

Central Washington University ScholarWorks@CWU

All Master's Theses


Master's Theses

1969

A Survey of the Effectiveness of the Various Sizes of Elementary School Teaching Teams in the Puget Sound Area

Norman L. Standley
Central Washington University

Follow this and additional works at: <https://digitalcommons.cwu.edu/etd>

 Part of the [Educational Assessment, Evaluation, and Research Commons](#), [Educational Methods Commons](#), and the [Elementary Education and Teaching Commons](#)

Recommended Citation

Standley, Norman L., "A Survey of the Effectiveness of the Various Sizes of Elementary School Teaching Teams in the Puget Sound Area" (1969). *All Master's Theses*. 1047.
<https://digitalcommons.cwu.edu/etd/1047>

This Thesis is brought to you for free and open access by the Master's Theses at ScholarWorks@CWU. It has been accepted for inclusion in All Master's Theses by an authorized administrator of ScholarWorks@CWU. For more information, please contact pingfu@cwu.edu.

A SURVEY OF THE EFFECTIVENESS OF THE VARIOUS SIZES OF
ELEMENTARY SCHOOL TEACHING TEAMS IN THE
PUGET SOUND AREA

A Thesis
Presented to
the Graduate Faculty
Central Washington State College

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

by
Norman L. Standley
April, 1969

LD
5771-3
S785

SPECIAL
COLLECTION

173070

Library
Central Washington
State College
Ellensburg, Washington

APPROVED FOR THE GRADUATE FACULTY

William G. Gaskell, COMMITTEE CHAIRMAN

Lloyd M. Gabriel

Donald G. Goetschius

ACKNOWLEDGEMENTS

The writer wishes to express his thanks to Dr. William Gaskell, committee chairman; Dr. Donald Goetschius and Dr. Lloyd Gabriel, committee members; who so generously contributed their time and thoughts to this study.

Acknowledgement is extended to the members of the teaching teams for their assistance in making this study possible.

TABLE OF CONTENTS

| CHAPTER | PAGE |
|---------------------------------------------------------|------|
| I. THE PROBLEM AND DEFINITIONS OF TERMS USED | 1 |
| The Purpose of the Study | 2 |
| The Need for the Study | 3 |
| Method of Research | 3 |
| Limitations of the Study | 3 |
| Definition of Terms | 4 |
| Team teaching | 4 |
| Size | 4 |
| Effectiveness | 4 |
| Teacher competency | 4 |
| Professional growth | 5 |
| Student growth and development | 5 |
| Team interaction | 5 |
| Behavioral objectives | 5 |
| II. REVIEW OF LITERATURE AND RELATED RESEARCH | 6 |
| Background of Team Teaching | 6 |
| Advantages of Team Teaching | 10 |
| Validity of Team Teaching | 13 |
| Origin of Team | 15 |
| Group Interaction | 16 |
| Instructional Objectives | 18 |
| Pupil Growth and Development | 19 |

| CHAPTER | PAGE |
|-------------------------------------------------------------------------------------------|------|
| III. RESULTS OF THE STUDY | 22 |
| Statistical Methods | 22 |
| Simple chi-square | 22 |
| Complex chi-square | 22 |
| Point-value correlation | 22 |
| Percentile ranking | 22 |
| Contingency coefficient (C) | 23 |
| Questionnaire Items | 23 |
| IV. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS | 41 |
| Summary | 41 |
| Professional growth of teachers | 41 |
| Student growth and development | 43 |
| Additional comments | 46 |
| Conclusions | 50 |
| Recommendations | 51 |
| BIBLIOGRAPHY | 52 |
| APPENDIX A: Questionnaire | 56 |
| APPENDIX B: Contrasting Principles Underlying Two Theories of Class Grouping | 62 |
| APPENDIX C: Population Used for the Study | 64 |
| APPENDIX D: Other References | 67 |

LIST OF TABLES

| TABLE | PAGE |
|------------------------------------------------------|------|
| I. General Information | 23 |
| II. Subject Areas of Growth Per Teacher Per Team . . | 24 |
| III. Instructional Methods | 25 |
| IV. Increasing Staff | 26 |
| V. Student Academic Growth | 27 |
| VI. Student Development | 28 |
| VII. Origin of Team | 30 |
| VIII. Formation of Team | 31 |
| IX. Planning and Preparation Time | 32 |
| X. Subject Area Responsibility | 33 |
| XI. Group Interaction | 34 |
| XII. Group Interaction | 35 |
| XIII. Group Interaction | 36 |
| XIV. Instructional Goals | 38 |
| XV. Instructional Goals | 39 |
| XVI. Team Size Preference | 40 |
| XVII. Instructional Methods | 42 |
| XVIII. Formation of Team | 43 |
| XIX. Student Academic Growth | 44 |
| XX. Instructional Goals | 45 |
| XXI. Leadership Responsibilities | 46 |
| XXII. Overall Team Rankings | 47 |

| TABLE | PAGE |
|-----------------------------------------------------------|------|
| XXIII. Team Size Preference | 48 |
| XXIV. Effectiveness-Team Preference Correlation | 49 |

CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

When considering what is involved in presenting an effective instructional program to one's pupils, attention needs to be focused upon two assumptions: (1) The effective teacher knows his learners. (2) The effective teacher knows the content of the subject areas in which he teaches, and the processes basic to it (11:152). Self-contained classrooms lend themselves quite well to the first assumption, but often are weak in terms of the second assumption. Departmentalization is strong in the area of assumption number two, but not in the area of the first assumption (11:152). Realization of the need for organizational structure which would encompass both of the above assumptions led to one of the most interesting and potentially significant developments in American education in recent years (1:71). Team teaching programs have sprung up throughout the United States with varying degrees of success. What we, as educators, need to do now is start forming some generalizations about successful team teaching programs, so that future programs can be established using these generalizations as guidelines. This thesis will investigate one of the aspects of evaluating team teaching programs.

I. THE PURPOSE OF THE STUDY

The purpose of the study is to discover and analyze the various sizes of teaching teams, on the elementary school level, to determine their relative effectiveness with respect to the following, as perceived by teachers:

1. What team size lends itself to the greatest number of individual teacher competencies?
2. What team size contributes the most to the professional growth of teachers?
3. What team size offers the most to the student's growth and development?

Along with the above thoughts, the writer would like to submit the following hypotheses:

1. As the size of a teaching team approaches a total membership of six professional instructors, correspondingly, a growth will occur in the following areas:
 - a. Total number of teacher competencies within the team
 - b. Professional growth of the individual team members
 - c. Student growth and development
2. The effectiveness of a team is in direct relationship to:
 - a. The method by which the team was formed (16:72)
 - b. The interaction within the team (16:72)
 - c. The team's awareness of behavioral objectives for students (6:27)
 - d. The assignment of roles according to the skills of each team member (16:69-70)

II. THE NEED FOR THE STUDY

Since the late 1950's when the term "team teaching" was first used to describe a specific organizational structure (1:71), several variations of the original and many new forms have been tried with varying degrees of success. Although each elementary school is unique in its own right and requires an instructional program tailored to fit its needs, perhaps the number of failures can be limited if this survey could expose some guidelines for consideration by educators when they set about the task of improving the instructional program.

III. METHOD OF RESEARCH

With the use of a recent survey and personal contacts, Dr. William Gaskell established a list of elementary school teaching teams in the Puget Sound Area. From this list the writer, with the approval of his thesis committee members, selected the population for the study. Then in February of 1969, the survey questionnaires were sent to all the members of the various teams selected to be a part of the study.

IV. LIMITATIONS OF THE STUDY

The study was limited to elementary school teaching teams in the Puget Sound area. From the list of teaching

teams provided by Dr. Gaskell, a population which is representative of the Puget Sound area was selected, including both geographic and population factors. Also, the study of team effectiveness was limited in the sense that the variables being investigated included only:

1. Size of teaching team
2. The interaction within the team
3. The team's awareness of, and planning for attainment of, behavioral objectives

V. DEFINITION OF TERMS

Team teaching. A formal type of cooperative staff organization in which a group of teachers accepts the responsibility for planning, carrying out, and evaluating an educational program, or some major portion of a program, for an aggregate of pupils (1:83).

Size. Indicating numbers, such as three, four, five, etc.

Effectiveness. Producing a decided, decisive, or desired effect.

