  - ☐ D. School, team, or department conference centers
  - ☐ E. Large and small group instruction centers
  - ☐ F. Educational television or closed circuit television
  - ☐ G. Transparency, tape, film library
  - ☐ H. Central library
  - ☐ I. Other (describe) \_\_\_\_\_
- 

Student enrollment

Number of students involved in each of the two innovations indicated in II on page 2:

\_\_\_\_\_  
Innovation circled

\_\_\_\_\_  
No. of students involved

\_\_\_\_\_  
Innovation circled

\_\_\_\_\_  
No. of students involved

IV. How were the teachers involved in the planning of these innovations?

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V. What means of teacher preparation was used to implement the innovations

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VI. Who is responsible for evaluating innovations within your schools?

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VII. What innovations have you tried and later abandoned? Why?

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VIII. Have you an idea for an innovation which you believe would improve the working of your school? Please describe.

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Person Reporting \_\_\_\_\_

Position \_\_\_\_\_



## **APPENDIX B**

### **LETTERS TO ACCOMPANY THE QUESTIONNAIRE**

# Montana Education Association

1232 East Sixth Avenue  
Helena, Montana 59601

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Telephone 442-4250

February 5, 1968

Dear Sir:

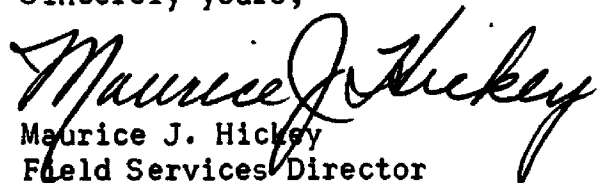
Questionnaires were mailed today to your elementary, junior and senior high school principals. Each individual is requested to answer it for his school.

This program is the one that I made reference to in Great Falls at your administrators' meeting.

The study is being sponsored by the Curriculum and Educational Development Committee of the MEA. Graduate students will write theses as a result and the MEA will serve as a repository for the compiled information. A brief summary of each division of the state as well as a summary of the state will be available.

I hope you will urge your principals to return the survey as quickly as possible.

Sincerely yours,

  
Maurice J. Hickey  
Field Services Director

MJH/at

# Montana Education Association

1232 East Sixth Avenue  
Helena, Montana 59601

Telephone 442-4250

February 5, 1968

Dear Principal:

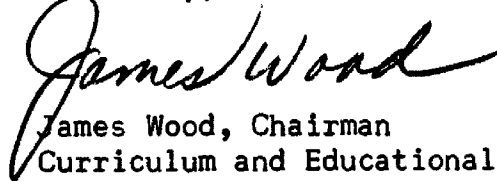
The enclosed questionnaire was designed by two graduate students from the University of Montana aided by the MEA Curriculum and Educational Development Committee and graduate students from Montana State University and Western Montana College.

The state has been divided into four areas and the information will be compiled at Eastern Montana College, Western Montana College, Montana State University, and the University of Montana. The questionnaire is being sent to all building principals and superintendents of town and millage schools in the state. We urge everyone to fill it out and return it as quickly as possible.

The results of the survey will be available in many forms: brief summaries of the four areas surveyed and a final summary for the entire state. The MEA will be a repository for many of the innovations and brief reports will appear in the MEA Journal and the news edition.

Please encourage each of your colleagues in your system to answer and return the questionnaire as soon as possible.

Sincerely,

  
James Wood, Chairman  
Curriculum and Educational  
Development Committee

Enclosures



UNIVERSITY OF MONTANA  
MISSOULA 59801    PHONE 243-0211

SCHOOL OF EDUCATION

February 29, 1968

Dear Principal

The questionnaire "Survey of Curriculum Innovations in Montana Public Schools" which was sent to you February 5 has not been received in our office.

To accurately report on the innovative practices in Montana it is essential that we receive replies from every school in the state.

We have enclosed an additional questionnaire for your use if the original has been misplaced.

Please complete and return the questionnaire as soon as possible.

Sincerely yours

Marilyn Lind

Donald Welti

ljg

Enclosure: Questionnaire

N.B.

These two graduate students are working hard on these data as a basis for masters' theses. They are working under my supervision. I will be grateful to you for supplying the information they request. I know you are busy, but hope you will spare the time to help with this important project. Time is important since we have to get tabulations made within the next two weeks.

