

DIFFERENTIATED STAFFING IN
THE SECONDARY SCHOOL--
ADMINISTRATIVE COURSES OF ACTION

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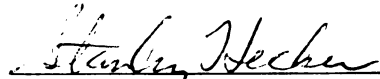
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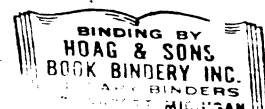
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ABSTRACT

DIFFERENTIATED STAFFING IN THE SECONDARY SCHOOL--ADMINISTRATIVE COURSES OF ACTION

By

Darrel Robert Weller

The purpose of this study was to develop the appropriate administrative courses of action that are needed when a secondary school moves from a traditional staffing pattern to a differentiated staffing pattern.

The approach was to look at all components of the secondary school that are related to the staffing patterns. This approach provided the basis for decisions regarding appropriate administrative courses of action to be used during a transition to differentiated staffing.

The review of the literature indicated that present staffing patterns evolved out of practice rather than research. Consideration was given to team teaching with its unique organizational features. The objective of the review was to bring into focus the feasibility of the secondary school undergoing major staffing pattern changes.

Questionnaires were submitted to seven secondary school districts presently engaged in differentiated staffing. Analysis of the data indicated that:

1. (Differentiated staffing is a rare concept in the secondary schools of the country.
2. Differentiated staffing still does not have a well-established definition.
3. (Differentiated staffing mandates a new role for teacher and administrator.
4. Differentiated staffing will provide more benefits to the student.
5. Differentiated staffing will result in an expanded use of paraprofessionals for instructional tasks.
6. Differentiated staffing requires considerable time for in-service.
7. (Differentiated staffing requires more planning time than a school functioning with a traditional staffing pattern.
8. The teacher will assume a greater degree of responsibility in the organization.
9. (Differentiated staffing) will result in an increase in the cost of operating the secondary school.
10. State certification codes and accreditation standards do not appear to be major problems.
11. The negotiating process was no more difficult because of differentiated staffing.

12. Differentiated staffing should permit the staff to be more adaptive to changes that will occur in the future.
13. Differentiated staffing will result in a greater burden being placed upon the student for his own learning.
14. The transition to differentiated staffing will be more difficult than the operation of differentiated staffing once the pattern is established.
15. Standard methods of evaluating the instructional program will not be enough when evaluation is performed.
16. A number of components of the educational system will all have to change at the same time if differentiated staffing is going to work.

The analysis of the data collected from the seven school districts together with extensive reading of the literature suggested several courses of administrative action that can be employed. Any alteration in the manpower system of a secondary school that moves toward differentiated staffing should consider the following administrative courses of action.

- x 1. Appoint a steering committee.
2. Assess readiness to make a major staffing change.
3. Adopt a performance curriculum.
4. Build, adopt, and incorporate instructional systems.

5. Set a master plan.
6. Prepare for organizational patterns to change continuously.
7. Confront numerous components of the organization at the same time.
8. Provide a process by which roles can be abolished and by which new roles can be created as student needs shift.
9. Retain key people for substantial periods of time.
10. Perform a task analysis.
11. Formalize new role responsibilities.
12. Utilize a matrix system in assessing the present strengths and weaknesses of the staff.
13. Adopt plans in opposition to the self-contained classroom taught by one teacher.
14. Perform a cost analysis.
15. Establish a research and development fund.
16. Pre-negotiate positions when possible.
17. Reject a merit pay plan.
18. Negotiate job security, but not role security.
19. Utilize an evolutionary process.
20. Perform a strong public relations program.
21. Reinforce the principal's leadership role.
22. Plan on changing many aspects of the principal's role.
23. Bring in outside input.

24. Develop a good feedback system.

25. Do not abandon plans after first evaluation.

New staffing patterns will be attempted in the future. It is the intent of this study to provide administrators with courses of action that they may employ in the process of shifting from a traditional staffing pattern to a differentiated staffing pattern.

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OF ACTION

By

Darrel Robert Weller

A THESIS

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DEDICATION

To my loving wife, Nancy, for
her continuous support

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Gratitude is also expressed to the faculty of Ottawa Hills High School and the administrative team of Richard Carlson, James Burrell, and Frank Pulte. They tolerated my presence in the building, my questions in the coffee lounge, my continuous pressure for change, and my general use of them as a sounding board.

Most of all, appreciation is expressed to my children, Timothy, Katherine, and little Steven for their cooperation and understanding. Their enthusiastic desire to learn has convinced me that schools will change.

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CHAPTER I

INTRODUCTION

Background of the Problem

The urbanization of society, the rapid expansion of the service occupations, the steady growth of our population, and the communications revolution are upon us. These factors mandate a redefinition of the function of schools and a reallocation of work responsibilities for the school staff.

Other conditions mandate reorganization of our secondary schools. The present generation of high school students has been reared on technological growth. They have experienced a period of fantastic change. In this multi-faceted society they have seen rapid changes in modes of transportation, the exploration of the moon, the quest into the oceans, ethnic unrest in the country, the growth of an affluent society with its pollution problems, etc. Yet, the schools that they face are very similar to those schools that their parents attended.