Teacher competency. Particular skills and/or knowledge resulting from experience and professional preparation.

Professional Growth. Refers to a teacher's progress in the areas of subject matter knowledge and/or instructional methodology.

Student growth and development. Refers to a student's progress in one, or more, of the following areas:

1. Emotional Growth - degree of security, self-concept, adjustment to peers
2. Rate of Learning - receptiveness, attitude, readiness, learning skills, ability to follow directions
3. Mental Growth - acquisition of knowledge, interpretation of new facts, application of concepts

Team interaction. The exchanging of ideas and suggestions among the various members of the teaching team.

Behavioral objectives. Explicit formulations of the ways in which students are expected to be changed by the educative process. That is, the ways in which they will change in their feelings, and their actions.

CHAPTER II

REVIEW OF LITERATURE AND RELATED RESEARCH

The search to improve the quality of education has caused educators to develop new methods of organization for instructional purposes.

There are numerous pilot studies and experimental projects being carried out today, one of which, team teaching, is currently attracting widespread interest.

I. BACKGROUND OF TEAM TEACHING

Shaplin brings up the following points in a discussion of team teaching:

. . . In an explosive era of American education, team teaching has been merely one element in a broad pattern of innovations and changes, all aimed at improving the quality of instruction. In this pattern, certain major directions are clear: a search for ways to create for teachers attractive new positions with greater status, rewards, and responsibility; a search for ways to improve the utilization of the present teaching staff and facilities; a search for ways to revise the school curriculum in almost all areas; a search for ways to create smaller human organizations within the large-size structures which have become characteristic of our schools; a search for ways to change existing school organization to provide for more efficient instruction in certain areas and for continuous pupil progress in others; and a search for ways to apply technological innovations in instruction in schools . . . (20:54-55)

Team teaching is basically a method of organizing groups of students for instruction so they will receive the benefit of instruction from the most capable teacher in a

particular field and will receive the benefit of increased intellectual stimulation by contact with several personalities.

Judson Shaplin (20:1) states, "Team Teaching . . . has rapidly assumed the dimensions of a major educational movement . . ."

Team teaching, with regrouping and large-group lectures, originated several years ago as an idea in the mind of Francis Keppel, then Dean of the Harvard Graduate School of Education (20:19).

A small group of faculty members in the Harvard Graduate School of Education considered some extremely tentative proposals for school reorganization that had been suggested by Dean Keppel. The faculty members found that the proposals brought out some exciting theoretical concepts and a proposed new structure of school organization. The faculty group further developed and refined Dean Keppel's proposals to the point of considering plans for testing the new arrangements.

Early in 1957, the Fund for the Advancement of Education invited Harvard to work with three nearby public school systems to develop new techniques in education (20:51).

Harvard agreed, and with a generous grant from the Fund, established the School and University Program for Research and Development. Known as SUPRAD, this organization joined the school systems of Concord, Lexington, and Newton, Massachusetts, with Harvard's Graduate School of Education.

Dean Keppel then organized and outlined the structure of the teaching teams as they were later to be formed at Franklin School.

Perhaps the best known of all team teaching projects is the one begun at Franklin School in Lexington, Massachusetts, in 1957-1958. It was probably the first example of an entire school being organized into teams (20:56).

Team teaching started with a few pilot projects in 1956 and 1957 and the movement has now spread to several hundred communities throughout the country and plans now under development suggest increasingly rapid growth.

In the forward of the book, Team Teaching, Francis Keppel makes the following statements:

. . . the national commitment to exploring the possibilities of new ways of organizing schools is already substantial. Because of its actual and potential relationship to other reform movements in education, it is possible that team teaching will stand the test of time rather than slide into the footnotes of educational history. James B. Conant, who is not easily swayed by current fashion in education, has written the following about elementary education:

"There is without a doubt a ferment among educators with respect to the conduct of elementary education. The long-standing notion of a self-contained classroom of 30 pupils taught by one teacher is giving way to alternative proposals. One of these proposals is team teaching, which, as we have seen, has advantages in orienting new teachers.

If the idea of team teaching becomes widely accepted--and many elementary school principals predict that it will--there will be places in classrooms for a wide range of instructional talent. How such schemes will work out over the years in practice remains to be seen, but team teaching seems to many the answer to the question of how

to attract more of the ablest college students into elementary school teaching. The possibility of a teacher's having an opportunity to take advantage of her special field of interest is exciting" (20:ix).

There is no doubt that the concept of team teaching is an interesting one. Team teaching exists in many forms and for a variety of reasons and it is evident that there is considerable flexibility in most team teaching arrangements. Each school system has its own specific reasons for undertaking team teaching and each must work out a unique solution for its own best interest. Arnold states:

The team idea has distinct possibilities as a very effective means of meeting some of the problems facing schools today, but the basic purpose should be clearly defined and thoroughly understood before a school launches such a program. To rush into it without thorough preparation, particularly of the teachers involved, is to invite chaos. Team teaching is a means designed to attain certain goals, and these goals must be understood and accepted by those involved (4:20).

A variety of reasons are cited for developing new staff organization plans such as team teaching. A few of the more common ones are:

1. Discovering and demonstrating new and more effective ways of utilizing teacher competencies
2. Improvement of the quality of instruction
3. Establishment of a hierarchy of roles in teaching and thereby providing more attractive career opportunities for superior teachers.

II. ADVANTAGES OF TEAM TEACHING

In speaking of the organization of teaching teams at Franklin School in Lexington, Massachusetts, R. H. Anderson states:

Implicit in all efforts to create more attractive conditions (economic, social and professional) for teachers was the belief that these would lead to better instruction for children, through more effective performance of the teachers. It was hoped that the team organization would permit more flexible and appropriate grouping arrangements to meet individual interests. It was believed that children would be stimulated by association with larger numbers of children and with more than one teacher. It was expected that teachers would find more efficient and interesting ways of presenting lessons through having larger blocks of planning time and through doing more group planning. It was thought that the pooling of teachers' ideas and observations would lead not only to stronger teaching but to better pupil adjustment and more adequate pupil guidance (2:72-73).

Teachers on a team must be willing to share responsibility and willing to step aside at times when another team member has greater competence in a given area.

Teachers are provided with time to plan cooperatively, exchange ideas, analyze situations and evaluate their program.

Hoopes points out:

One of the unique features of team teaching is that teachers can plan together, see each other teach, talk together, analyze what happened, and profit from this exchange. Teachers are brought into a close relationship as they share the responsibility for teaching the same group of students; consequently, the teacher must learn to work cooperatively with other teachers (14:177).

Team teaching in the elementary school makes it possible to divide students into different ability groups for each

separate subject and to develop more flexible groupings that can change as children's needs change.

Extensive exploration of a wide variety of criteria for combining students, so that each student may obtain maximum benefit from instruction may be possible in a team teaching program. Arthur Morse states:

Ability grouping in a conventional elementary school divides youngsters in gifted, average or slow homeroom units and assumes that this pattern holds true in all subjects. Team teaching recognizes that ability in language arts may not insure equal ability in number concepts. At the Franklin School children and their parents are not as conscious of the ability "niche" because the students find themselves in different company in each class (18:14).

Another possible advantage of team teaching is stated by Judson Shaplin:

Team teaching also provides a way of organizing for the improvement of supervision in the schools. . . . Within teaching teams it becomes possible to assign greater responsibility for the curriculum and for the supervision of other teachers to those teachers who are more knowledgeable, more expert, and more willing and able to accept leadership. . . . (20:19)

Maurie Hillson offers the following list of possible advantages for those participating in team teaching:

1. Superior teachers will be able to exercise greater influence in the school and still remain in classroom teaching.
2. Team teaching facilitates grouping because the basic group is so large that small groups can easily be formed for almost any reason and there are enough really bright students to make advanced projects feasible.

3. Other teachers, during large group teaching periods, are freed for small group work, lesson planning, and parent-teacher conferences.
4. Pupils will spend more of their school time receiving instruction than when they are in self-contained classrooms.
5. There is more efficient use of space, materials, and equipment.
6. There is a greater exchanging of information and viewpoints on various problems.
7. Evaluation is the combined judgement of several teachers and thereby improves the process of pupil appraisal.
8. It furnishes an impetus to improve the curricula.
9. The beginning teacher is not isolated; he has supervision and help from experienced teachers.
10. During a member's illness, the others can fill the void with less loss of instructional time than when a substitute comes into a regular classroom and often merely serves as a "baby sitter".
11. The teacher often works harder on improving the instructional ability of the team (13:165-166).

