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EXTENT OF UTILIZATION OF THE TEAM TEACHING METHOD AND THE APPROACHES EMPLOYED IN TEAM TEACHING IN THE PUBLIC SCHOOLS OF THE STATE OF MONTANA

by

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ABSTRACT

This study was an investigation of team teaching in the public schools of the State of Montana.

A review of the literature pertaining to team teaching revealed that early studies following introduction (1958) into the galaxy of teaching methods were concerned with substantiating the necessity and desirability of utilizing teaching teams. The lack of contrary empirical evidence abetted the gradual adoption of the method. In 1967, approximately forty-one per cent of the Nation's schools were using team teaching. More recent studies were mainly concerned with examining the effects of team teaching upon the teaching staff and administration. Numerous articles have been written which call for more extensive research into all phases of the method.

The procedure of this descriptive investigation was to survey a proportionally stratified random sample of public school principals. Data collected was presented in tabular and graphic forms.

Seventy-seven per cent of the questionnaires mailed to the sample principals were returned (eleven per cent of the total population).

The team teaching utilization rate was thirty-five per cent. Larger schools (five hundred students and more) were the leaders in adopting the method mainly due to larger facilities and teaching staffs affording more specialization. The mean number of years of team teaching was two and nine-tenths. Montana schools were very slow in adopting the method.

English, social studies, mathematics and art were the subjects in which team teaching was used most extensively.

The major advantage of team teaching was the better utilization of the teaching staff. The main disadvantage was the greater amount of time consumed in teacher preparation.

Sixty-five per cent of the schools did not use team teaching. Three schools had adopted the method only to abandon the utilization.

More than one-half of the schools which did not use team teaching had considered adopting the method. The central reasons for rejecting the method were lack of proper facilities and lack of a properly trained teaching staff.

As with any teaching method, there are certain inherent advantages and disadvantages. However, this method is a prospering and viable tool for Montana educators.

Chapter 1

INTRODUCTION

In a stable, slowly changing culture, the system of education can afford to depend basically on vertical transmission of knowledge (Johnson and Hunt, 1968). However, in our realm of rapid change where change is ever accelerating, this slow and inadequate type of apron string teaching is out of step with the remainder of the Nation. Margaret Mead believes that what is needed and what we are moving toward, is the inclusion of another dimension of learning, i.e., the lateral transmission of what has been discovered, invented, created, etc. (Mead, 1958). The team teaching method, devised mainly as an answer to a nationwide teacher shortage, attempts to incorporate different elements of the educational milieu in a program which broadens the transmission of knowledge. Any system which purports to increase the effectiveness of education and has received wide acceptance by the educational community requires continuous review and examination in order to more realistically evaluate its merits and usefulness.

Statement of the Problem

The purpose of this study was to investigate the extent of utilization of the team teaching method and the approaches to the method employed in the public schools of the State of Montana. An evaluation of the degree of acceptance of team teaching by the public

school educators in Montana was accomplished. The opinions of these educators toward team teaching effectiveness was solicited in order to determine the future needs for team teaching in the State.

Need of the Study

The education profession has been accused of complete invariance to progressiveness. This accusation might best be directed toward those who commission education - the people.

According to Johnson and Hunt (1968) there are many problems confronting those who seek a rationale for team teaching. There appears to be heavy evidence that team teaching is more effective than a single teacher teaching alone. They report that this assumption cannot be completely supported at this time, but evidence is mounting that the method is worthy of the most exhaustive opportunity for success. In addition, they call for more research into the team teaching approaches which are utilized. Any thorough research into the utilization of this teaching method can add to the knowledge and effectiveness that educators seek. The great shortage of teachers has diminished. A decision concerning the utilization of a method geared to saving teaching time in an era experiencing the adequacy or surplus of the number of qualified teachers needs to be made. The local situation will dictate the answer. The appropriateness of the method in Montana needs to be examined. The inferences from this study enhance the knowledge of

educators in public schools, educators of future teachers in our institutions of higher learning, and the general public of the State of Montana.

General Questions to be Answered

The study was conducted to answer the following questions regarding team teaching in the public schools of the State of Montana:

1. To what extent is team teaching utilized by the public schools?
2. What approach to team teaching has been adopted by the public schools?
3. To what extent has team teaching been tried and discontinued in these schools?
4. Why is team teaching advantageous in the public schools of Montana?
5. What disadvantages of team teaching have been noted in these schools?
6. What has precluded schools from employing the team teaching method?
7. Which disciplines in these schools lend themselves to team teaching?

General Procedure

To fulfill the purpose of this study it was necessary to obtain data from educators in public schools throughout the State of Montana. This data was collected by the researcher through the use of a mailed questionaire. The instrument was sent to a random sample of the prin-

cipals of public schools (including elementary schools, junior high schools, and senior high schools). The responses of these educators was compiled and inferences made from the random sample data to the total population (all public schools in the State of Montana).

The random sample was chosen by utilizing random number tables and assigning numbers to all schools listed in the 1971-72 Montana Education Directory.

Administrators were chosen as spokesmen for the schools because they were in the best position to evaluate or obtain the evaluation of the curricula and teaching methods employed.

The mail instruments were coded in order to maintain an accurate record of those principals who did not respond to the initial mailing. Follow-up mailings were made to non-respondents in order to obtain a high percentage of respondents within the sample.

General questions posed earlier in this study were answered by the respondents. The findings are presented in tabular and graphic form in Chapter 3.

Limitations and Delimitations

As the problem states, the study was limited to the public schools of the State of Montana and generalizations concerning team teaching outside of the State of Montana cannot be made based on this research.

There are 902 operating public schools in the State of Montana

(Montana Department of Public Instruction, 1971). This study was limited to 521 of these schools (377 elementary schools, 139 junior and senior high schools, and 5 vocational-technical schools). Eliminated from the population were 321 elementary schools (199 one-teacher schools, 79 two-teacher schools, and 43 three-teacher schools), 58 junior and senior high schools, and 3 community colleges. The elementary and secondary schools were eliminated because they do not possess the professional staff nor the student population to even consider team teaching. The community colleges were eliminated because this study will be concerned with only the kindergarten-twelfth grade level of education.

Further, the study was limited to research of those general questions outlined above. The subject of team teaching is far reaching and could be most exhaustive as a research subject (Smith and Fitch, 1964).