Linus J. Carleton  
Professor of Education



UNIVERSITY OF MONTANA  
MISSOULA 59801    PHONE 243-0211

SCHOOL OF EDUCATION

March 6, 1968

Dear

I appreciate your prompt reply to our questionnaire, "Survey of Curriculum Innovations in Montana Public Schools." However, to make our report more accurate and complete, some additional information is needed.

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Would you please make this addition and return the questionnaire as soon as possible.

Thank you for your time and cooperation.

Sincerely yours

Marilyn Lind

ljg

Enclosure: Questionnaire

N.B.

Marilyn Lind is doing this research under my direction as a part of her master's program. I urge that you provide all variable help in supplying complete data. Time is important since she has to get tabulations made within the next two weeks.

Linus J. Carleton  
Professor of Education

**APPENDIX C**

**MINUTES OF THE COMMITTEE**

**1**

**MEETINGS DEVOTED TO THE SURVEY**

MINUTES  
CURRICULUM AND EDUCATIONAL DEVELOPMENT COMMITTEE

September 23, 1967

Meeting was called to order by Chairman James Wood of Sidney. Introductions were made of those present:

Mrs. Pat Stevens of Fort Benton, Curriculum Coordinator; Mr. Carl Hansen, Montana Center for the Physically Handicapped at Eastern; Dr. Linus Carleton, Assistant Dean of Education at Missoula.

The meeting opened with general discussion about the areas that have been covered by the committee. The most recent study, "Slow Learner," was turned over to the Montana Reading Council because it was so directly related to reading.

The last study made by the committee began with a survey of curriculum coordination in 25 schools. A report of this study was given to the 1967 Delegate Assembly by Gerald Roth. It was recommended that Mr. Roth be contacted to see if he would give the information he had received to the committee for review and further study.

After some discussion it was recommended that the committee survey the whole state with respect to "curriculum innovations" in the various schools. After such information is compiled, a current file will be maintained in the MEA office so it will be available to others.

Further suggestion was made to call upon the colleges to see if they might have a graduate student who would be interested in developing an instrument to conduct the survey and compile the information. Chairman Wood will write letters to the Deans of Education at Eastern, Western, Montana State University and University of Montana.

A meeting has been called for November 4 to identify the problem to the students and review what the committee wants included in the instrument. It is hoped that the students might be able to use the information as a basis for a thesis in their graduate program.

There being no further business the meeting adjourned.

## EDUCATIONAL DEVELOPMENT COMMITTEE

December 9, 1967

The meeting convened at 9:45 a.m., December 9, 1967, with James Wood, chairman, presiding. Members present at the meeting were Francis Olson, Carl Hansen, Patricia Stevens, and Linus Carleton. Maurice J. Hickey, staff consultant, and two University of Montana students, Marilyn Lind and Don Welti, were also present.

Chairman Wood began the meeting by relating the ideas about curriculum innovations discussed during the first meeting for the benefit of the new committee member, Mr. Olson, and the two University students. Discussion centered around the purpose of the study and guidelines that would bring about the desired results.

The purpose of the study was stated as follows: The Curriculum and Educational Development Committee of the MEA, recognizing there are changes taking place in curriculum, is seeking to find curriculum innovations in Montana schools that show some departure from the traditional program.

With the above purpose in mind, the following guideline questions were developed:

1. What new or additional courses have been added?
2. What innovations have been made in existing courses?
3. What uses are being made of various types of media or of para-professionals?
4. What changes are being made in facilities? New construction?
5. Are there any changes in staff preparation to bring about these curriculum changes?
6. Have you changed staff organization in any way that effects the curriculum?
7. What is the future of this program?
8. What are you planning for the future?
9. Would you allow the students to observe your program if it is desired?

### GENERAL GUIDELINES:

The students who are involved in the program on each campus will develop an instrument around the guidelines and one final instrument will be drafted in Bozeman on January 20. The final instrument will be sent to the MEA Office for mailing to school administrators and small school principals in the state. Each unit of the University or the students involved will be responsible for return envelopes to be inserted with the original mailing of the instrument.

It is recognized that if there are only two students, the decision as to how much use is made of the guidelines will have to be left to the students and the advisor.



The committee agrees that the students are not necessarily limited to the specific guidelines as written in these minutes.

All students are to be selected on the campuses by December 15.

The meeting adjourned at 3:15 p.m.

MINUTES  
CURRICULUM AND EDUCATIONAL DEVELOPMENT COMMITTEE

January 20, 1968

Meeting was called to order at 10 a.m. on January 20 by Dr. Linus Carleton who presided in the absence of Chairman James Wood.