A few more advantages suggested by Malcolm P. Douglass in his article "Team Teaching: Fundamental Change or Passing Fancy" are:

1. Practical and effective in-service education can occur through frequent team meetings.
2. There can be marked success in inducting new teachers into school systems by using interns as team teachers.
3. Improved guidance will result from the planned exchange of information about students and the atmosphere of fellowship within the team.

4. Through team leaders and team meetings, the identification and use of talented citizens and other educational resources of the community will become possible.
5. Because of their children's common experiences, there will be increased interest and involvement of parents.
6. The organization to develop sequences of content and intellectual process becomes more likely since teams can be kept together for more than one school year.
7. There is an improved climate of motivation because of the accent upon individual identity and team spirit.
8. There is greater student interest because of the varied groupings and presentations.
9. Teachers can be released from routine duties through the use of teacher aides.

Shaplin summarizes some current needs in education which possibly justify team teaching:

. . . What is needed within teaching is a method of suborganization, a grouping of teachers into small groups with common work objectives and shared working space, to which the teaching aides and clerical assistants can be attached in such a way that a sufficient amount of work will be absorbed efficiently from the teachers to allow a reduction in the teaching force. One of the principle justifications for team teaching may be that it answers this need (20:77).

Team teaching is not something that can be done easily. Only through thorough preparation, planning, coordination, and dedicated cooperation can it become effective.

III. VALIDITY OF TEAM TEACHING

Team teaching allows teachers to turn classrooms into open learning laboratories and limits or eliminates

unrealistic restrictions on exploration. School becomes a place where anything can be looked at, especially if it is of concern to the young who are a part of it (16:123).

Team teaching provides teachers and other members of the team with more freedom to work. Often in the traditionally organized school, teachers are closed in by time-killing routine that dulls the atmosphere of the classroom and reduces the opportunity for an exciting learning environment (16:124).

Team teaching will serve school systems that are organized and managed in a manner that reflects the multifaceted modern society, instead of systems steeped in the locus of ordinariness and operating on century old assumptions (16:124).

The use of team teaching, because of its cooperative nature, tends to reduce the possibility of inter-staff feud, since it is more difficult to become involved in petty bickering when the opportunity for cooperation and joint planning is such a worthy substitute (16:127).

The continuous in-service training programs that are a natural requirement of the teams who are involved in team teaching provide a natural environment for those teachers who want to be well informed. These programs are extremely effective when built around things that make sense and are programs that involve the teacher and not programs that are

done for him. This instrument highly supports validation and is considered particularly valuable if the principal supervises and other administrative people are also involved as co-equal participants in the in-service training programs. Materials to be dealt with will be built on instructional and learning problems that come out of the team teaching program themselves and will utilize student initiative, purpose exploration, and first-hand experience (16:124).

IV. ORIGIN OF TEAM

Harold Seaton Davis, (Ed.) D. Wayne State University, in his dissertation, "The Effect of Team Teaching on Teachers," concluded:

1. The need for introducing team teaching in a particular school should be apparent to teachers in that school before they are asked to change teaching methods.
2. In developing a team teaching program, administrators should join teachers in cooperative, democratic planning.
3. While developing a team teaching program, administrators should provide teachers with substantial and continuing assistance.

Eugene T. Kelly expresses an even stronger opinion as to the formation of a team teaching program. He states:

. . . I have not found a single successful program which was imposed from the top. To be successful, teachers must be involved in initial planning; they must have the prerogative of rejecting as well as accepting ideas. Administrators alone cannot decide what is to be done and how, and expect successful results (17:25).

V. GROUP INTERACTION

Effective communications are crucial in a team teaching situation. In any school situation communications are important, but in a team teaching situation the importance is highlighted (5:151). Beggs feels that opportunities must exist for frequent formal and informal communications. Failure to notify team members of a change in plans, procedures, or activities will have a deleterious effect on the overall team effort (5:152).

Eugene Kelly, in his article "Why Team Teaching Fails," says:

. . . programs are in trouble because some teachers will not change or find it difficult to work in the "give and take" of team teaching. . . . Just one uncooperative teacher can negate the effectiveness of the entire team (17:25).

Ultimately, the success or failure of any organizational pattern is dependent upon the amount of communication and the nature of the interaction within the teaching staff. Although physical facilities occasionally play a role, they seldom determine the eventual success of a program (19:84). Instead, positive outcomes are related to the extent to which teachers share their ideas, philosophies, and perceptions about children and their commonly achieved evaluation guidelines (19:84). In team teaching teacher compatibility which encourages communication is a uniquely important requirement.

A study in California's Mt. Diablo Unified School District clearly demonstrated a positive relationship between the important dimension of teacher communication and the effectiveness of team teaching as an organizational technique (19:84).

Teams reflecting flexibility in decision making processes seemed to see their responsibilities to the pupils in a different light. Their team planning sessions found them working out problems in terms of the unique requirements of individual pupils as well as the needs of the total unit. The result was increased individualization of instruction, varying size groups in keeping with the pupil's needs, greater utilization of teacher competencies, and a program in which schedules and the physical plant served the teams and the pupils. An openness to new ideas from within and without found these more creative teams approaching their work with greater experimentation and on-going evaluation than characterized the work of the rigid and departmentalized teams (19:85).

A high degree of interaction and effective communication within a team is not a natural attribute of the organizational pattern. It does not emerge accidentally, nor does it result from direct administrative intervention per se.

The results of the Mt. Diablo Unified School District's experimental program suggest the following ideas:

1. Staff relations with the principal should be characterized by a freedom to express ideas and feelings, to recommend changes and to plan cooperatively. Divergent thinking, constructive criticism, and constant self-evaluation should characterize the work of the various team members and should be encouraged.
2. Teacher competency is obviously vital to the team effort. However, a weaker teacher may grow through the help of supportive team members.
3. Successful team contributors are relatively free from dependency needs. They can and want to help their colleagues without possessing them. They do not need frequent reassurance and personal approval.
4. The effective team member is ego supportive of his partners by giving them recognition for their contributions.
5. Flexibility is reflected in an ability to make changes in program when student requirements appear to indicate that there is a need for revision.
6. Appropriate mental organization leads to a higher degree of reliability in fulfilling commitments.
7. Effective evaluation for instructional improvements is governed by an ability and interest in introspection. Satisfaction with the status quo obviously inhibits improvement (19:85-86).

VI. INSTRUCTIONAL OBJECTIVES

Robert F. Mager, in his book "Preparing Instructional Objectives," discusses three, rather important, reasons for having instructional objectives. First, without clearly defined goals, it is impossible to evaluate a course or program efficiently, and there is no sound basis for selecting

appropriate materials, content, or instructional methods. Second, instructional objectives make it possible to evaluate the degree to which the learner is able to perform in the desired manner. Tests are the mileposts along the road of learning and they are supposed to indicate to the teacher and the student the degree to which both have been successful in their achievement of the course objectives.

The third advantage of clearly defined objectives is that the student is provided with the means to evaluate his own progress at any place along the route of instruction and is able to organize his efforts into relevant activities. With clear objectives in view, the student knows which activities on his part are relevant to his success, and it is no longer necessary for him to "psych out" the instructor (21:3-4).

VII. PUPIL GROWTH AND DEVELOPMENT

Some extensive research on team teaching was done in the Jefferson County, Colorado, schools. Team teaching was used in seven schools, and the content areas included social studies, English, mathematics and science. At the conclusion of the three year study, the researchers reported the following observations:

1. In comparison to regular classes, as good or better results in pupil achievement were produced by modified schedules, various kinds of teams, and non-gradedness.

2. Pupil placement and use of material and personnel resources were accomplished more effectively in the experimental program than in regular situations.
3. Attitudes and morale of teachers and pupils in the experimental situations were more favorable than those of persons in regular classes.
4. The adaptability of teachers improved as a direct result of participating in the experimental program (22:89).