The social milieu in this country is such that "change" is almost expected. But people are not willing

to accept "change, just for the sake of perspective." There is a demand for educational impact during change. Technical and organizational changes of themselves are not enough. Misinformation and irrelevant information as the basis for change is taboo.

Our institutions are changing in the face of pressures. Etzioni felt that organizations were moving toward more specialization.

The process of modernization is one in which old functions are more effectively served rather than one in which new functions emerge. This gain in efficiency is largely achieved by differentiation, whereby the various functions which were carried out in one social unit come to be served by a number of distinct social units.¹

Traditional staffing patterns are not yet obsolete. It just appears that different staffing patterns may better suit our search for the "maximum mode of operation." Once it has been established that new staffing patterns will better serve the organizational goals, then traditional staffing patterns will become obsolete.

Many criticisms have been leveled at the present organizational patterns and the present staffing patterns of the secondary schools. These criticisms are directed at bureaucracy and the inability of the institution to change. Reorganization practices that involve different

¹Amaitai Etzioni, Modern Organizations (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1964), p. 106.

staff deployment have usually been designed to overcome (1) teacher shortage and (2) costs due to high salaries.

The local board of education, as the policy-making agency, is responsible for determining the type, quantity, and the caliber of teachers to be employed in the school system.² The board delegates the actual procurement and assignment to the central administrative staff.

Review of the staffing function in terms of dollars and cents alone provides some impression of its importance. School boards, their superintendents, and often other members of the professional staff and the lay public expend great effort in developing current operating budgets that present a picture of the kind of education they seek for children and their schools. Somewhere between 60 and 80 per cent of the funds represented in this effort goes to secure professional personnel.

Staff utilization as it now exists has sought to maintain states of equity for teachers. Teachers in turn have been conditioned to look at others within their own ranks and judge the fairness of their own teaching load. Equity, or attempts at equity, have been in three main areas: (1) student load, (2) time spent on the job, and (3) compensation.

²Stephen J. Knezevich, Administration of Public Education (2nd ed.; New York: Harper and Row, 1969), p. 335.

During the past few years, there has been an increase of interest in the nature and organization of the teacher's work. Attempts have been made at both the elementary and secondary levels to determine the activities required in a teaching position, and to recognize these activities with a view toward improving teaching conditions and the utilization of teacher time and talents.

The major concerns of the policy maker were formerly housing, equipment, and supplies. The big problem now is people. The field of personnel management assumes a greater role today than ever before. Roles are changing as schools examine organization and as they change, they result in new problems for the personnel director of the school system.

Administration in general has continuously sought to have schools operate in the "maximum mode of operation." Staff utilization has been a source of study and experimentation. Innovations in the past were usually developed out of the problems of practice rather than out of the theoretical constructs of the basic disciplines.

Undoubtedly, the best publicized activity on staff utilization was conducted at the secondary level with the encouragement of the National Association of Secondary School Principals. Most of the experiments and studies reported from this program did not constitute

acceptable research.³ One of the influences of these studies was to persuade schools to organize themselves into teaching teams and to make use of what have come to be called "paraprofessionals." The Ford Foundation collaborated with the NASSP on this project.

The NASSP Commission on the Experimental Study of the Utilization of the Staff in the Secondary School was created to examine ways to utilize staff during a period of teacher shortage. The main emphasis was not on the improvement of educational services to the student.

Staffing patterns in the secondary schools now are based on criteria which have evolved over the years. The secondary school, with its emphasis on specialization has moved to a departmental approach of instruction. Consequently, most of the difficulty in determining teacher load has resulted from the inability to use class size as the final measure of load.

Instead of depending entirely on a single measure of class size, administrators have evaluated the teaching load in the secondary school by the use of a variety of factors. The basis of their practice was given impetus by the regional accrediting associations of the country. These regional agencies have worked and developed a series

³Gordon G. Garford, "Conditions of Employment and Service in Elementary and Secondary Schools," Review of Educational Research, XXXIII (October, 1963), 381-90.

of teaching load factors, which they believe will prevent the teacher from receiving an excessive work load.

Yearly, a printed list of standards is distributed delineating the recommendations that are requirements necessary for membership in the accrediting association. The list of standards explains acceptable teaching load. In general, the accrediting agencies have attempted the evaluation of the teaching load by three different measures: (1) the number of periods taught, (2) the number of pupil periods assigned per week, and (3) the pupil-teacher ratio of the school.⁴

People over the years have tended to use different numerical methods to judge the effectiveness of a school system. Typical methods of measuring the educational system have included: (1) the number of professional staff per 1,000 students, (2) the level of academic training of the staff, (3) the teacher-pupil ratio, and (4) the number of teachers who have not met their individual certification requirements. These methods have not always been satisfactory. In general, the emphasis has been on physical measures with little regard for student output and the educational process.

Do the possibilities, the probabilities, and the problems of the future suggest a "change" with both the

⁴Leo M. Chamberlain and Leslie W. Kindred, The Teacher and School Organization (2nd ed.; Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1949), p. 226.

past and the present for which radically new kinds of skills and competencies are required? The answer is undoubtedly yes!