Definition of Terms

The following terms used in this study are defined so that all readers may have a common frame of reference:

1. Team Teaching: An arrangement whereby two or more teachers, with or without teacher aides, cooperatively plan, instruct and evaluate one or more class groups in an appropriate instructional space and given length of time, so as to take advantage of the special competencies of the team members. (Singer, 1965).

2. Teacher Aide: An individual member of the teaching team who does not possess any particular competence, but who can successfully complete many of the tasks for which teachers are responsible even though the tasks are not directly associated with the teaching function. (Johnson and Hunt, 1969).

3. Single-Discipline Team: Two or three teachers from the same department, teaming together to instruct a common set of students. Teaching periods may be scheduled side by side or consecutively. (Singer, 1965).

4. Interdisciplinary Block of Time Team: Teachers from different disciplines given a common block of time to use as the team sees fit for the instruction of a common set of students in classes of flexible size. (Singer, 1965).

5. School-Within-School Team: Teachers from all disciplines responsible for the instruction of the same body of students over an extended period of time, usually two to four years. (Singer, 1965).

6. Team Leader: A teacher, usually the most technically competent or the person with the greatest leadership ability, who coordinates and directs the team's efforts.

Summary

The search for the most comprehensive and effective education for the youth of our Nation is a continuing process. Perfection has eluded educators as is true of any changing profession, especially in the behavioral sciences.

Team teaching as an instrument of this search has attempted to answer a teacher shortage, increase the focus on individualized instruc-

tion while combining groups into larger complements, and draw upon the special competencies of the individual teacher in combination with colleagues.

This study investigated the status of team teaching in Montana. It was designed to objectively report on the scope and approach of the method and to obtain a prediction of the future role of team teaching in Montana. It is hoped that the results of the study will be of assistance to all educators in this State.

Chapter 2

REVIEW OF RELATED LITERATURE

Introduction

Unlike many methods of teaching which evolved over an extended period of trial-and-error until they were accepted by a large sector of academia or espoused by one or more influential educators, team teaching was developed as an answer to a crisis. Therefore, the method of organization of the related literature was historical. The reader should keep in mind the chronological development from the crisis until today, noting that the acceptance of innovative methods of teaching is not easily achieved. There are pros and cons for every facet of education and team teaching is not alone in this phenomenon. In reviewing the myriad of literature produced since the development of this teaching method, the investigator has attempted to not bias the reader.

Crisis and Proposal

In the decade following the cessation of the hostilities of World War II, education in the United States faced a desperate crisis. There was an acute shortage of teachers, many curriculum changes were needed, and there was a population boom producing more students than the educational system was equipped to assimilate.

The National Association of Secondary-School Principals appointed

the Commission of the Experimental Study of the Utilization of the Staff in the Secondary School in January, 1956. The Commission was charged with the implementation of "A Proposal Designed to Demonstrate How Improved Teacher-Utilization Can Help to Solve the Problem of Teacher Shortage in the High Schools of the United States." This proposal has been recommended by the Curriculum Planning and Development Committee of the Association. Funds were provided for the implementation by the Fund for Advancement of Education and the Ford Foundation. The proposal basically stressed the improvement of the quality of instruction through the improved use of staff resources while meeting the teacher shortage. Obviously, there was a two-fold purpose (Sanford, 1958). The Commission now had the blueprint for action and the funds with which to carry out their study of the proposal.

Early Studies

By 1961, Anderson reported there were about 100 communities engaged in one form or another of team teaching with hundreds of other communities known to be planning for implementation (Anderson, 1961).

One of these communities engaged in team teaching within their school district was San Diego, California. Beginning in 1958, a two-year study was conducted. The objectives of the study would coincide with the objectives of the other communities throughout the United States of America which cooperated with the Commission. These

objectives were:

1. To extend the utilization of a small group of teachers to a larger group.

2. To provide effective instruction by utilizing non-certified assistants.

3. To assist in recruitment of potential teachers for the future.

4. To improve the quality of the school's instruction through team teaching.

During and at the end of the first year of the study, the methods of evaluation of the project were strictly subjective (interviews with teachers, observation of classes, interviews with teacher aides, and time-diaries prepared by each teacher and teacher aide). A more objective evaluation was used in the second year of the project. Questionnaires for teachers and students were designed and administered to obtain the reaction of both pupils and teachers to team teaching. In addition, a limited and debatable achievement testing program was administered to the students. The investigators made the following inferences from their evaluation findings:

1. Student achievement appeared to be slightly better in team teaching classes than in regular classes.

2. Students can do more independent study and engage in self-directed learning experiences.

3. Teachers can work better with high-ability and low-ability students in the same class.

4. There was evidence of professional growth of the teachers.

5. No best team organization was identified (Bloomenshine, 1961).

The total subjectivity of this research is evident. Contrast this study with a review of another study conducted in Taylorville (Illinois) Senior High School.

The Taylorville study was conducted at approximately the same time as the San Diego study. It was also a two-year study. Three questions were set forth for investigation at Taylorville:

1. Does team teaching improve student achievement?
2. Does team teaching influence student attitudes?
3. Does team teaching effectively utilize the teaching staff?

Achievement tests were administered during and at the conclusion of the two-year study. The investigator retained the null hypothesis that there was no significant difference between students who were taught by a team and those who were not. The findings were based on a statistical test of significance enabling the investigator to be 95 per cent confident that the results were not by chance alone.

Student attitudes were tested, but there was not enough scientific data assembled to justify any conclusion.

In investigating whether team teaching effectively utilized the teaching staff, it was found that released time from teaching duties did not compensate for the additional planning, obstacles of grading, keeping records, etc.

In each instance, the basic questions were either answered negatively or the data was insufficient to justify an answer. Even after this empirical evidence, the investigator concluded by stating:

> "In spite of the findings indicated by the scientific data, the teachers felt that there was enough of value in the teacher-team experiment to warrant its continuation " (Dillon, 1961:83).

The early studies funded by the Commission produced mixed results. It would be easy to conclude, but difficult to prove, that the approach of the investigators and the Commission was clouded by their bias - a desparate need to correct the conditions of the crisis facing education at that time. The method did and does have advantages and disadvantages. It did become generally accepted. It is appropriate to quote the Chairman of the Commission, J. Lloyd Trump, at the time that the early studies were coming to an end.

> "Opportunities for improving classroom instruction were greater in the project classes than in customary classes. Classes of varied sizes offered opportunities to use a variety of techniques, instructional materials, and sources of information. The use of the specialized talents of available staff was extended in all cases. When all the returns were in from team teaching projects, these reports stood out. Team teaching provides the setting in which individual teachers can best use and further develop their individual talents. Students can benefit from the best that teachers have to offer " (Trump and Baynham, 1961: 86-87).