The Dundee School District, Greenwich, Connecticut, upon completion of a two-year study reported the following conclusions in the areas of student academic achievement, interests, attitudes, perceptions of the teacher's role and creative thinking:

1. Academic Achievement - There was no conclusive evidence provided by the study to refute previous findings that scores on standardized achievement tests are neither increased nor decreased by the team teaching plan of school organization. Although the Dundee mean scores were lower (relative to those of the control groups) during the first year of the study, the differences were offset during the second year by relatively greater gains on the part of the Dundee students. Thus, while the findings suggested that there may be differential effects, the nature of such effects is not clear on the basis of this study.
2. Attitudes, Interests and Perceptions of Teachers
 - a. The Dundee students tended to mention more frequently the social aspects of school life and give work-oriented responses less frequently than did the control students. This difference may have resulted directly from the larger number of peer contacts in the team teaching situation.

- b. There was some evidence, though inconclusive, that Dundee students had a somewhat broader range of interests than the control students, possibly because of acquaintance with additional and more diverse activities.
 - c. The Dundee students indicated that a greater proportion of their peer friendships were formed outside of the school, as compared with the control pupils. Also, a larger proportion of the Dundee students tended to prefer friends whom they had met away from the school.
 - d. The data suggested that there was a relatively greater emphasis on behavior in the Dundee school than in the control schools. Perhaps the greater emphasis on freedom and flexibility in the Dundee program required increased attention on behavior and discipline.
 - e. There was some evidence, also inconclusive, that Dundee pupils tended to depend more on peers (rather than adults) for assistance with immediate problems than did students in the control groups.
3. Creative Thinking - The Minnesota Tests of Creative Thinking (Abbreviated Form VII) yields scores on four aspects of creative thinking: fluency, flexibility, originality, and elaboration. Although differences between the Dundee and control schools were not entirely consistent, Dundee pupils generally had higher mean scores on fluency and flexibility than did the control pupils. This result seems to support the contention that the greater flexibility and increased peer and teacher contacts under team teaching tend to reduce rigidity and to encourage more creative and imaginative thought (15:297-298).

CHAPTER III

RESULTS OF THE STUDY

I. STATISTICAL METHODS

The statistical methods which were employed in the tabulation of the data are as follows.

Simple chi-square. For those items which call for frequency data which compares the effects of two variables and there are two groups on both variables.

Complex chi-square. For those items which call for frequency data comparing the effects of two or more variables and there are more than two groups per variable. The chi-square subscript value listed for the various items indicates the probability of a real difference existing. In order to find the probability that the obtained difference is due to chance alone, simply subtract the given subscript value from 1.00, e.g., $1.00 - .95 = .05$.

Point-value correlation. Responses to some of the items are in terms of subject areas. When applicable, a numerical value is provided for each of the various items and a mean score computed.

Percentile ranking. For ease of comparison, much of the data is expressed in terms of percentages.

Contingency coefficient (C). The contingency coefficient indicates the significance of the data. Significance increases as the (C) value increases from 0 towards 1.00.

II. QUESTIONNAIRE ITEMS

Prior to discussing the questionnaire items, the writer will statistically introduce the various sizes of teams involved in the study.

TABLE I
GENERAL INFORMATION

| | Team Size | | | | | |
|----------------------------|-----------|-------|-------|-------|-------|-------|
| | Two | Three | Four | Five | Six | Seven |
| Average age | 34.13 | 30.61 | 32.36 | 41.88 | 39.46 | 34.00 |
| Experience | 8.00 | 8.39 | 9.36 | 14.63 | 8.86 | 5.88 |
| Years in building | 3.53 | 3.03 | 4.21 | 4.63 | 4.57 | 3.63 |
| Years as team member | 1.07 | 1.16 | 1.36 | 1.88 | 1.79 | 1.00 |
| Pupils per teacher | 28.63 | 27.72 | 27.39 | 29.75 | 30.89 | 28.57 |
| Qtr. hrs. after BA (Ed) | 47.60 | 45.10 | 40.36 | 48.00 | 56.43 | 19.50 |
| Total M (Ed) | 2 | 0 | 1 | 6 | 1 | 0 |

Item #1 presents a comparison of the number of subject areas in which members of the various teams feel they have

progressed since incorporating team teaching. Note that team sizes four and seven show the greatest significance.

TABLE II
SUBJECT AREAS OF GROWTH PER TEACHER PER TEAM

| | Team Size | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------|------|------|------|-------|
| | Two | Three | Four | Five | Six | Seven |
| Average | 2.37 | 2.35 | 3.29 | 2.75 | 2.43 | 3.75 |
| Item #1: In which areas do you feel that you have made substantial professional growth, as compared to your degree of competency in each area prior to your team teaching experience? | | | | | | |

Although the following is significant only at the .75 level, there is an indication that the majority feel their instructional methods have improved. Also, there is evidence of a lower percentage of progress at the extremes.

Items numbers four and five (See Tables V and VI, pages 26 and 27) are intended to give some insights into student growth and development in both tangible and intangible areas, as perceived by the various instructors.

TABLE III
INSTRUCTIONAL METHODS

| | Team Size | | | | | | Chi-Square |
|-------------|-----------|-------|------|------|-----|-------|------------|
| | Two | Three | Four | Five | Six | Seven | |
| Effective | 63% | 74% | 86% | 88% | 79% | 43% | |
| Ineffective | 37% | 26% | 14% | 12% | 21% | 57% | 7.563* |
| | | | | | | | .28** |
| N = 90 | 16 | 31 | 14 | 8 | 14 | 7 | |

* Probability of real difference is .75

** Contingency Coefficient (C)

Item #2: How do you perceive your instructional methods now, as compared to those which you possessed prior to your team teaching experience?

TABLE IV
INCREASING STAFF

| | Team Size | | | | | | Chi-Square |
|-------------|-----------|-------|------|------|-----|-------|------------|
| | Two | Three | Four | Five | Six | Seven | |
| Effective | 56% | 74% | 79% | 50% | 71% | 14% | |
| Ineffective | 44% | 26% | 21% | 50% | 29% | 86% | 11.68* |
| | | | | | | | .34** |
| N = 90 | 16 | 31 | 14 | 8 | 14 | 7 | |

* Probability of real difference is .95

**Contingency Coefficient (C)

Item #3: In your opinion, what effect would adding another competent teacher to your team have upon your professional growth?

TABLE V
STUDENT ACADEMIC GROWTH

| | Team Size | | | | | | Chi-Square |
|--------------------------|-----------|-------|------|------|------|-------|------------|
| | Two | Three | Four | Five | Six | Seven | |
| Areas per teacher | 2.00 | 3.17 | 4.38 | 1.67 | 2.14 | 2.67 | |
| % Indicating improvement | 44% | 52% | 93% | 75% | 71% | 29% | |
| Ineffective | 66% | 48% | 7% | 25% | 29% | 71% | 13.36* |
| | | | | | | | .36** |
| N = 90 | 16 | 31 | 14 | 8 | 14 | 7 | |

* Probability of real difference is .975

**Contingency Coefficient (C)

Item #4: Comparing your previous instructional program with your present team teaching program, has there been any noticeable improvements in student academic achievement? If "Yes", in which areas?

TABLE VI
STUDENT DEVELOPMENT

| | Team Size | | | | | | Chi-Square |
|----------------------|-----------|-------|------|------|------|-------|------------|
| | Two | Three | Four | Five | Six | Seven | |
| Relative point value | 2.59* | 2.76 | 2.83 | 2.24 | 2.59 | 2.70 | |
| Present | 61% | 80% | 89% | 63% | 64% | 70% | |
| No Change | 36% | 16% | 5% | 20% | 31% | 30% | |
| Previous | 3% | 4% | 6% | 17% | 5% | 0% | 48.14** |
| | | | | | | | .30*** |
| N = 495 | 83 | 173 | 81 | 46 | 102 | 10 | |

* Point values: Present = 3, No change = 2, Previous = 1

** Probability of real difference is .999

***Contingency Coefficient (C)

Item #5: Under which program do/did your students seem to be the strongest with regard to the following areas?

Self-concept
Adjustment to Peers
Ability to follow instructions
Attitude
Receptiveness
Acquisition of knowledge
Interpretation of new facts
Application of concepts

Items numbers six and seven (See Tables VII and VIII, pages 30 and 31) are intended to give some insights into the origin of the various teams. If the responder indicated that either the teacher, or both the teacher and the principal, were responsible for the decision, the item was judged to be effective.