The schools of the future, will be organized around three kinds of activities: large-group instruction, individual study, and small-group discussion. These kinds of activities will come about through better utilization of the staff.⁵

Recent federal legislation (the Economic Opportunity Act of 1964, the Elementary and Secondary Education Act of 1965, and the Education Professions Development Act of 1967) has provided the financial means for employing "teacher aides," "paraprofessionals," or "auxiliary personnel" in schools throughout the United States.⁶

Schools are being asked to provide individual instruction to the extent that they attempt to maximize human potential. In January of 1960, the late Paul R. Mort convened a small group of superintendents of the member school districts of the Metropolitan School Study Council at Columbia University. He made the following prediction:

⁵Lloyd J. Trump, ed., Images of the Future (Washington, D.C., National Education Association: The Commission on the Experimental Study of the Utilization of the Staff in the Secondary School, National Association of Secondary School Principals, 1959), p. 7.

⁶Laurel N. Tanner and Daniel Tanner, "The Teacher Aide: A National Study of Confusion," Educational Leadership, XXVI (May, 1969), p. 765.

By 1980, the public schools will be required to assume the responsibility for each child's learning as an individual all that he is capable of learning from among those things to which the community gives priority.⁷

Mort contended that while the profession had been for some time highly vocal about giving attention to individual differences, most of our schools do not provide for this individualization. The schools were not a place where individuals learn as individuals.

Parent unrest centers on the belief that teachers are not doing their job. Thus performance criteria or expectations will probably be included in future bargaining agreements. Achievement levels will be specified and possibly linked to salary proposals. Discussions about appropriate performance criteria will sharpen quickly. Attention will be focused upon the goals and objectives of the schools.

Consideration of time allowed for learning has placed another mandate upon the reorganization of the secondary school patterns. Whatever the amount of time allowed by the school and the curriculum for particular subjects or learning tasks, it is likely to be too much for some students and not enough for other students. In traditional time periods, the teacher is responsible to

⁷Paul R. Mort, "Progress Report on the School of 1980," Unpublished Document, Institute of Administrative Research, Teachers College, Columbia University, 1962, p. 72.

fill the time allocated with appropriate learning tasks. Some schools as they employ "flexible scheduling" have sought to alter the organization so that the time fits the task to be learned.

Administration has recently through negotiations permitted the teachers to participate in management.

The justification for participation in decision making by those responsible for implementation is not made from the standpoint of human relations. Permitting the appropriate colleagues and subordinates to participate is not so much a favor to the participants as it is a favor to the administrator. It not only permits pretesting of decisions by exposing them to the scrutiny of those who will have to use them, but it most often assures support instead of sabotage.⁸

The proponents of collective negotiations insist that a change is necessary. Their prediction and their drive are to change the status of principals and supervisors, for example to staff and supporting roles, not line. This proposed change in role, or the change in the perception of the role, will come as a significant modification and threat to the principal.

The teacher has become motivated with a political orientation. He is concerned about the criticism being placed upon education. His desire is to modify the school in ways that will make it more professionally sound. He hopes to change perceptions of the teaching profession.

⁸ Ray E. Brown, Judgment in Administration (New York: McGraw-Hill Book Company, 1966), p. 51.

Much has been written in recent years concerning the professionalization of the classroom teacher. Perhaps no single area in American education has caused as much controversy from within and from without the educational domain as the subject of professional standing. Much of the teacher unrest and agitation instigated by teacher unions and other teacher organizations is centered on a concern for more professional status.⁹

If the administrator is going to be the educational leader in the future and act as the change agent, he must "seek to modify goals, restructure curricula, restructure organization, remodel decision-making practices, shift the allocation and distribution of financial resources, and revitalize professional personnel."¹⁰

To challenge the ideas, the organization, or the function of an institution is relatively easy. To modify it becomes more difficult. Personnel are often held more accountable for continuing procedures than for changing procedures. Budgets are usually built for stability and continuity, rather than discontinuity.

Institutions have been established to provide continuity and coordination. The school as an institution provides a wide band of resources, services, and personnel.

⁹Deane W. Wiley and Lloyd K. Bishop, The Flexibly Scheduled High School (West Nyack, New York: Parker Publishing Company, 1968), p. 173.

¹⁰Luvern L. Cunningham, "Viewing Change in School Organization," Administrator's Notebook, XI, No. 1 (September, 1962).

The personnel have maintenance of function as a significant responsibility. The institution must change its function if it is to adapt to the changing environment. If staffing pattern changes provide better education, the institution must change.

The nature of an organization does make a difference. The patterns of staffing do alter the output.

Citizen, student, and teacher pressures are upsetting our traditional thinking about educational organizations and, concomitantly, decision making within the organizations. In my judgment the product of these clashes will be healthier institutions. So, on with the fray.¹¹

Purpose of the Study

"A staffing pattern is a concrete manifestation of philosophical positions regarding the nature of knowledge, the nature of learning and teaching, and the nature of man."¹² Decisions about staffing patterns are central to the operation of a school. Effort must be expended to recruit, select, supervise, certify, evaluate, and assign teachers as well as to consider their welfare.

The purpose of this study is: (1) to review the factors that have been used to determine present staffing patterns in the secondary schools, (2) to examine the

¹¹Luvern L. Cunningham, "Crisis in School Organization," Educational Leadership, XXVI (March, 1969), 551.