Recent Studies

As the Nation changed, the crisis of education in the 1950's gave way to other problems of this modern era. The early days of experimentation in team teaching have passed and the method is now firmly entrenched in the American educational system. The pace of change has not been rapid and the same questions concerning the prerequisites to team teaching implementation are still being asked. Not every school has or should utilize team teaching. Boren points out the basic prerequisites (some tangible and some intangible) for team teaching. These prerequisites are: the principal and the teachers must fully understand and support the method; there must exist an atmosphere for open and honest criticism of the method between the teachers; the school should seek expert help in setting up their program; an atmosphere for acceptance of an educational change should be present or created; and provisions must be made for extra building (classroom) space. Boren states that by developing a firm philosophical rationale and commitment, and by proceeding with sound planning and action, team teaching can be used in schools for the betterment of all concerned (Boren, 1969).

It has been approximately 15 years since the original proposal for team teaching. Most recent literature concentrates on the effects of team teaching, instead of examining the need and desirability of the method, such as the Boren study cited above.

For example, Cunningham (1964) studied the effect of a teacher's personality and background on the teaching team. The study involved 32 teacher teams (101 teachers) in the schools of Jefferson County, Colorado. The researcher concluded that:

1. teachers should possess a higher educational degree;

2. teachers should always teach in their area of major interest; and

3. teachers who are cooperative, ingenious and ambitious make the best team members.

In addition, Cunningham states that the following ingredients should be present in any successful team teaching effort.

1. The administration must show faith in team teaching and give the project unfailing backing.

2. Teachers and team leaders, especially, must be carefully selected.

3. The team teachers should be younger than the team leader, possess a masters degree, have shown interest to continue their own education, and work in their major field of competence.

In a completely different look at team teaching, McLane, Finkbiner, and Evans (1969) investigated the effects of team teaching upon objective evaluation in the classroom. The investigators agreed unanimously that team teaching was a step forward in seeking objectivity in evaluation. Evaluation was considered not only in terms of students' grades but also in a broader sense of judgment of student performance and learning. Correlations were drawn between students' desire

to participate in classes taught by teams, students' grades, and students' intelligence quotients.

Attempting to categorize the recent literature concerning team teaching is analogous to acting as a judge arbitrating a dispute between management and labor. It appears that most of the literature is aimed at either praising or condemning team teaching. Meyer has capsulized this dissension. He points out that over 41 per cent of 7,000 accredited high schools in the North Central Association of Colleges and Secondary Schools surveyed reported utilizing some form of team teaching (Carvelti, 1967). However, 4.3 per cent of the Nation's secondary schools had at one time used, then abandoned, team teaching. It appears that the primary reason for opposition to team teaching is that the method decreases the amount of valuable pupil-teacher personal relationships and tends to emphasize unduly the acquisition of information. Meyer states that team teaching is clearly experiencing a "period of crisis" (Meyer, 1969). It seems ironic that a method developed as an answer to a crisis in education is now undergoing its own crisis.

The call for more thorough research has been loud and clear. William Georgiades (1967) looks with favor upon team teaching when the program is cooperatively planned, uses paraprofessional aides, has material support, provides for adequate preparation of teachers, and has a climate of positive administrative support. However, it is too

early to give an authoritative evaluation of team teaching, and no final judgment should be made until comprehensive evaluations are carried out (Georgiades, 1967). Two other noted educators agree that more evidence - logical, psychological, empirical - needs to be gathered and evaluated before the profession rushes to adopt it on a wholesale basis. "We think that it has great potential, but we do not know that it has " (Fraenkel and Gross, 1967). Many questions need to be continuously asked concerning the attainment of the objectives of any teaching method. These questions must receive positive answers in order to carry on a program of team teaching.

Summary

A review of literature related to team teaching could be quite extensive. Smith and Fitch have researched all forms of team teaching literature and compiled a bibliography containing 977 works (Smith and Fitch, 1964). The investigator has presented in this review representative literature of the varying studies available.

The review supports Meyer's view that team teaching is an accepted method in American education, but it is in dubious standing with educators today (Meyer, 1969). The crisis which precipitated the study of staff utilization and the funding of projects to test the

feasibility of team teaching has passed. For example, it is generally conceded that a drastic shortage of teachers no longer exists.

Early studies were geared to examine the feasibility of the adoption of a new teaching method; whereas, later studies investigated the effect of team teaching upon the teaching staff, the student, and society in general.

Although team teaching, as any teaching method, has been open to recent criticisms, investigators Johnson and Hunt point to a bright future for team teaching.

> "Constant seeking of new ways to improve teaching has made our public school system what it is today. Educational leadership must continually aid this searching. Team teaching is an instrument, that used properly, will service new ways to improve teaching " (Johnson and Hunt, 1968:132).

Chapter 3

PROCEDURES

The problem under investigation is to determine the extent of utilization of the team teaching method and the approaches to team teaching employed in the public schools of the State of Montana. This study was also designed to obtain the opinions of Montana school administrators toward the effectiveness of team teaching.

This portion of the study describes the procedures used in investigating the problem. The discussion includes a description of the population, the sampling procedure utilized, the categories investigated, the method of collecting the data, the method of organizing the data, the general questions, the manner in which the data was analyzed, and the precautions that were taken to assure accuracy.

Population Description

The population of this study consisted of 521 public school principals in the State of Montana. Excluded from the total public schools in Montana were all one-teacher schools, two-teacher schools, three-teacher schools, and community colleges. The 1971-72 Montana Education Directory lists 902 operating public schools, October 1, 1971 (Montana Department of Public Instruction, 1971). The population schools were defined as follows:

Total Operating Elementary Schools	698	
Less one-teacher, two-teacher, and three-teacher Elementary Schools	-321	377
Total Accredited Junior High Schools and Operating Senior High Schools	197	
Less one-teacher, two-teacher, and three-teacher Junior High and Senior High Schools	- 58	139
Vocational-Technical Education Centers		5
TOTAL for population of this study		521

Sampling Procedure

The population schools were arbitrarily stratified by the investigator to the following criteria:

Student Enrollment of the School	Arbitrary Class Assignment
1 - 99	D
100 - 499	C
500 - 999	B
1000 and over	A

The 521 school principals composing the population were classified according to this criteria and the proportion of each class of the total was calculated.