The data from item eight will not be included in this study because some of the teachers reported their total planning and preparation time per week, and others reported only that which occurred during the regular school hours.

Obtaining data relating to sufficient planning and preparation time was the writer's intention when he included items numbers eight and nine in the questionnaire. While the writer is unable to report results for item eight, the data from item number nine shows a strong relationship between adequate planning and preparation time and team effectiveness (See Table IX, page 32).

According to the literature, one of the things which helps to make a team effective is the assigning of leadership responsibilities to teachers in their own areas of academic preparation. Item number ten was an attempt to investigate this criterion (See Table X, page 33).

The measurement of the team's effectiveness in the area of group interaction was accomplished by items numbers eleven, twelve, and thirteen (See Tables XI, XII, and XII, pages 34-36).

TABLE VII
ORIGIN OF TEAM

| | Team Size | | | | | | Chi-Square |
|-------------|-----------|-------|------|------|-----|-------|------------|
| | Two | Three | Four | Five | Six | Seven | |
| Effective | 69% | 71% | 71% | 50% | 71% | 100% | |
| Ineffective | 31% | 29% | 29% | 50% | 29% | 0% | 4.62* |
| | | | | | | | .22** |
| N = 90 | 16 | 31 | 14 | 8 | 14 | 7 | |

* Probability of real difference is .50

**Contingency Coefficient (C)

Item #6: Whose decision was it that your school would adopt a team teaching program?

TABLE VIII
FORMATION OF TEAM

| | Team Size | | | | | | Chi-Square |
|-------------|-----------|-------|------|------|-----|-------|------------|
| | Two | Three | Four | Five | Six | Seven | |
| Effective | 69% | 87% | 79% | 50% | 36% | 100% | |
| Ineffective | 31% | 13% | 21% | 50% | 64% | 0% | 17.68* |
| | | | | | | | .41** |
| N = 90 | 16 | 31 | 14 | 8 | 14 | 7 | |

* Probability of real difference is .995

**Contingency Coefficient (C)

Item #7: Who assumed the responsibility for the formation of your teaching team?

TABLE IX
 PLANNING AND PREPARATION TIME

| | Team Size | | | | | | Chi-Square |
|--------------|-----------|-------|------|------|-----|-------|------------|
| | Two | Three | Four | Five | Six | Seven | |
| Always | 0% | 0% | 22% | 0% | 0% | 0% | |
| Usually | 25% | 23% | 14% | 50% | 22% | 14% | |
| Occasionally | 6% | 16% | 14% | 13% | 28% | 43% | 27.17* |
| Never | 69% | 61% | 50% | 37% | 50% | 43% | .48** |
| N = 90 | 16 | 31 | 14 | 8 | 14 | 7 | |

* Probability of real difference is .975

**Contingency Coefficient (C)

Item #9: Do you feel that sufficient planning and preparation time is scheduled for your team?

TABLE X
SUBJECT AREA RESPONSIBILITIES

| | Team Size | | | | | | Chi-Square |
|-------------|-----------|-------|------|------|-----|-------|------------|
| | Two | Three | Four | Five | Six | Seven | |
| Effective | 31% | 42% | 57% | 63% | 57% | 0% | |
| Ineffective | 69% | 58% | 43% | 37% | 43% | 100% | 9.72* |
| | | | | | | | .31** |
| N = 90 | 16 | 31 | 14 | 8 | 14 | 7 | |

*Probability of real difference is .90

**Contingency Coefficient (C)

Item #10: In which of the following areas have you, or will you have, team leadership responsibilities?

Reading
Language Arts
Math
Social Studies
Art
Physical Education
Health
Science
Music
Library

TABLE XI
GROUP INTERACTION

| | Team Size | | | | | | Chi-Square |
|--------------|-----------|-------|------|------|-----|-------|------------|
| | Two | Three | Four | Five | Six | Seven | |
| Always | 31% | 61% | 86% | 0% | 14% | 0% | |
| Usually | 44% | 19% | 7% | 88% | 57% | 14% | |
| Occasionally | 0% | 13% | 0% | 12% | 21% | 43% | |
| Never | 25% | 7% | 7% | 0% | 8% | 43% | 53.57* |
| | | | | | | | .61** |
| N = 90 | 16 | 31 | 14 | 8 | 14 | 7 | |

*Probability of real difference is .999

**Contingency Coefficiency (C)

Item #11: Do you feel that there is a free exchanging of ideas during your team meetings?

TABLE XII
GROUP INTERACTION

| | Team Size | | | | | | Chi-Square |
|--------------|-----------|-------|------|------|-----|-------|------------|
| | Two | Three | Four | Five | Six | Seven | |
| Always | 44% | 58% | 71% | 13% | 21% | 0% | |
| Usually | 38% | 35% | 29% | 87% | 64% | 43% | |
| Occasionally | 18% | 7% | 0% | 0% | 15% | 57% | |
| Never | 0% | 0% | 0% | 0% | 0% | 0% | 32.58* |
| | | | | | | | .52** |
| N = 90 | 16 | 31 | 14 | 8 | 14 | 7 | |

* Probability of real difference is .999

**Contingency Coefficiency (C)

Item #12: Do you feel that you are able to successfully communicate your ideas to the other members of your teaching team?

TABLE XIII
GROUP INTERACTION

| | Team Size | | | | | | Chi-Square |
|--------------|-----------|-------|------|------|-----|-------|------------|
| | Two | Three | Four | Five | Six | Seven | |
| Always | 69% | 68% | 93% | 25% | 29% | 0% | |
| Usually | 13% | 23% | 7% | 75% | 50% | 43% | |
| Occasionally | 0% | 3% | 0% | 0% | 21% | 57% | |
| Never | 18% | 6% | 0% | 0% | 0% | 0% | 57.61* |
| | | | | | | | .62** |
| N = 90 | 16 | 31 | 14 | 8 | 14 | 7 | |

*Probability of real difference is .999

**Contingency Coefficient (C)

Item #13: Do you feel that all the members of your team make a contribution to the team's program?

Items fourteen and fifteen (See Tables XIV and XV, pages 38 and 39) were designed to measure the relative effectiveness of the various sizes of teaching teams in the area of instructional goals for students.

Item sixteen was included solely for the purpose of obtaining data relating to some of the possible problems encountered by the members of the various teaching teams.

As a further measurement of effectiveness, the writer gave the teachers an opportunity to indicate what they felt was the proper size for a teaching team (See Table XVI, page 40). It was presupposed that if they felt that their team was sufficiently effective, they would choose their own team size.

TABLE XIV
INSTRUCTIONAL GOALS

| | Team Size | | | | | | Chi-Square |
|--------------|-----------|-------|------|------|-----|-------|------------|
| | Two | Three | Four | Five | Six | Seven | |
| Yes | 13% | 16% | 50% | 38% | 14% | 0% | |
| Most of them | 31% | 23% | 36% | 38% | 43% | 0% | |
| Few of them | 31% | 26% | 7% | 0% | 14% | 29% | |
| No | 25% | 35% | 7% | 24% | 29% | 71% | 29.36* |
| | | | | | | | .50** |
| N = 90 | 16 | 31 | 14 | 8 | 14 | 7 | |

*Probability of real difference is .99

**Contingency Coefficiency (C)

Item #14: Have the instructional goals for your students been stated in terms of performance criteria? Such as--
"When presented with a list of nouns and pronouns, the student will be able to label each word correctly."

TABLE XV
INSTRUCTIONAL GOALS

| | Team Size | | | | | | Chi-Square |
|--------------|-----------|-------|------|------|-----|-------|------------|
| | Two | Three | Four | Five | Six | Seven | |
| Always | 19% | 26% | 50% | 38% | 29% | 14% | |
| Usually | 63% | 35% | 50% | 38% | 43% | 0% | |
| Occasionally | 13% | 23% | 0% | 12% | 21% | 43% | |
| Never | 5% | 16% | 0% | 12% | 7% | 43% | 22.90* |
| | | | | | | | .45** |
| N = 90 | 16 | 31 | 14 | 8 | 14 | 7 | |

*Probability of real difference is .90

**Contingency Coefficient (C)

Item #15: Are student performance criteria included in your planning of the instructional program?