¹²Fenwick English, "Teacher May I? Take Three Giant Steps! The Differentiated Staff," Phi Delta Kappan, LI (December, 1969), 211.

factors that have been advanced as a rationale for differentiated staffing patterns, (3) to identify some of the disadvantages of differentiated staffing, (4) to consider the administrative implications of differentiated staffing, (5) to develop the appropriate administrative courses of action that are needed when a secondary school moves from a traditional staffing pattern to a differentiated staffing pattern, and (6) to make suggestions for further research.

Significance of the Study

The education profession is continuously searching for ways of ordering the meanings behind objective data collected. Considerable work has been carried on in the field of education that should be capable of providing deeper meanings to staff deployment patterns. "The practices and processes of staffing are not sufficiently well understood, nor have they been adequately evaluated."¹³ This study attempts to make a contribution to the knowledge about staffing patterns in the secondary school.

Theory can give meaning to research and administrative practice. Theories provide insight into ways of considering appropriate actions. The administrator must be sensitive to theoretical developments and also careful

¹³Harland E. Samson, "Staffing," Review of Educational Research, XXXVII (October, 1968), p. 413.

in using theory. This study will bring theory to bear on administrative actions.

Educators who promote the concept of differentiated staffing seldom point out the disadvantages. Their rationale is generally centered upon a series of value judgments. Costs, lack of productivity, administrative logjams, and implication of the change are usually of little consideration. This study intends to bring into the open some of counterproductive elements of the new staffing pattern.

Assumptions and Limitations

Administration can be defined as the constant reconciliation of the enterprise to a constantly shifting environment. Fitted administration, however, requires a willingness and ability on the part of the administrator to adapt to, as well as to recognize, changing circumstances. Unless he possesses the necessary degree of flexibility, he cannot expect to accommodate to the shifting circumstances which constantly confront him and the organization.¹⁴

It is assumed that administration will make the necessary adjustments to the shifting environment and will continue to be responsible for staffing the schools in the future.

One of the major criticisms is that schools are inefficient. Administration is charged with the responsibility of finding different modes of operation that will provide for greater efficiency. It is assumed that we

¹⁴Ray E. Brown, Judgment in Administration (New York: McGraw-Hill Book Company, 1966), p. 182.

have not reached the "maximum mode of operation." Administration must struggle to reach the optimal level for each school.

Frequently the major purpose of past research in education seems to have been the justification of a program. In the future, the conceptualizations of research will form the underlying rationale for the construction and the use of particular operational procedures. This study does not attempt to assess the educational value of differentiated staffing. Rather, this study will develop the administrative methods that a school district might use as it changes its staffing pattern to differentiated staffing.

The assumption is made that valid responses to the questionnaire can be secured. Appropriate courses of action are to be suggested after a systematic analysis of data collected by the questionnaire.

It is further assumed, that the concept of differentiated staffing is current and worthy of being researched. Emphasis on differentiated staffing will grow on a national level and the results of this study will be useful in future research.

Empirical research in the field of staff utilization tends to be complicated. A considerable number of variables have to be taken into account. School-wide or system-wide changes in staffing patterns are not easy

to accomplish. As the profession considers differentiated staffing, a great deal of attention will have to be given to research, development, and evaluation.

Definitions

Maximum Mode of Operation.--Hypothetical state of operation in which all components are contributing to give the highest possible output.

Traditional Staffing.--Organizational pattern in which all teachers have equivalent teaching responsibilities.

Differentiated Staffing.--Organizational pattern in which there is a professional hierarchy supported by paraprofessional staff.

Teacher.--"A person employed in an official capacity for the purpose of guiding and directing the learning experience of pupils."¹⁵

Team Teaching.--Organizational pattern that has a hierarchy of personnel, differentiated staff functions, and flexible grouping.

¹⁵Carter V. Good, ed., Dictionary of Education (New York: McGraw-Hill, 1959), p. 550.

Flexible Scheduling.--Organizational process by which the class size, length of class meetings, and number of classes are varied according to the nature of the subject, teaching methodology, and the needs of the students.

Paraprofessional.--Usually a non-certificated person with minimal training and education who performs some of the clerical or instructional tasks now performed by the teacher.

Clerical Aide.--A non-certificated person who performs clerical and routine duties under the supervision of a teacher.

Instructional Aide.--A non-certificated person who assumes part of the instructional responsibility under the direction of the teacher.

Methodology

This study attempts to identify the important factors that should provide the basis for reorganization of a staffing pattern in the secondary school. An examination of the factors that presently determine traditional staffing patterns is necessary. If it can be shown that the factors underlying present staffing patterns evolved out of practice and not out of research and theoretical considerations, then it might be

possible to advance a new rationale for staffing the secondary school. This study will survey a few high schools in the country that have moved into differentiated staffing. It will identify the important items in a rationale for differentiated staffing. Attention will then be directed at developing administrative courses of action that might be used when a school system makes the transition to a differentiated staffing pattern in their high school.

Chapter II will undertake the critical review of the literature searching for the factors that have determined present staffing patterns. Consideration will be given to the role a teacher has in the classroom. The evolution of teacher aides will be examined. Some space will be devoted to innovative organizational patterns now being used by school districts. This chapter will also consider the need for reorganization by examining administrative leadership and organizational change.