The sample was a proportionally stratified random sample. The State of Montana ranks 4th in total area among the United States; however, the State ranks only 43rd in total population in comparison

to the other States. There are only 5 people per square mile in Montana. In addition, the student/teacher ratio in Montana's public schools is approximately 21 students per teacher (Kurtz, 1969). Due to the sparse population and relative rural society, there is a high percentage of small school districts (less than 500 students enrolled) in the State. In order to include a satisfactory representation of school districts with an enrollment of 500 students or more (only 15 per cent of the total public schools), a sample containing 70 public school principals was chosen. The following steps were taken in drawing this sample (13.4 per cent of the population).

1. Utilizing the 1971-72 Montana Education Directory, each school was assigned to a class.
2. A list of schools in each class was prepared.
3. Each school was assigned a number within the class to which it was assigned.
4. The amount of the sample to be drawn from each class was calculated in direct proportion to the percentage that the class composed of the total number of schools in the population. Table 1 shows this calculation.
5. The sample of each class was drawn utilizing a table of random numbers (U.S. Interstate Commerce Commission, 1952).

Table 1

Calculation of Proportionally
Stratified Random Sample

Arbitrary Class	Number of Population Schools	Per Cent of Population	Number of Sample Schools	Per Cent of Sample
A	20	4	3	4
B	58	11	8	11
C	360	69	48	69
D	83	16	11	16

Investigative Categories

The areas which were examined in this study were (1) the amount of utilization of team teaching in Montana as reported by principals of the public schools of Montana; (2) the opinions of these administrators concerning the effectiveness of team teaching in facilitating learning as well as staff utilization and professionalism; (3) the factors which deter the adoption of team teaching; (4) the reasons for discontinuing team teaching which was earlier adopted; and (5) which approaches to team teaching are employed in the public schools of Montana.

Method of Collecting Data

A questionnaire was mailed to each school principal chosen in the sample. Accompanying the instrument was a cover letter, Appendix A, page 46 . The instrument included three parts:

1. An instruction sheet including definitions of terms to facilitate uniform interpretation, Appendix B, page 48.

2. A questionnaire printed on yellow paper to be completed by those respondents whose schools presently utilize the team teaching method, Appendix C, page 51 .

3. A questionnaire printed on green paper to be completed by respondents whose schools do not utilize the team teaching method, Appendix D, page 54 .

The items in the instrument were examined for content validity by the investigator and colleagues of the investigator. Due to the time limitation, the reliability of the instrument items was not tested.

Method of Organizing Data

Most of the data compiled from the sample respondents' questionnaires is presented by frequency distributions in tabular form in Chapter 4 of this study. This was done to assist the reader in comparing the different team teaching approaches and, more importantly, the rationale and conclusions of those principals whose schools utilize team teaching vis-a-vis those principals whose schools do not presently utilize the team teaching method.

In addition, pie diagrams and histograms depict the factors which comprise the investigative categories.

General Questions

This study was basically descriptive in nature; therefore, the questions which the study was designed to answer are as follows.

1. To what extent is team teaching utilized by the public schools of Montana?
2. What approach to team teaching has been adopted by the public schools of Montana?
3. To what extent has team teaching been tried and discontinued in these schools?
4. Why is team teaching advantageous in the public schools of Montana?
5. What disadvantages of team teaching have been noted in these schools?
6. What has precluded schools from employing the team teaching method?
7. Which disciplines in these schools lend themselves to team teaching?

Analysis of Data

The sample data related to each question investigated is presented in Chapter 4. Interpretations concerning each set of data are included with the tabular or graphic presentation. Percentage comparisons compose the bulk of the analysis. From these analyses, point inferences were made in Chapter 5.

Data compilation and calculations were done manually by the investigator and verified on an electric calculator.

Summary

This chapter has outlined the procedure of this study. The population of 521 principals of Montana public schools and the procedures for drawing a sample of 70 of these principals have been described.

In addition, the methods of collecting data from the sample and organizing the data for presentation to the reader have been presented.

The general questions have been formulated and the manner in which the data related to these questions was analyzed has been set forth.

The investigator's desire is to accurately and adequately provide information concerning team teaching in the public schools of Montana for the benefit of the educators of Montana as well as those who prepare the future educators, i.e., college professors of education.

Chapter 4

FINDINGS

Introduction

The findings of this study are based on the data provided by a sample of public school principals in the State of Montana. The questionnaire (Appendixes A, B, C and D) was mailed to each of the 70 public school principals selected for the sample. Figure 1 geographically portrays the location within the State of the schools which were selected. Determination of the sample is explained in Chapter 3. The data from the sample principals who responded has been compiled and is presented with interpretations in the following sections of this chapter.

Response to the Mailed Instrument

The instrument was mailed to 70 public school principals. Tables 2 and 3 show a break down of the responses by arbitrary class (student enrollment) and type of school.

The response rate was 78.57 per cent of the sample. Of the responses, one was unusable and not tallied in the findings. Therefore, the actual usuable response rate was 77.14 per cent. The size of the school (student enrollment) appears to have a direct relation to the percentage of response and interest in the team teaching method. Also, the ability to utilize teachers in their specialty areas in the higher grades appears to influence the response rate. The opposite