TABLE XVI
TEAM SIZE PREFERENCE

| | Team Size | | | | | | Chi-Square |
|--------|-----------|-------|------|------|-----|-------|------------|
| | Two | Three | Four | Five | Six | Seven | |
| Own | 17% | 31% | 80% | 0% | 45% | 0% | |
| Other | 83% | 69% | 20% | 100% | 55% | 100% | 17.90* |
| | | | | | | | .44** |
| N = 73 | 12 | 29 | 10 | 6 | 11 | 5 | |

*Probability of real difference is .995

**Contingency Coefficiency (C)

Item #17: If you were given the opportunity to establish a team teaching program, how many teachers would you want to have on the team?

CHAPTER IV

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

I. SUMMARY

While there are nine areas of investigation in the questionnaire, most of the data can be given a supportive role to one of two basic areas.

1. Professional growth of teachers
 - a. In-service growth
 - b. Instructional methods
 - c. Origin of team
 - d. Group interaction
2. Student growth and development
 - a. Student academic growth
 - b. Student development
 - c. Instructional goals
 - d. Individual leadership responsibilities

Professional Growth of Teachers

Table II, page 24, Subject Areas of Growth Per Teacher Per Team, indicates that the team sizes of four and seven members experienced the greatest growth, while the others reported similar averages.

Table III, page 25, Instructional Methods, shows that, generally speaking, all the teams felt they had improved in

this area. Therefore, the writer decided to investigate the possibility of a significant correlation between the above areas.

TABLE XVII
INSTRUCTIONAL METHODS

| | Improved | Unimproved | Chi-square |
|----------------------|----------|------------|------------|
| In-service growth | 91% | 50% | |
| No In-service growth | 9% | 50% | 16.70* |
| | | | .40** |
| N = 86 | 66 | 20 | |

*Probability of real difference is .999

**Contingency Coefficient (C)

NOTE: There is a significant correlation between In-service growth and improved instructional methods.

Table VIII, page 31, Formation of the Teams, shows that in most cases the teachers were given the opportunity to participate in this decision. However, the data for team sizes five and six indicates that, for the most part, the formation of these teams was handled by a school administrator.

Group interaction is a very important ingredient in any team teaching program. (Refer to Chapter II, section V, page 16.) And Tables XI, XII, and XIII, pages 34-36, show that

the four member teams were, by far, the most effective in this area. The tables also demonstrate that the degree of effectiveness increased as the team sizes grew from two through four. Then effectiveness tailed off quickly.

Inquiry into the possibility of a significant correlation existing between the method used to select team members and the team's interaction provides the following data.

TABLE XVIII
FORMATION OF TEAM

| | Effective | Ineffective | Chi-square |
|---------------------|-----------|-------------|------------|
| Team Interaction | 66% | 40% | |
| No Team Interaction | 34% | 60% | 5.03* |
| | | | .23** |
| N = 87 | 62 | 25 | |

*Probability of real difference is .975

** Contingency Coefficient (C)

NOTE: There is a significant correlation between formation of the team and team interaction.

Student Growth and Development

Table V, page 27, Student Academic Growth, demonstrates that a much higher degree of effectiveness was achieved by the four member teams, as compared to the other sizes of teams.

Table VI, page 28, Student Development, indicates a growth in effectiveness from two member teams through four member teams. At this point the degree of effectiveness diminishes.

A correlation between student academic growth and student development is demonstrated by the following table.

TABLE XIX
STUDENT ACADEMIC GROWTH

| | Effective | Ineffective | Chi-square |
|------------------------|-----------|-------------|------------|
| Student Development | 84% | 48% | |
| No Student Development | 16% | 52% | 12.25* |
| | | | .35** |
| N = 87 | 56 | 31 | |

*Probability of real difference is .999

**Contingency Coefficient (C)

NOTE: There is a significant correlation between student academic growth and student development.

As to the use of instructional goals, Tables XIV and XV, pages 38 and 39, show that four member teams made the greatest use of instructional goals. The only other team size which made a significant use of instructional goals was the five member team.

If instructional goals are necessary, there should be a significant correlation between student academic growth and instructional goals.

TABLE XX
INSTRUCTIONAL GOALS

| | Effective | Ineffective | Chi-square |
|----------------------------|-----------|-------------|------------|
| Student Academic Growth | 86% | 49% | |
| No Student Academic Growth | 14% | 51% | 13.33* |
| | | | .36** |
| N = 87 | 42 | 45 | |

*Probability of real difference is .999

**Contingency Coefficient (C)

NOTE: There is a significant correlation between the use of instructional goals and student academic growth.

According to Table X, page 33, team sizes four, five and six demonstrated the highest relationship between team leadership responsibilities and academic preparation on the part of the teachers. Results from two, three and seven member teams indicated that there was no apparent attempt to assign team leadership responsibilities to those teachers who had prepared in the various subject matter areas.

Judging from the information in Chapter II, page 11, there should be a significant correlation between student academic achievement and the assigning of team leadership responsibilities according to academic preparation.

TABLE XXI
LEADERSHIP RESPONSIBILITIES

| | Effective | Ineffective | Chi-square |
|----------------------------|-----------|-------------|------------|
| Student Academic Growth | 78% | 51% | |
| No Student Academic Growth | 22% | 49% | 5.74* |
| | | | .27** |
| N = 72 | 37 | 35 | |

*Probability of real difference is .975

**Contingency Coefficient (C)

NOTE: There is a significant correlation between the proper assignment of team leadership responsibilities and student academic achievement.

Additional Comments

Reflecting over the data gathered in the study leaves one believing that a team size of four is much the more effective.

The four member teams ranked highest in the areas of:

1. Professional growth
2. Pupil growth and development
3. Planning and preparation time (Several of their returns indicated that they scheduled team meetings for in the mornings.)
4. Group interaction
5. Instructional goals

In an attempt to rank the teams according to the data, the writer decided to give numerical values to the various positions in the rankings. The highest percentage score on an item received six points, the next highest was awarded five points, and so on. Thus, the writer was able to establish the following data:

TABLE XXII
OVERALL TEAM RANKINGS

| | Team Size | | | | | |
|--------------|-----------|-------|------|------|------|-------|
| | Two | Three | Four | Five | Six | Seven |
| Total Points | 40.5 | 53.0 | 78.5 | 48.0 | 46.0 | 28.0 |

Further examination of the data exposes two more significant sets of data.

First, in the area of team size preference, the writer tabulated the actual number of responses favoring the various

team sizes. The percentile scores, once again, favored the team size of four.

TABLE XXIII
TEAM SIZE PREFERENCE

| | Team Size | | | | | | |
|-------------|-----------|-------|------|------|-----|-------|-------|
| | Two | Three | Four | Five | Six | Seven | Eight |
| Total Votes | 5 | 13 | 36 | 6 | 7 | 4 | 2 |
| Percent | 7% | 18% | 49% | 8% | 10% | 5% | 3% |
| N = 73 | | | | | | | |

The writer also attempted to find out if there was a correlation between effective team teaching and team size preference. So first in order to distinguish between the effective and ineffective returns, the writer listed the major areas of investigation.

1. In-service growth of teachers
2. Instructional methods
3. Student growth and development
4. Origin of the team
5. Individual leadership responsibilities
6. Group interaction
7. Instructional goals

Those returns which indicated effectiveness in a simple majority of the areas were determined to be effective. Then the returns were divided into the following four groups.

1. Those which were effective and preferred their own team size.
2. Those which were ineffective and preferred their own team size.
3. Those which were effective and preferred another team size.
4. Those which were ineffective and preferred another team size.

Of special interest is the fact that out of those who preferred their own team size, only one was judged to be ineffective. Also, of those who preferred another team size, the majority were ineffective.

TABLE XXIV

EFFECTIVENESS-TEAM PREFERENCE CORRELATION

| | Own Size | Another Size | Chi-square |
|-------------|----------|--------------|------------|
| Effective | (23) 96% | (19) 39% | 21.53* |
| Ineffective | (1) 4% | (30) 61% | .48** |

*Probability of real difference is .999

**Contingency Coefficiency (C)

II. CONCLUSIONS

The original hypotheses of this study was that:

As the size of a teaching team approaches a total membership of six professional instructors, coorespondingly, a growth will occur in the following areas:

1. Total number of teacher competencies within the team
2. Professional growth of the individual team member
3. Student growth and development

However, judging from the following conclusions, the above does not occur.