Chapter III will utilize the data gathered by the author's questionnaire. Sources of administrative difficulty will be delineated. Different courses of action, as appropriate to the administrative function during reorganization of staffing patterns, will be developed.

Chapter IV will be devoted to implications, conclusions, and recommendations. Future research, in the area of differentiated staffing, will be suggested.

CHAPTER II

REVIEW OF THE LITERATURE

Rationale for Present Staffing Patterns

Over the years there has been much discussion on staffing the high school. Most of the writing is in the form of proposals for policies, descriptions, or theories on staffing. Some studies have tried to show a relationship between staff morale and job dissatisfaction. No studies have attempted to examine if there is a relationship between professional growth and enlarged professional responsibilities.

A common complaint has been that on the average, teachers' loads are heavy and that something must be done to lighten them.¹⁶ Trump and Baynham pointed to neglected professional tasks that need attention. They suggested that the secondary teacher spend fifteen hours a week with students in class sizes of fifteen students.¹⁷

¹⁶Harold E. Moore and Newell B. Walters, Personnel Administration in Education (New York: Harper and Brothers Publishers, 1955), p. 284.

¹⁷Lloyd Trump and Dorsey Baynham, Guide to Better Schools--Focus on Change (Chicago: Rand McNally and Company, 1969), p. 109.

They insisted that the time is needed by the teacher to perform quality teaching.

The teacher's load has evolved over a period of time and is usually measured in terms of one of the following:

- (1) Average class size;
- (2) Student-teacher ratio;
- (3) Number of classes per day;
- (4) Total enrollment in classes taught;
- (5) Total credit hours in courses taught;
- (6) Number of different subjects taught;
- (7) Total clock hours.

These measures are all present an incomplete picture. They do not take into account numerous factors which influence the time and energy devoted to different aspects of the professional task. One must realize that all attempts at setting teaching loads consists of an arbitrary measure which reflects norms in the culture at that time.

The concept of teaching load has not changed much in the last forty years. Research on teaching load in the year 1926 used the following measures:

1. The size of classes taught.
2. The mode of presentation of the class exercise.
3. The number of preparations necessary each day.
4. The number of classes taught each day.

5. The number of pupils for each teacher.
6. The total number of clock-hours spent in all school work.¹⁸

Ward suggested that other components should be added to any computations about teaching load. He added the following components:

1. The time per week spent in class, study halls, homerooms and all other duties given a definite allotment on the schedule.
2. Twenty minutes daily for each separate lesson preparation for the week.
3. Reasonable time for coaching, sponsoring, student conferences and other extra activities.
4. Three minutes per student per class for grading tests and other written work.¹⁹

The sum expressed in hours per week equals the teaching load. It was then the principal's task to try and equalize the teaching loads throughout the teaching staff.

Teaching load is generally understood to include all the time and energy a teacher must expend in fulfilling duties and responsibilities related to the task of teaching. Teaching load studies appear to mirror the contemporary socio-economic conditions. When school enrollments rise simultaneously with prices, there is renewed activity in teaching load studies.

¹⁸Clifford Woody and W. G. Bergman, "The Measurement and Equalization of the Teaching Load in the High School," North Central Association Quarterly, I (1926), 339.

¹⁹William A. Ward, "Figuring the Teacher's Load," Nation's Schools, XVII (March, 1936), 22.

Unless specifically defined in the teacher's contract or in the state statutes, a teacher's instructional load is not determined by law. Classroom teachers in some towns have questioned the legality of their performing noninstructional tasks. The courts have not answered this question directly. The courts have established some guidelines.^{20,21} A classroom teacher may be assigned duties outside the classroom if those duties are of an educational nature. A school board may arrange for nonrelated services for extra compensation, but need not pay extra compensation when the extra duties are connected with the teacher's classroom work. Supervision of a playground is within the scope of a classroom teacher's duties. A school board may delegate to principals the executive function of making teaching assignments.

The teaching load a teacher carries is now built into the teacher's master contract in those states or localities having "master contracts." The teaching load has been established at the bargaining table. Deviations from the arbitrary standards set forth may usually be made by mutual consent of the two parties. Questions continue to occur on how measurement of load within a building should be determined. Almack and Bursch

²⁰Parrish, et al. v. Moss, et al., 106N.Y.S. 2d, 577 (New York, 1951).

²¹Hoose v. Drum, 22 N.E. 2d, 233 (New York, 1939).

suggested that the only way to arrive at a measurement of load was through a consensus of faculty members concerning the relative difficulty of the various duties.²² They suggested that the teaching load should be stable. A principal should not bring unexpected tasks to bear upon the teacher. The load should be adjusted to the teacher's ability.

The problem of deciding who should arrange the assignments of teachers will depend upon the size of the particular school and the size of the school system. Douglass suggests a pattern that is prevalent.

1. In small schools (6-8 teachers), the superintendent should take the initiative.
2. In medium size schools (9-60 teachers), the principal should take the initiative.
3. In large schools (61-90 teachers), the department heads are usually designated.²³

The first problem of the administrator who is building a traditional staffing pattern is to discover how much work the teacher can and should do. The next step is to assign equitable teaching loads to the individual members of his staff. In order to accomplish these purposes, the administrator must find out what factors determine the teaching loads. He must then set

²²John C. Almack and James F. Bursch, The Administration of Consolidated and Village Schools (Boston: Houghton Mifflin and Company, 1925), p. 87.