Chairman Wood had indicated at the December meeting that it wouldn't be necessary for all Committee members to be present for the January 20 meeting as general guidelines for the instrument to be used in the survey of curriculum innovations in Montana schools had already been agreed upon. Introductions were made of those present: Committee members Dr. Linus Carleton and Carl Hanson; Mrs. Marilyn Lind and Don Welte, graduate students from the University of Montana; Harold J. "Buck" Gaustad, graduate student from Montana State University; and Gile Mitchell, graduate student of Western Montana College. Maurice J. Hickey, staff consultant, was also present.

The meeting was called to review and finalize the instrument to be used in the survey. Mrs. Lind and Mr. Welte presented drafts of an instrument to be considered by those present. The instrument has two parts - one to cover the elementary program grades (1-6), and the other to cover the secondary program grades (7-12).

After reviewing the proposed instrument and making some changes, they were approved. Mr. Gaustad requested time to check some of the points to be raised with some local educators in Bozeman. Further changes are to be sent to Dr. Carleton by January 31, 1968.

Also considered was how much of the state is to be covered, and the areas that each party would survey. The state was divided into four areas from north to south and the following counties were assigned:

Mrs. Lind and Mr. Welte will tabulate and prepare a thesis on the results of their survey of the western area consisting of the following counties: Ravalli, Granite, Powell, Lewis and Clark, Teton, Pondera, Liberty, Toole, Glacier, Missoula, Mineral, Sanders, Lake, Flathead, and Lincoln.

Mr. Mitchell will survey and tabulate the results for Hill, Chouteau, Cascade, Judith Basin, Meagher, Broadwater, Jefferson, Silver Bow, Deer Lodge, Madison, and Beaverhead counties.

Mr. Gaustad is to survey and tabulate the results for Blaine, Phillips, Fergus, Petroleum, Wheatland, Golden Valley, Musselshell, Sweet Grass, Stillwater, Park, and Gallatin counties.

Two graduate assistants from Eastern Montana College will survey and tabulate the eastern area consisting of the following counties: Sheridan, Daniels, Valley, Roosevelt, Richland, McCone, Garfield, Prairie, Dawson, Wibaux, Fallon, Carter, Powder River, Custer, Rosebud, Treasure, Big Horn, Yellowstone, and Carbon.

Each party doing the survey will furnish sufficient self-addressed stamped envelopes to the MEA office where the final form of the instrument will be printed and mailed to principals and superintendents of town schools. Where towns are known to have several schools, a survey will be mailed to each building principal.

If a follow-up is necessary, the committee agreed that the individuals conducting the survey in each area would be responsible for it. These individuals are responsible for tabulation of the results in their area and after their use of the data is satisfied, a copy of the paper or thesis is to be forwarded to the MEA office which will serve as a repository for this information.

3:30 p.m.

## **APPENDIX D**

### **TABULATION OF INNOVATIONS**

1

TABLE IX

TABULATION OF INNOVATIONS REPORTED BY ELEMENTARY SCHOOLS  
IN FIFTEEN COUNTIES OF NORTHWEST MONTANA

INNOVATION REPORTED	NO. OF SCHOOLS REPORTED USING
<u>The Field of Reading</u>	
Individualized approach . . . . .	24
Language experience . . . . .	12
Intensive phonics approach . . . . .	9
Reading labs . . . . .	8
Phonovisual . . . . .	8
i/t/a . . . . .	7
Non-graded reading . . . . .	5
Linguistic approach . . . . .	4
Remedial reading . . . . .	4
Words in color . . . . .	3
Three track program . . . . .	3
Specific language disability program . . . . .	2
Programmed reading . . . . .	2
Team teaching of reading . . . . .	1
Multi-media approach . . . . .	1
Reading specialist . . . . .	1
Specially constructed texts . . . . .	1
Joplin plan . . . . .	1
Library program . . . . .	1
"Listening mothers" . . . . .	1
Use of tape recorder . . . . .	1
Total	98
<u>The Field of Language Arts</u>	
Early introduction to cursive writing* . . . . .	22
Integrated language arts . . . . .	20
New approach to spelling . . . . .	14
Structural grammar . . . . .	7
Foreign language . . . . .	8
Video tape project . . . . .	1
Creative writing . . . . .	1
Linguistic approach in English . . . . .	1
Total	74

\* Respondents indicated that early introduction to cursive writing occurred at grade two.