1. The data indicates a growth in effectiveness starting with the two member teams and continuing on through the four member teams. Then starting with the five member teams, the degree of effectiveness begins to diminish.
2. In the areas of:
 - a. Professional growth of teachers
 - b. Student growth and development
 - c. Planning and preparation time
 - d. Team size preference
 - e. Use of instructional goals
 - f. Team interaction

the four member teams were the most effective. Therefore, it would seem, according to the data, that a team size of four is the most desirable.

3. The data implies that there is a significant correlation between the various criteria used to measure effectiveness in this study. For example:

- a. In-service growth of teachers and improved instructional methods
- b. The method used to select team members and the team's interaction
- c. Student academic growth and student development
- d. The use of instructional goals and student academic growth
- e. The proper assignment of team leadership responsibilities and student academic growth
- f. Team size preference and overall individual teacher effectiveness

III. RECOMMENDATIONS

The writer recommends further studies to determine the following:

1. What is adequate time for planning and preparation?
2. Does team effectiveness increase on a yearly basis?
3. What are the effects of the administration determining team composition?
4. What is the effect of behavioral objectives upon the team teaching program?
5. What effect would sensitivity training have upon the group interaction of a teaching team?
6. What is the maximum effective pupil-teacher ratio in a team teaching program?
7. What advantages are there for students in a team teaching program which are not measured by standard achievement tests?

BIBLIOGRAPHY

BIBLIOGRAPHY

1. Anderson, Robert H. Teaching in a World of Change. New York: Harcourt, Brace & World, Inc., 1966.
2. Anderson, Robert H., and others. "Team Teaching in an Elementary School," School Review, Vol. 68, Spring, 1960, pp. 71-84.
3. Anderson, Robert H., and John I. Goodlad. "Self-appraisal in Nongraded Schools: A Survey of Findings and Perceptions," The Elementary School Journal, Vol. 62, October, 1962, pp. 33-40.
4. Arnold, William E. "Is Team Teaching the Answer?" The Education Digest, Vol. 29, March, 1964, pp. 20-21.
5. Beggs, David W. Team Teaching: Bold New Venture. Indianapolis, Indiana: Unified College Press, Inc., 1964.
6. Bloom, Benjamin S. (ed.). Taxonomy of Educational Objectives. New York: David McKay Company, Inc., 1966.
7. Brownell, John A., and A. Taylor Harris. "Theoretical Perspectives for Teaching Teams," The Phi Delta Kappan, Vol. 43, January, 1962, pp. 150-157.
8. Bruning, James L., and B. L. Kintz. Computational Handbook of Statistics, Glenview, Illinois: Scott, Foresman and Company, 1968.
9. Cunningham, Luvern L. "When is a Team a Team?" High School Journal, Vol. 45, October, 1961, pp. 7-13.
10. Drummond, Harold D. "Team Teaching: An Assessment," Educational Leadership, Vol. 19, December, 1961, pp. 160-165.
11. Gaskell, William. "The Inservice Education Potential of Team-Planning-Teaching," Peabody Journal of Education, Vol. 45, No. 3, November, 1967, pp. 152-155.
12. Hass, Erv, and others. "Design for Team Teaching," The Instructor, Vol. 76, No. 9, May, 1968, p. 76.

13. Hillson, Maurie. Change and Innovation in Elementary School Organization. New York: Holt, Rinehart and Winston, 1967.
14. Hoopes, Ned E. "The Training Process for Team Teaching," The Journal of Teacher Education, Vol. 14, June, 1963, pp. 177-178.
15. Institute of Field Studies, Teachers College, Columbia University, Dundee Team Teaching Project Greenwich, Connecticut. New York, February, 1965.
16. Johnson, Robert H., Jr., and John J. Hunt. R_x for Team Teaching. Minneapolis, Minn.: Burgess Publishing Co., 1968.
17. Kelly, Eugene T. "Why Team Teaching Fails," The Instructor, Vol. 75, No. 8, April, 1967, p. 25.
18. Morse, Arthur D. Schools of Tomorrow--Today! Garden City, New York: Doubleday and Company, Inc., 1960.
19. Reasoner, Robert W., and Harvey R. Wall. "Developing Staff Interaction in Team Teaching," The National Elementary Principal, Vol. 44, No. 3, January, 1965, pp. 84-86.
20. Shaplin, Judson T., and Henry F. Olds, (ed.). Team Teaching. New York: Harper and Row, Publishers, 1964.

APPENDIXES

APPENDIX A

QUESTIONNAIRE

General Information

School System _____ Building _____

Number of teachers on your team _____ Your age _____ Sex _____

Degrees held B.A. (Ed.) _____ M. (Ed.) _____ Other _____

Number of graduate hours beyond last degree _____ Qtr./Sem.

Teaching experience (A) Total number of years _____

(B) Total years at present school _____

(C) Total years as a member of your
team _____

Areas of academic preparation (A) Major _____

(B) Minors _____

Total number of pupils instructed by your team _____

Directions

- (A) Place a check on the line opposite your desired response.
- (B) If none of the possible answers express your opinion, please make use of the space marked "Other".
- (C) If for some reason you feel unqualified to answer a question, or merely wish to not respond to a certain question, please mark "No response".
- (D) Upon completion of this questionnaire, please return it to your principal for mailing. An envelope is provided for your use.

1. In which of the following areas do you feel that you have made substantial professional growth, as compared to your degree of competency in each area prior to your team teaching experience?

| | | |
|-----------------------------------------|---------------------------------------------|--------------------------------------|
| <input type="checkbox"/> Reading | <input type="checkbox"/> Art | <input type="checkbox"/> Music |
| <input type="checkbox"/> Language | <input type="checkbox"/> Physical Education | <input type="checkbox"/> Library |
| <input type="checkbox"/> Math | <input type="checkbox"/> Health | <input type="checkbox"/> No Response |
| <input type="checkbox"/> Social Studies | <input type="checkbox"/> Science | <input type="checkbox"/> Other |

2. How do you perceive your instructional methods now, as compared to those which you possessed prior to your team teaching experience?

| | |
|-------------------------------------------|------------------------------------------------|
| <input type="checkbox"/> Not as effective | <input type="checkbox"/> No significant change |
| <input type="checkbox"/> More effective | <input type="checkbox"/> No response |

3. In your opinion, what effect would adding another competent teacher to your team have upon your professional growth?

| | |
|---------------------------------------------------|--------------------------------------|
| <input type="checkbox"/> Hamper potential growth | <input type="checkbox"/> No effect |
| <input type="checkbox"/> Broaden potential growth | <input type="checkbox"/> No response |
| Other _____ | |

4. Comparing your previous instructional program with your present team teaching program, has there been any noticeable improvements in student academic achievement?

| | | | |
|------------------------------|-----------------------------|--------------------------------------|---------------------------------------------|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> No response | <input type="checkbox"/> Noticeable Decline |
|------------------------------|-----------------------------|--------------------------------------|---------------------------------------------|

If "Yes", in which areas; if "Noticeable decline", in which areas?

Reading Art Music
 Language Arts Physical Education Library
 Math Health No Response
 Social Studies Science Other

5. Under which program do/did your students seem to be the strongest with regard to the following areas?

| | Present | Previous | No Change | No Response |
|--------------------------------|---------|----------|-----------|-------------|
| Self-concept | _____ | _____ | _____ | _____ |
| Adjustment to peers | _____ | _____ | _____ | _____ |
| Ability to follow instructions | _____ | _____ | _____ | _____ |
| Attitude | _____ | _____ | _____ | _____ |
| Receptiveness | _____ | _____ | _____ | _____ |
| Acquisition of knowledge | _____ | _____ | _____ | _____ |
| Interpretation of new facts | _____ | _____ | _____ | _____ |
| Application of concepts | _____ | _____ | _____ | _____ |

6. Whose decision was it that your school would adopt a team teaching program?

Principal Both teachers and the principal
 Teachers No response

7. Who assumed the responsibility for the formation of your team?

Principal Both teachers and the principal
 Teachers No response

8. How much planning and preparation time are you allotted per week? _____ Minutes/Hours
9. Do you feel that sufficient planning and preparation time is scheduled for your team?
- _____ Always _____ Never
- _____ Usually _____ No response
- _____ Occasionally _____ Other _____
10. In which of the following areas have you, or will you have, team leadership responsibilities?
- ___ Reading ___ Art ___ Music
- ___ Language Arts ___ Physical Education ___ Library
- ___ Math ___ Health ___ No response
- ___ Social Studies ___ Science ___ Other _____
11. Do you feel that there is a free exchanging of ideas during your team meetings?
- _____ Always _____ Never
- _____ Usually _____ No response
- _____ Occasionally _____ Other _____
12. Do you feel that you are able to successfully communicate your ideas to the other members of your teaching team?
- _____ Always _____ Never
- _____ Usually _____ No response
- _____ Occasionally _____ Other _____

13. Do you feel that all the members of your team make a contribution to the team's program?

Always Never
 Usually No response
 Occasionally Other _____

14. Have the instructional goals for your students been stated in terms of performance criteria? Such as -- "When presented with a list of nouns and pronouns, the student will be able to label each word correctly."