²³Harl R. Douglass, Modern Administration of Secondary Schools (2nd ed.; Boston: Ginn and Company, 1963), p. 78.

up measures that will permit him to evaluate these loads objectively and with a reasonable degree of accuracy.

In the interest of fairness, the good will of the teaching staff, and the working efficiency of the school, the principal should exercise considerable care to make his assignments in such a way that the load will be equally divided among the members of his staff. The administrator should be alert to every opportunity to reduce the demands made upon their time and their physical and mental energy.

The administrator is faced with the burden of making a sound base for staffing decisions. It may be relatively simple to dismiss the problem by assigning each staff member a designated number of teaching hours. But one must recognize that individual differences operate in teacher load. Staff members differ in terms of health, experience, age, interest in extra curricular situations, and quality of their teaching.

Some faculty members are willing to carry additional responsibilities. Some have additional assignments placed upon them, because they are available. Other staff members lack confidence in their abilities.

Although the teaching load is probably heaviest in large schools, the evidence is not in complete agreement on the point. Student unrest in large schools creates an additional work responsibility for each teacher. A survey

in California revealed that classes in large high schools tend to average more students per class than in small schools.²⁴ Research done some twenty years prior to the California survey sheds some interesting light on past patterns.

1. Smaller schools have heavier teacher loads.
2. Teachers of foreign languages, industrial arts, home economics and physical education have lighter loads than do other teachers.
3. Teachers in accredited schools have greater loads than those in unaccredited schools.
4. Beginning teachers have greater loads than experienced teachers.
5. Administrators carry loads sufficiently large to invite criticism.²⁵

Considerable discussion has centered on variations in teaching load. Complete agreement regarding the weight that should be given to several subjects is lacking. All administrators are faced with the arguments of the English teacher with her stacks of themes to correct. They also must face the convincing appeals of most of their other teachers about time-consuming activities. The essence of all of these appeals proves little except that the setting of teacher load is controversial and difficult to resolve.

²⁴Thomas A. Shellhammer, "Can We Lengthen the Work Week of High School Teachers," National Association of Secondary School Principals Bulletin, XXXIX (November, 1955), 56.

²⁵Martin Quanbeck and Harl R. Douglass, "Teaching Loads in High Schools," Nation's Schools, XV (February, 1935), 37.

Teaching load involves more than class size. In 1938-1939, the N.E.A. Research Division broke away from the traditional emphasis upon class size and investigated the assignment, pressures, and feelings of nearly 4,000 classroom teachers.²⁶ It was the first nationwide study of what classroom teachers knew and believed about teacher load. About 55 per cent of the classroom teachers reported their teaching loads as reasonable, but 45 per cent of them said that their loads were heavy. This study identified forty-four load factors which created pressures, fatigue, and tensions. The ten most commonly mentioned factors could be classified under four major headings:

- (1) Class size or number of students;
- (2) Plant facilities;
- (3) Teaching methods;
- (4) Administrative procedures.

In 1949-1950, the N.E.A. Research Division obtained the cooperation of classroom teachers in reporting existing teaching load conditions.²⁷ Among the 2,200

²⁶ National Education Association, Research Division, "The Teacher Looks at Teacher Load," Research Bulletin No. 17 (Washington, D.C.: National Education Association, November, 1939), pp. 221-70.

²⁷ National Education Association, Research Division, "Teaching Load in 1950," Research Bulletin No. 29 (Washington, D.C.: National Education Association, February, 1951), pp. 3-51.

elementary and secondary school teachers reporting, 51 per cent estimated their teaching load to be heavy or extremely heavy. Forty-nine per cent estimated their teaching load to be reasonable.

A survey of subject combinations and teaching load for secondary school teachers was made by Romine.²⁸ The replies of 2,128 teachers from Colorado showed that about 53 per cent of all teachers were assigned in a single field, approximately 33 per cent in two fields, 12 per cent in three fields, and 2 per cent in four or five fields. Assignments involving more than two fields were rare in the larger schools. He provided some other conclusions in this study.

1. There was considerable variation of loads in a given subject field.
2. There was considerable variation of loads between different fields.
3. Teaching experience did not appear as much of a factor.
4. The median load of inexperienced personnel was below that of all teachers.
5. Sex was not a significant factor.
6. Teaching loads appear to be slightly heavier in larger schools.

Evidence regarding the burden which an increased number of preparations adds to the teaching load is conflicting. Romine suggested that with some exceptions, time requirements for out-of-class preparation seem to be less in

²⁸ Stephen Romine, "Estimating the Time Required for Out-of-Class Teaching Preparation," American School Board Journal, CXVII (November, 1948), 25.

a single field assignment than in those involving two or more fields.²⁹

Attempts to equalize the teaching loads in a building have in the past involved the use of formulas. The formula most often mentioned and most widely used was the one developed by Douglass in 1932. Before that time no reasonable measure was available. The formula took into consideration the number of classes taught, the length of the period, the amount of time spent in duplicate section, and coefficients to equalize differences in school subjects. A revision appeared in 1950.