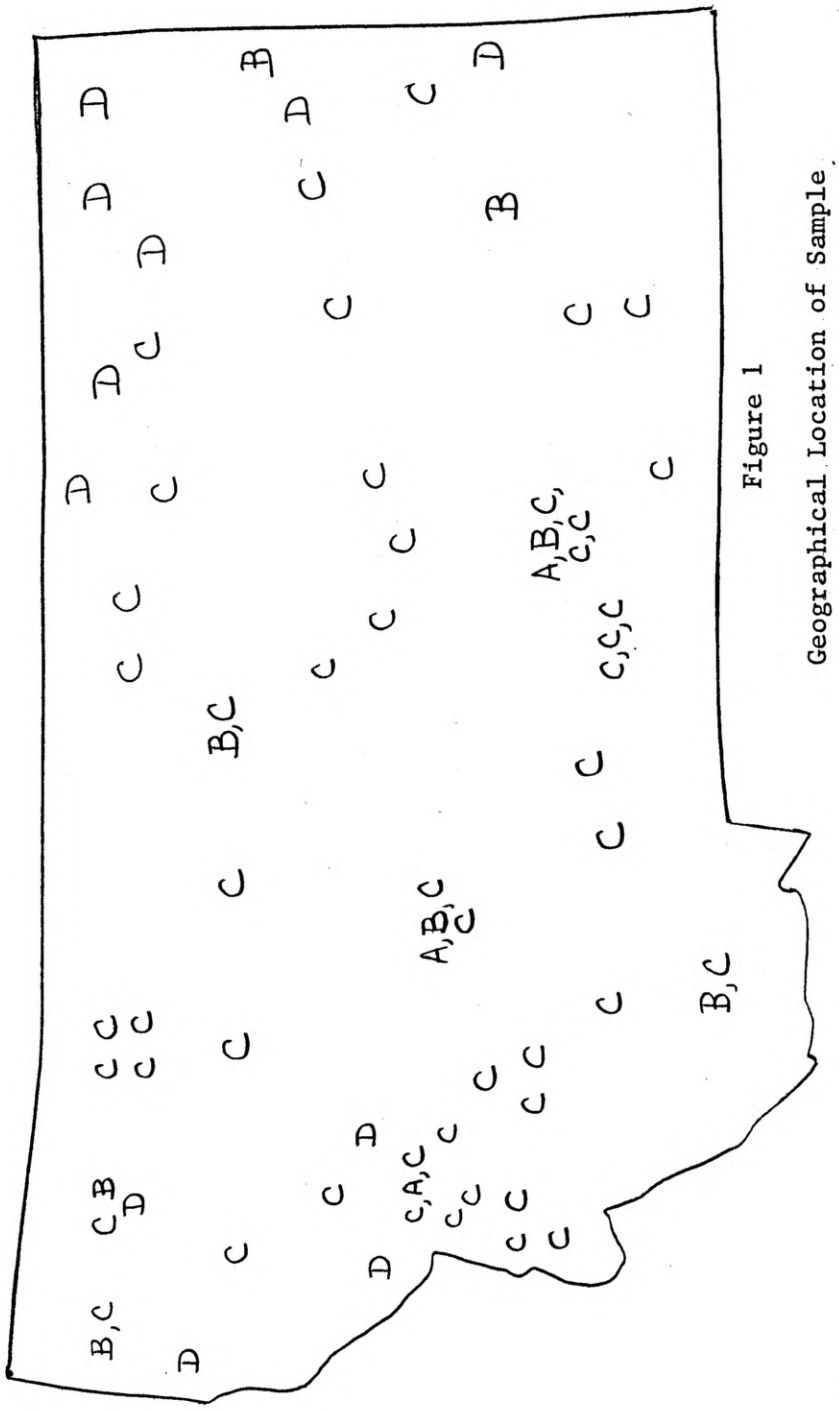


Figure 1

Geographical Location of Sample

situation is evidenced by the poorer response from elementary school principals.

Table 2

Response to Mailed Instrument
by Arbitrary Class

Instrument	Arbitrary Class				
	A	B	C	D	Total
Mailed	3	8	48	11	70
Responded	3	8	37	7	55
No Response	0	0	11	4	15

Table 3

Response to Mailed Instrument
by Type of School

Instrument	Type of School				
	Vo-Tech	High School	Junior High School	Elementary	Total
Mailed	2	17	3	48	70
Responded	2*	13	3	37	55
No Response	0	4	0	11	15

* One response not complete. This response not tallied.

Extent of the Utilization of Team Teaching

The mailed instrument provided for an immediate determination of the extent of the utilization of team teaching. Each respondent returned the applicable colored questionnaire (yellow for yes; green for no) depending on whether team teaching was presently utilized in the respondent's school. Table 4 depicts the team teaching utilization rate in the sample schools.

Table 4

Team Teaching Utilization
Rate by Arbitrary Class

Utilization of Team Teaching	Arbitrary Class				
	A	B	C	D	Total Schools
Per Cent Presently Use	100	57.1	32.4	-0-	35.2
Per Cent Do NOT Presently Use	-0-	42.9	67.6	100	64.8

The reader will note that there is a relationship between the size of the school and the positive utilization rate. The larger schools obviously possess the necessary prerequisites for even considering the method.

To further dramatize this point, Figure 2 shows the class of schools and the percentage that each class composes of the total in

both the positive and negative utilization question.

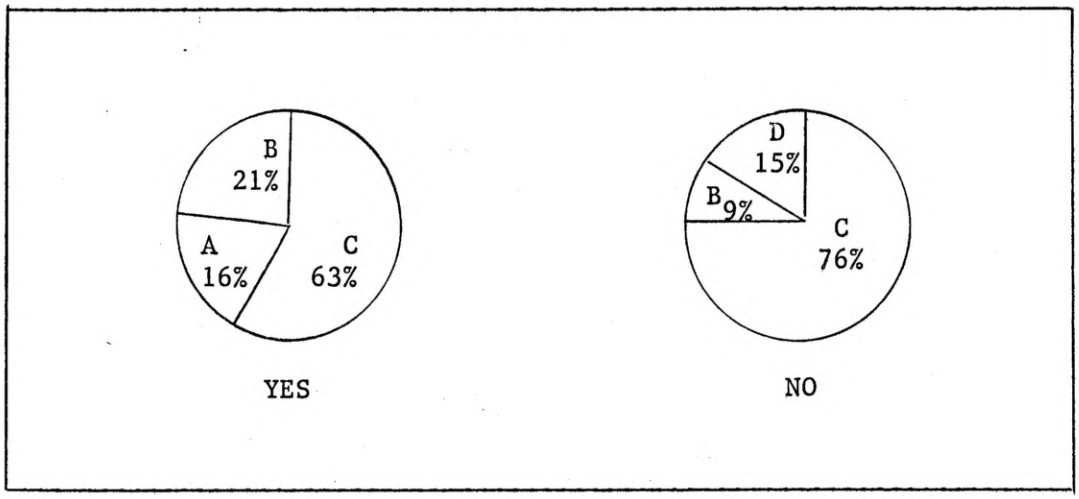


Figure 2

Does the Respondent's School Presently Utilize Team Teaching?

The total percentage of utilization of team teaching in Montana (35.2 per cent) falls short of the national average of 41 per cent (Carvelti, 1967). The investigator believes that the districting of schools whereby numerous small schools in rural environments exist is the main reason for the present utilization rate.

Analysis of Negative Response

The respondents reported that 64.8 per cent did not presently utilize the team teaching method. Of these, 91.4 per cent had never used the method. When asked if team teaching had ever been considered

by the administration of these schools (91 per cent had less than 500 students enrolled), the response revealed that 53.1 per cent had and 46.9 per cent had not. Therefore, there appears to have been wide interest in the method.