TABLE IX -- continued

INNOVATION REPORTED	NO. OF SCHOOLS REPORTED USING
<u>The Field of Science</u>	
Discovery approach . . . . .	10
Not described . . . . .	9
Group experimental work . . . . .	3
Multi-media approach . . . . .	2
Team teaching of science . . . . .	1
Science specialist . . . . .	1
Process emphasis approach . . . . .	1
Outdoor education . . . . .	<u>1</u>
Total	28
<u>The Field of Social Studies</u>	
Multi-media approach . . . . .	5
Not described . . . . .	5
Current events . . . . .	4
Broad fields approach . . . . .	3
Problem solving approach . . . . .	<u>3</u>
Total	20
<u>The Fields of Art and Music</u>	
Music supervisor . . . . .	5
Music specialist . . . . .	4
Music theory . . . . .	2
New texts . . . . .	2
Part-time aides in music . . . . .	1
Touring band/orchestra . . . . .	1
Art supervisor . . . . .	2
Creativity emphasis . . . . .	2
Ceramics . . . . .	2
Part-time aides in art . . . . .	1
Traveling art exhibit . . . . .	1
Not described . . . . .	<u>1</u>
Total	24

TABLE IX -- continued

INNOVATION REPORTED	NO. OF SCHOOLS REPORTED USING
Emphasis on Development of Creativity . . . . .	20
Programmed Materials . . . . .	18
Special Interest Approach . . . . .	10
<u>Subject Field Not Specified</u>	
SRA labs . . . . .	6
Student aides . . . . .	2
Elementary guidance counselor . . . . .	2
Remedial summer classes . . . . .	2
Independent study approach . . . . .	1
Cooperative teaching . . . . .	1
Departmentalization of sixth grade . . . . .	1
Slow learner specialist . . . . .	1
Teacher aides . . . . .	1
Team teaching . . . . .	1
Intensive multi-media approach . . . . .	<u>1</u>
Total	19
GRAND TOTAL . . . . .	369

**APPENDIX E**

**IMPLEMENTATION OF INNOVATIONS AS REPORTED**

**BY SCHOOLS IN VARIOUS SIZE CATEGORIES**

TABLE X

TABULATION OF IMPLEMENTATION PROCEDURES AS REPORTED  
BY SCHOOLS IN VARIOUS SIZE CATEGORIES

PROCEDURE	SIZE CATEGORY					TOTALS
	over 500	400- 499	300- 399	200- 299	under 200	
<hr/>						
<u>Staff Utilization</u>						
Team Teaching	6	3	8	5	6	28
Specialists	3	2	8	3	3	19
Teacher Aides	9	2	3	8	7	29
Elem. Guidance Counselor	3	0	1	0	0	4
Comm. Resource Personnel	0	1	3	0	3	7
Classroom Teacher	6	0	4	3	2	15
 <u>Procedures</u>						
Individ. Reading	5	2	8	6	10	31
Electronic Lang. Lab	1	1	0	0	1	3
Programmed Learning	4	0	3	2	2	11
Independent Study	2	2	4	3	9	20
Social Studies Lab	0	0	2	1	0	3
Science Lab	3	2	2	0	0	7
Discovery, Inq. App.	5	3	7	5	3	23
 <u>Organizations</u>						
Platoon	1	0	0	0	2	3
Dual Progress	0	0	1	0	3	4
Non-graded	3	0	4	0	2	9
Multi-age, Multi-grade	0	0	0	4	3	7
Sm. Groups in Class	12	5	12	10	14	53
Ability Grouping	8	0	9	5	0	22
Departmental	4	3	5	2	0	14



TABLE X -- continued

PROCEDURE	SIZE CATEGORY					TOTALS
	over 500	400- 499	300- 399	200- 299	under 200	
<u>Scheduling</u>						
Broader Time Blocks	11	2	9	5	7	34
Staggered Sessions	0	0	2	2	2	6
Extended Time	0	0	0	2	1	3
Special Classes	6	1	6	4	2	19
Flexible Scheduling	8	4	13	10	6	41
<u>Facilities</u>						
Science Lab	2	2	3	0	2	9
Study Carrels	1	2	0	1	0	4
Resource Centers	2	1	7	1	3	14
Conference Centers	0	0	4	2	0	6
Lg. and Sm. Group Instr. Centers	4	1	5	2	4	16
Educ. Television	0	1	3	1	1	6
Film Library	8	6	13	7	10	44
Central Library	7	2	10	5	3	27