Differences in teaching load formulas are those of approach to an emphasis on the different components that make up a teaching program. Clark reduced teaching load to two major components:

1. The amount of time required to do the job.
2. The cumulative wearing effects of the various tasks which make up the teacher's job.³⁰

The teacher determines the time spent per week on each teaching activity. His teaching load is the sum of each teaching activity multiplied by a coefficient of wearing effect of that activity. Clark based his coefficient of

²⁹Ibid.

³⁰Leonard H. Clark, "Wearing Effect of Various Teaching Activities," School Executive, LXXIII (February, 1954), 47-49.

wearing effect on 1,099 questionnaires returned by 106 New England public secondary schools.

Pettit proposed that experience be used as a factor in a formula of teaching load. His formula completely ignores subject matter difficulty on the grounds that this factor varies with the individuals.³¹ The influence of experience is inconclusive. Koos found that the beginning teacher spends a little more time for every 40-minute class period than one with four or more years' experience.³² Another clock-hour formula, developed cooperatively by a group of school principals was reported by Frost. They assumed equal preparation time for all subjects.³³

A weakness in formulas is that they cannot determine the quality of work done or the relative importance of different aspects of the tasks. The formulas cannot indicate the probability that some teachers will not work well. Most components of a formula have to be arbitrary at some point. It is almost impossible to

³¹Maurice L. Pettit, "Determining Teacher Load," American School Board Journal, CXXVIII (March, 1954), 34.

³²Frank H. Koos, "The Load of the High School Teacher," American School Board Journal, LXV (August, 1922), 49.

³³Norman Frost, "What Teaching Load," American School Board Journal, CII (March, 1941), 43.

measure nervous strain. Nervous strain is inherent in the person and may not necessarily be the result of the teaching position. A formula has not been designed that will give community patterns and characteristics. While a number of different formulas for teaching load have been proposed, they are either so complex as to be impractical or too simple to be of any value. A unit of student credit does not offer a valid measure of teacher load.

At one time teacher load formulas were frequently used. Some administrators consider them additional work. Most principals rely on volunteer methods for extra-curricular assignments. Most principals seemed to place little reliance on solving their work assignments by the use of formulas.³⁴

Various surveys indicate that during the past quarter of a century the average teaching load in the high school, measured in terms of sections taught, has diminished from approximately six to approximately five daily.³⁵ Douglass indicates that this reduction in

³⁴Thomas A. Shellhammer, "Can We Lengthen the Work Week of High School Teachers?" National Association of Secondary School Principals Bulletin, XXXIX (November, 1955), 54.

³⁵Harl R. Douglass, Modern Administration of Secondary Schools (Boston: Ginn and Company, 1954), p. 93.

teaching load has been counterbalanced by the increased responsibility for the extra-curricular program of the school. Another factor cited as increasing load is the demand for greater attention to individual needs.

It is not possible to completely equalize the work load of teachers. Adjustments in the number of sections taught or adjustments in the number of preparations does not totally solve the problem. The variations in teaching load occurs almost entirely in the extra hours different individuals feel they need to devote to the job.³⁶

New concepts of the nature and the purpose of the educational process further emphasize the pivotal role of the teacher and imply many new responsibilities. Each expansion of educational objectives has the effect of multiplying the number of pupils.

Major obstacles in attaining the most effective use of the skills and talents of teachers in secondary schools have been the stumbling blocks caused by the rigidity of ideas about school staffing, class size, and scheduling. Over the years a pattern of planning has developed which has required that teachers meet with a limited number of students at a specific time, day after day. Two overriding aims have been to restrict teaching

³⁶Elmer W. McDaid, J. Wilmer Menge, and Paul Rankin, "What Is Your Teachers' Work Week?" School Executive, LXVI (July, 1947), 41.

load to a reasonable level and to routinize, and thereby lighten, the task of organization.

Teacher's Role

A society's mode of making a living decides what the most important roles within it are going to be. If the most suitable people are to be found for these roles, many people must be encouraged to compete for them so that the best can be chosen. It is important that the teaching profession be able to attract and retain some of the top people in the country.

Creative and imaginative preparation of new models must be undertaken. Investigation into the dimensions of course structure and school structure must be sought. A thorough look at staff preparation and utilization is necessary. Teachers could be trained for differentiated roles, but if these roles do not exist their skills would never be used. The fulcrum point in professional staff differentiation is to shake up existing school organization into different patterns.

The present role of the teacher implies that he be clerk, custodian, operator of audio-visual equipment, part lion tamer, psychologist, sociologist, prison guard, substitute parent, and sometimes a minister. Many educational theorists have advocated that teachers act as

leaders of the cooperative inquiry, a role that judging from the studies on teaching, very few teachers actually fulfill.

In a traditional school there are conflicts. The conflicts are between pupil and pupil, between pupil and teacher, but not usually between teacher and teacher. The system places teachers in positions of equality.