The obvious question to ask was, "What was the major reason for rejecting the method?" The schools which had rejected team teaching reported that the three main reasons for the rejection were the lack of proper facilities, the absense of a properly trained staff, and a general lack of interest. Table 5 portrays a complete distribution of answers to the question.

Table 5

Reasons for Failure to Adopt Team Teaching

Major Reason for Not Adopting Team Teaching	Per Cent
Lack of facilities	33
Staff not properly trained	25
General lack of interest	21
School not large enough	8
Too costly	5
Other	8

Three schools had adopted team teaching and subsequently abandoned the method. One school used the method for only one year, and the other two schools abandoned team teaching after three years. All three schools reported that the lack of a properly trained staff was the reason for the abandonment. These schools represent 5.5 per cent of the total respondents. This figure is slightly above the national average of 4.3 per cent reported by Carvelti (1967).

Analysis of Positive Response

The respondents reported that 35.2 per cent of the sample schools presently utilize the team teaching method. The average number of years (mean) that these schools had used the method was 2.9. Table 6 shows a break down of the number of school years that the method has been employed.

Table 6

Longevity of Team Teaching

Number of Years Team Teaching Used	Per Cent of Total Positive Response
Less than 1 year	5.3
One year to less than 3 years	57.9
Three years to less than 5 years	26.3
Five years to less than 7 years	10.5

The adoption of team teaching in Montana was slow. The method was first introduced in the Nation in 1958. However, schools in Montana have only been using team teaching for an average of approximately three years, reflecting adoption in 1969 - eleven years following inception.

Approaches to Team Teaching

The respondents did not have one single approach to team teaching which was preferred. Table 7 shows the approaches being employed.

Table 7

Approaches to Team Teaching
Being Used in Montana

Approach to Team Teaching	Number of Schools	Per Cent
a. Single-discipline team	7	36.8
b. Interdisciplinary block of time team	7	36.8
c. School-within-school team	1	5.3
d. Combination of a & b	2	10.5
e. Combination of a & c	1	5.3
f. Open school	1	5.3

Also, no single basic organization of the teaching teams was delineated as can be seen in Table 8.

Table 8

Organization of Teaching Teams

Organization of Teams	Number of Schools	Per Cent
Team Leader + certified teacher (s)	7	36.8
Team Leader + certified teacher (s) + teacher aide (s)	4	21.1
Team Leader + certified teacher (s) + teacher aide (s) as need arises	6	31.5
Open School	1	5.3
Certified teachers with no leader	1	5.3

Team Teaching Disciplines

Four subjects stand out as receptive to the team teaching method. In the order of the number of responses, the subjects are English, Social Studies, Mathematics, and Art. A complete listing of all subjects in which respondents reported team teaching is in Table 9.

Evaluation of the Method

Figures 3 and 4 depict the major advantages and disadvantages reported by respondents presently employing team teaching.

Table 9

Disciplines in Which Team Teaching is Conducted

Subject	Number of Schools	Per Cent	Subject	Number of Schools	Per Cent
English	14	17.1	Physical Sciences	6	7.3
Social Studies	13	15.9	Languages	5	6.1
Mathematics	12	14.6	Biological Sci.	4	4.9
Art	11	13.4	Industrial Arts	1	1.2
Physical Educ.	8	9.8	Home Economics	1	1.2
Music	6	7.3	Business Educ.	1	1.2

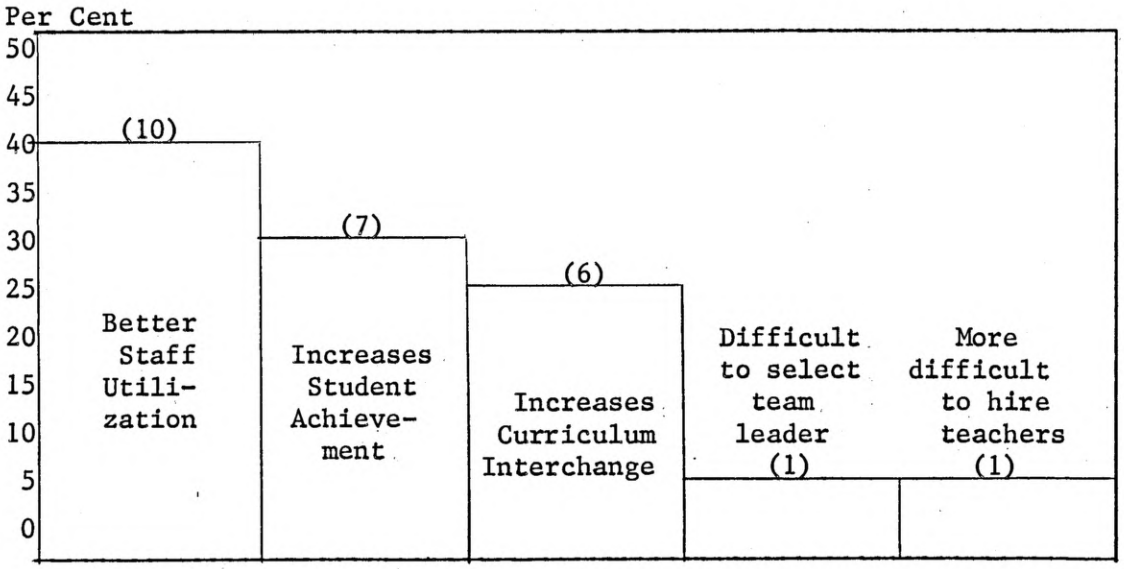


Figure 3

Team Teaching Advantages

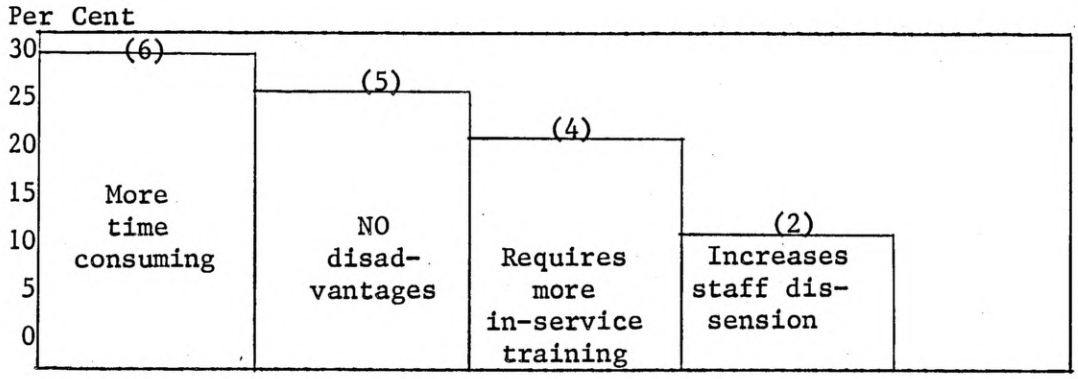


Figure 4

Team Teaching Disadvantages

The respondents were asked to choose only one response; however, several chose more than one advantage and/or disadvantage. None of the respondents believed that the method has no advantages. Satisfaction appeared to be universal. Also, none judged that clerical duties for teachers was decreased by employing team teaching. This coincides with the response indicating that the method is more time consuming for teachers.