Yes No
 For most of them No response
 For a few of them Other _____

15. Are student performance criteria included in your planning of the instructional program?

Always Never
 Usually No response
 Occasionally Other _____

16. If you could, what alterations, additions, or deletions would you make in an effort to help your team become more effective?

17. If you were given the opportunity to establish a team teaching program, how many teachers would you want to have on the team?

____ 2 ____ 4 ____ 6 ____ 8 ____ Other
____ 3 ____ 5 ____ 7 ____ 9 ____ No response

This concludes the questionnaire, and I would like to thank you for your assistance. A copy of the results of this survey will be sent to you.

APPENDIX B

CONTRASTING PRINCIPLES UNDERLYING TWO THEORIES OF CLASS GROUPING

Team Teaching Approach

1. Groups of teachers take joint responsibility for instruction of a segment of the school population.
2. Two to eight certified teachers are responsible for 50 to 250 pupils of similar age and grade.
3. Clerical and secretarial needs are cared for by a clerical aide.
4. A senior teacher or team leader assumes responsibility for instructional leadership.
5. There is more flexible grouping as children are divided into different ability or interest groups for separate subjects.
6. Teachers develop further specialization in areas of special interest. Instruction is conducted by the most qualified and competent teacher in each curricular area.

Self-Contained Approach

1. Most instruction takes place at the hands of one teacher.
2. Twenty to thirty pupils are assigned to one teacher.
3. The teacher performs clerical duties and supervisory tasks of a non-instructional nature.
4. Each teacher has the same responsibility, regardless of his or her special training, experience, skill or capacity for taking responsibility.
5. The teacher must provide as best she can for the range of individual needs and abilities in her group.
6. The teacher is expected to have the skills and knowledge for competent instruction in virtually all subject-matter areas.

Team Teaching Approach

7. Teachers plan cooperatively, exchange ideas, analyze situations, and evaluate their instructional program together.
8. Students are subjected to a variety of teachers, many of whom are superior teachers.
9. Evaluation may be a joint responsibility of several teachers. Comparison and discussion will lead to grading.
10. Teachers have released time to plan their instructional program.

Self-Contained Approach

7. The teacher has little contact with other staff members or time to exchange professional views or discuss curricular areas.
8. The quality of the education of a student is dependent upon the competence of a single teacher.
9. One teacher is responsible for the evaluation of a pupil's work in all areas.
10. All planning is done by the one teacher in her free time.

APPENDIX C

POPULATION USED FOR THE STUDY

A. Two Member Teams

1. Bellevue School District; Bellevue, Wash.
Ardmore Elementary School
2. Northshore School District; Bothell, Wash.
Moorlands Elementary School
3. Highline School District; Highline, Wash.
Beverly Park Elementary School
4. Seattle School District; Seattle, Wash.
G. W. Kimball Elementary School
5. Seattle School District; Seattle, Wash.
South Van Assett Elementary School
6. Shoreline School District; Seattle, Wash.
Echo Lake Elementary School
7. Tacoma School District; Tacoma, Wash.
Larchmont Elementary School
8. Tacoma School District; Tacoma, Wash.
Whittier Elementary School

B. Three Member Teams

1. Bethel School District; Bethel, Wash.
Chester Thompson Elementary School

2. Coupeville School District; Coupeville, Wash.
Camp Casey Elementary School
3. Federal Way School District; Federal Way, Wash.
Nautilus Elementary School
4. Enumclaw School District; Enumclaw, Wash.
Westwood Elementary School
5. Highline School District; Highline, Wash.
Beverly Park Elementary School
6. Highline School District; Highline, Wash.
Gregory Heights Elementary School
7. Kent School District; Kent, Wash.
Panther Lake Elementary School
8. Kent School District; Kent, Wash.
Springbrook Elementary School
9. Seattle School District; Seattle, Wash.
South Van Asselt Elementary School
10. Tacoma Public School District; Tacoma, Wash.
Point Defiance Elementary School

C. Four Member Teams

1. Bremerton School District; Bremerton, Wash.
Armin Jahr Elementary School
2. Lake Washington School District; Lake Washington,
Wash.
Redmond East Elementary School

3. Seattle School District; Seattle, Wash.

T. T. Minor Elementary School

4. Tacoma School District; Tacoma, Wash.

Franklin Elementary School

D. Five Member Teams

1. Marysville School District; Marysville, Wash.

Shoultes Elementary School

2. Seattle School District; Seattle, Wash.

T. T. Minor Elementary School

E. Six Member Teams

1. Highline School District; Highline, Wash.

Angle Lake Elementary School

2. Tacoma School District; Tacoma, Washington

Larchmont Elementary School

3. Tahoma School District; Tahoma, Wash.

Shadow Lake Elementary School

F. Seven Member Team

1. Tacoma School District; Tacoma, Wash.

Horace Mann Elementary School

APPENDIX D

OTHER REFERENCES

1. Anderson, Robert H. "Team Teaching," National Education Association Journal, Vol. 50, March, 1961, pp. 52-54.
2. Anderson, Robert H. "Team Teaching in Action," The Nation's Schools, Vol. 65, May, 1960, pp. 62-65, 102, 104, 108, 110.
3. Andree, Robert G. "How to Improve Instruction With Teaching Teams," School Management, Vol. 4, November, 1960, pp. 51-54, 114.
4. Bair, Medill and Richard G. Woodward. Team Teaching in Action. Boston: Houghton Mifflin Company, 1964.
5. Clinchy, Evans, (ed. associate). Profiles of Significant Schools: Schools for Team Teaching. New York: Educational Facilities Laboratories, Inc., 1961.
6. Conant, James Bryant. The Education of American Teachers. New York: McGraw-Hill Book Company, Inc., 1963.
7. Cunningham, Luvern L. "Keys to Team Teaching," Overview, Vol. 1, October, 1960, pp. 54-55.
8. Dix, John P. "Team Teaching Requires Team Spirit," School and Community, Vol. 49, November, 1962, p. 27.
9. Douglass, Malcolm P. "Team Teaching: Fundamental Change or Passing Fancy," CTA Journal, Vol. 49, March, 1963, pp. 29-56.
10. Goodlad, John I, and Robert H. Anderson. The Nongraded Elementary School. New York: Harcourt, Brace, and World, 1959.
11. Greene, Maxine. "Keppel of Harvard," Saturday Review, Vol. 43, November 19, 1960, pp. 68-69.
12. Lambert, Philip. "Team Teaching for the Elementary School," Educational Leadership, Vol. 18, November, 1960, pp. 85-88.

13. Levensohn, Alan. "Team Teaching for the Elementary Schools," School Management, Vol. 2, December, 1958, pp. 45-48.
14. Marsh, Robert. "Team Teaching: New Concept?" Clearing House, Vol. 35, April, 1961, pp. 496-499.
15. Montgomery, Charles D. Team Teaching: A Research Guide for Administrators. Martinez, California: Contra Costra County Schools, December, 1960.
16. Shaplin, Judson T. "Team Teaching," Saturday Review, Vol. 44, May 20, 1961, pp. 54-55.
17. Smith, John Blackhall. "How to Introduce Team Teaching in Your Elementary School," School Management, Vol. 5, November, 1961, pp. 58-62.
18. Trump, J. Lloyd. Images of the Future. Commission of the Experimental Study of the Utilization of the Staff in the Secondary School, 1959.
19. Woodring, Paul. New Directions in Teacher Education. New York: The Fund for the Advancement of Education, 1957.