Summary

The findings of this study have been presented in a descriptive manner.

The extent of the utilization of team teaching in Montana was 35.2 per cent, 5.8 per cent below the national average. Schools which

had adopted the method and subsequently discontinued utilization comprised 5.5 per cent of the total schools sampled.

The schools which did not use team teaching rejected the method because of either lack of proper facilities, a staff of improperly trained teachers or a general lack of interest.

The average number of years of team teaching among schools which employ the method was 2.9. None of the different approaches to team teaching was preferred by the respondents, and a variety of organization of teams was employed.

English, Social Studies, Mathematics and Art led all other disciplines in being conducive to using the method.

The respondents believed that the greatest advantage of team teaching is the resultant better utilization of the teaching staff. The major disadvantage was the additional amount of preparation time needed by teachers.

Chapter 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This study was designed to investigate an innovative teaching method, team teaching, in the public schools of the State of Montana. The study was generated by the necessity for continual evaluation of any classroom method which has purported to increase educational prowess and has gained acceptance of a degree from educators.

The questions concerning the status of team teaching in Montana were designed to provide information for core decisions by educators and lay education boards in their evaluations and deliberations concerning the applicability of the method to the school district which they serve.

Administrators (principals) of 70 public schools chosen in a proportionally stratified random sample provided the answers to a mailed questionnaire outlining the status and opinions toward team teaching. The data gathered was used for inferences about team teaching within all public schools of Montana.

Summary

The historical review of related literature revealed the purposes for which team teaching method was conceived, to wit, the acute shortage of teachers, drastic curriculum changes (broadening), and the increased student enrollment which strained the physical facilities and the stu-

dent/teacher classroom ratio to the bursting point.

The early studies of the need and desirability of the method, circa 1961, were designed to provide an evaluation whereby educators could properly "vote" upon the worthiness of team teaching. However, the empirical evidence left much to be desired in the opinion of this investigator. Therefore, the method survived because of a lack of any contrary evidence as to the success of utilization. The method obviously found general approval, especially among teaching staffs. The main reason for the acceptance of team teaching seems to have been the influential approval and promotion by the originator of the plan, J. Lloyd Trump.

The more recent literature concentrates on the effect that team teaching has had on the different facets of academia. Cunningham (1964) called for team members to possess personal traits and backgrounds which epitomize the highest standards of the teaching profession. Unfortunately, not all teachers do nor can withstand this critical appraisal.

The North Central Association of Colleges and Secondary Schools provided the latest study of the extent of the utilization of the method in the Nation (Carvelti, 1967). At that time, 41 per cent of the Association's members were utilizing some form of team teaching. It was interesting to note that Rhode Island had the highest utilization rate in the Nation and South Dakota possessed the lowest.

Other investigators stated that a period of crisis had been reached regarding the utilization of team teaching. They called for thorough nation-wide research into the status and applicability of the method, instead of the tendency of educators to align with the pro forces of team teaching or be adamantly opposed to the method.

The procedures chosen for this study were concomitant to ascertaining the status of team teaching in Montana with certain limitations and delimitations. The population for the study consisted of all public schools in the State which possessed the teaching staff and student enrollment large enough to consider the team teaching method. Questionnaires were mailed to principals of a proportionally stratified random sample of the population. The sample was stratified according to an arbitrary class assignment based upon student enrollment. The sample represented 13.4 per cent of the population. The answers provided by the sample principals provide the basis for the conclusions regarding team teaching in Montana stated below.

Conclusions

There appears to be a general interest in team teaching among Montana school administrators as evidenced by the 77 per cent response rate to the mailed questionnaires. In addition, 54 per cent of the respondents expressed a desire for a copy of the study.

The utilization rate of the method in Montana is 35 per cent.

This rate is slightly below the national average in 1967; however, the investigator believes that school districting and the rural configuration of the State underlie the lower rate. The evidence clearly indicates that schools possessing a larger student enrollment (500 or more) utilize team teaching more extensively than do smaller schools.

Principals of schools which do not presently use the team teaching method pointed out that the lack of proper facilities and a properly trained teaching staff were the main reasons for not adopting the method.

Public schools in Montana have used team teaching for an average of 2.9 years. Considering that the method was first introduced in the United States in 1958, Montana schools have evidently been most cautious in endorsing team teaching.

The local conditions dictate which approach to the method is used. No one approach was prevalent. The same is true for the basic organization of the teaching teams.

Team teaching is used for teaching all subjects offered with the exception of Agriculture. However, the subjects of English, Social Studies, Mathematics and Art appear to be the most conducive to teaching teams.

The evaluation of the method by the respondents was peculiarly staff-oriented. On the positive side, better staff utilization was

given as the main advantage of team teaching. The fact that the method is more time consuming for the teacher was the main disadvantage. It was disappointing to learn that some educators could not see any disadvantages to team teaching. The investigator believes that any method surely has disadvantages regardless of how minor they may seem.

Finally, one statement about team teaching in Montana is appropriate -- Team teaching as an instructional method is a prospering and viable tool in the public schools of Montana. The investigator does not question the extent, merely the intent.

Recommendations

Based upon this initial study of team teaching in Montana, the investigator recommends the following areas be researched.

1. A survey of students' opinions of team teaching in those schools which utilize the method.
2. A study to determine the degree of any change in the level of student achievement coincident with team teaching.
3. A replication of this study to include the total population of Montana schools, both public and private.
4. A study of the relationship of other innovative teaching practices, such as differentiated staffing, modular scheduling, open classrooms, etc., to team teaching.
5. A replication of this study utilizing classroom teachers as the spokesmen for Montana public schools.

As stated earlier, the investigator believes that any teaching method must be open to constant scrutiny and investigation of the worthiness of continuance or adoption. This study is only a beginning.

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APPENDIX A

April 21, 1972

J. Paul Brown, Principal
Louisville High School
Louisville, Montana 59011

Dear Mr. Brown:

The College of Education of Montana State University is sponsoring research to evaluate the extent of the utilization of team teaching and the approaches to the team teaching method employed in the public schools of Montana.

The data provided by a representative sample of school principals will provide the basis for our study to assist Montana's educators. Whether your school utilizes team teaching or not, your response is important.

For your convenience, an instruction sheet has been included. By following these instructions, it will take you approximately 20 minutes to complete the data instrument. The responses you provide will be confidential. Please do not sign your name or indicate the name of your school on the instrument. Please return the instrument in the enclosed stamped and addressed envelope not later then May 5, 1972 to:

Mr. Edward H. Delap
Room 132, Reid Hall
Montana State University
Bozeman, Montana 59715

The letter (A,B,C or D) appearing in the upper right-hand corner of the instrument denotes an arbitrary class based on student enrollment which has been assigned by the researcher and in no manner will enable anyone to identify the school for which the instrument is completed.

Our study is available upon your request. Check the item at the end of the questionnaire and print your name if you desire to receive a copy.

Your cooperation is most important to our study and we shall be grateful for your response.

Sincerely yours,

Edward H Delap

Edward H. Delap

APPENDIX B

INSTRUCTIONS

The purpose of this study is to examine the role of team teaching in the public schools of Montana. The research is sponsored by the College of Education, Montana State University. We are grateful for your cooperation in responding to this questionnaire. Please follow the steps below. It will take you approximately 20 minutes to complete the instrument.

---

1. If your school is presently utilizing the team teaching method, complete the yellow questionnaire ONLY.

2. If your school does not presently utilize the team teaching method, complete the green questionnaire ONLY.

3. If you are the Principal of more than one school in your district, please confine your answers to the school named in the cover letter only.

4. For the purposes of this study the following definitions apply to team teaching. Please base your responses on these common definitions.

   a. Team Teaching - An arrangement whereby two or more teachers, with or without teacher aides, cooperatively plan, instruct and evaluate one or more class groups in an appropriate instructional space and given length of time, so as to take advantage of the special competencies of the team members. (Singer, 1965).

   b. Single-discipline Team - Two or more teachers from the same department, teaming together to instruct a common set of students. Teaching periods may be scheduled side by side or consecutively. (Singer, 1965).

   c. Interdisciplinary Block of Time Team - Teachers from different disciplines given a common block of time to use as the team sees fit for the instruction of a common set of students in classes of flexible size. (Singer, 1965).

d. School-Within-School Team - Teachers from all disciplines responsible for the instruction of the same body of students over an extended period of time, usually two to four years. (Singer, 1965).

e. Team Leader - A full-time certified teacher who coordinates and directs the teaching team's efforts.

f. Teacher Aide - An individual (non-certified) who performs all of the clerical work inherent in classroom teaching.

5. Last Check.

a. Return the completed questionnaire in the stamped and addressed envelope not later than May 5, 1972.

b. If you desire a copy of the study, please check the last item on your questionnaire.

c. Please do not sign your name or the name of your school on the questionnaire. Your answers are confidential.

THANK YOU

APPENDIX C

C

Please respond to the following questions ONLY if your school is presently utilizing the team teaching method.

1. How many school years has team teaching been utilized in your your school?

_____ Less than one year
_____ One year to less than three years
_____ Three years to less than five years
_____ Five years to less than seven years
_____ Seven years to less than nine years
_____ Nine years or more

2. Which approach to the team teaching method does your school employ (see definitions on the Instruction Sheet)?

_____ Single-discipline team
_____ Interdisciplinary block of time team
_____ School-within-school team
_____ Combination of two or more of the above (please specify)
_____
_____
_____ Other (please specify) _____
_____

3. How are your teaching teams basically organized?

_____ Team Leader + one or more full-time certified teachers
_____ Team Leader + one or more full-time certified teachers + one or more teacher aides
_____ Team Leader + one or more full-time certified teachers assisted by a teacher aide (s) as the need arises
_____ Other (please specify)_____
_____

4. Please indicate ALL of the disciplines in which you utilize the team teaching method.

_____ Mathematice
_____ Languages
_____ Industrial Arts
_____ Home Economics
_____ Business Education
_____ Art
_____ English
_____ Music
_____ Physical Education
_____ Agriculture
_____ Biological Science
_____ Physical Science
_____ Social Studies
_____ Other (please specify)
_____

5. What do you consider to be the major advantage of team teaching in your school? (Please indicate ONLY ONE.)

_____ Increases staff morale
_____ More effective utilization of staff competencies
_____ Increases student achievement
_____ Decreases clerical duties of teachers
_____ Allows for cross-pollination of ideas in curriculum
_____ Has no advantages over traditional teaching methods
_____ Other (please specify)_____

6. What do you consider to be the major disadvantage of team teaching in your school? (Please indicate ONLY ONE.)

_____ More costly to administer
_____ More time-consuming for staff
_____ Selection of competent team leaders
_____ Requires more extensive in-service training program
_____ Causes staff dissension
_____ Has no disadvantages
_____ Other (please specify)_____

7. Do you desire a copy of this study?

_____ Yes
_____ No

APPENDIX D

C

Please answer the following questions ONLY if your school is not presently utilizing the team teaching method.

1. Has team teaching ever been utilized in your school?

_____ Yes (please answer questions 2, 3 and 6 ONLY)
_____ No (please answer questions 4, 5 and 6 ONLY)

2. If yes, how many school years was the team teaching method tried, prior to its discontinuance?

_____ Less than one year
_____ One to less than two years
_____ Two to less than three years
_____ Three to less than five years
_____ Five years or more

3. If yes, what was the major reason for discontinuing team teaching? (Please indicate ONLY ONE.)

_____ Too costly
_____ Non-effective for learning by students
_____ Staff disinterest or discontent
_____ Administration disinterest or discontent
_____ School Board or public discontent
_____ Improper facilities
_____ Other (please specify)_____

4. To your knowledge, has the administration of your school ever considered the establishment of the team teaching method in your school?

_____ Yes (please answer question 5)
_____ No

5. If yes, what was the major determinant for not utilizing team teaching? (Please indicate ONLY ONE.)

_____ Lack of proper facilities
_____ Staff not properly trained
_____ Too costly to install
_____ General lack of interest
_____ School not considered large enough
_____ Other (please specify)_____

6. Do you desire a copy of this study?

_____ Yes
_____ No