Deeply ingrained in the American educational system of the teacher's role is the concept of seniority. The seniority system favors the older teacher getting the lightest load or at least the preferred load. New teachers get the toughest classes and the most preparations. As the profession moves toward differentiated staffing, the strong sentiment for retention of seniority as a central measure for promotion will certainly be a strong barrier. One of the main tenets of professionalism must be peer regulation of technical performance. Substitution of a seniority principle for one of performance does not represent a good alternative.

Concern is expressed that if some teachers gain additional responsibilities and status, there will be a resultant loss of status for those who were not advanced. The positions of those who were not accorded additional responsibilities will probably be weakened, as explained by Lortie.

Where the status "teacher" is undifferentiated, the status of an individual teacher stems primarily from the status of the group. Where some teachers are accorded special recognition, however, the position of those who do not receive special recognition is weakened, for other teachers may ask, overtly or covertly, why they have not attained the more honored post.³⁷

Differentiated staffing can only succeed if experimental conditions keep going until teachers learn their new roles. Teacher acceptance will rest upon the differences in the new roles. It is important that the administration recognize that new roles exist for the teacher as well as the administrator.

Teachers have continuously tried to place a smokescreen in front of their roles. One of the extreme assumptions purported by the teacher organizations is that teaching is so complex a set of technical behaviors that it resists objective assessment, especially by administrators and supervisors. Therefore, a seniority system is preferable to any system which attempts to translate competence into material and status rewards.

The classroom teacher has enjoyed a great deal of autonomy. They have been permitted to carry out curriculum in their own mode. What is essential for effective learning is not necessarily highly correlated with

³⁷Dan C. Lortie, "The Teacher and Team Teaching: Suggestions for Long-Range Research," in Team Teaching, ed. by Judson T. Shaplin and Henry F. Olds, Jr. (New York: Harper and Row Publishers, 1964), p. 290.



what teachers prefer. What teachers consider to be good teaching may not result in the most effective learning. The spotlight should be focused on the learning process rather than on the teaching process.

Basic changes within the instructional life of a school demand new dimensions in the roles of the staff. Some of these new dimensions are:

1. Preparing for large-group instruction.
2. Becoming skillful in small-group leadership.
3. Using new communicational media.
4. Working together in teams.
5. Understanding new developments in subject area fields.
6. Becoming sensitive to independent study possibilities.³⁸

All of these new dimensions require a redefinition of how the staff spends its time.

Team Teaching

The concept of better use of teaching staff can be traced back at least twenty years. The recency of the phenomenon is reflected in the fact that "team teaching" first appeared in the Education Index only in 1957, and referred to the project at Franklin School in Lexington, Massachusetts.³⁹

³⁸Maxwell W. Griffin, "Schools of the Future-New," Bulletin of the National Association of Secondary School Principals, XLIV (May, 1962), 271.

³⁹Robert N. Bush, "A Searching Appraisal of New Developments," Journal of Secondary Education, XXXVII (October, 1962), 321.

Probably one of the most important writings on staff utilization patterns in general and team teaching in particular was set forth by Heathers.⁴⁰ He stressed the need for research in the design and implementation as well as in the evaluation of new plans. He suggested that team teaching is incompletely designed, inadequately implemented, and improperly evaluated. Comparative studies between two different organizational patterns are not as important to him as studies that show the accomplishment of essential objectives against well-defined standards of excellence.

When two or more teachers appear to work together rather loosely as associates, meeting occasionally, and dividing up the responsibility for instruction and students, a minimum of joint activity is necessary. This type of arrangement is many times improperly called team teaching. When the formal organization of a team is loosely defined, it may deteriorate into a minimum of cooperation. The necessity in planning insures an effective staffing pattern. It is important that the decisions be made deliberately and consciously rather than by default.

⁴⁰Glen Heathers, "Research on Team Teaching," in Team Teaching, ed. by Judson T. Shaplin and Henry F. Olds, Jr. (New York: Harper and Row Publishers, 1964), pp. 306-44.

In coordinate teaching the typical classroom unit, one teacher with thirty students, is preserved, but classes are rescheduled so that they may be combined at certain times for certain purposes. When the purpose of combining classes has been accomplished, the larger unit is broken down into component classes.

The term "team teaching" continues to be applied to a wide variety of arrangements involving cooperation and collaboration among teachers. The term should be used only when referring to ventures embracing three characteristics:

1. Hierarchy of personnel.
2. Differential staff functions.
3. Flexibility of grouping.⁴¹

The long-standing notion of a self-contained classroom of thirty pupils taught by one teacher is giving way to different organization patterns. The present organizational structure of the schools has made new approaches to division of labor difficult. The relatively isolated position of each individual teacher and the absence of working groups of teachers has made it hard to create efficient working situations for teacher aides.

Team teaching does represent a constructive force in the identification of problems and the search for

⁴¹John I. Goodlad and Kenneth Rehage, "Unscrambling the Vocabulary of School Organization," NEA Journal, LI (November, 1962), 36.

solutions. It stimulates professional growth among team members. It probably requires greatly increased time commitments for planning and coordination.⁴²

It is pertinent to the topic of this thesis to establish some of the characteristics of teaching teams. Olds describes it as follows:

First, a teaching team is a close association of professional teachers, not an association of non-professionals or of one professional teacher with one subprofessional assistant. Secondly, this association of professional teachers takes on certain types of responsibilities that have normally been the responsibilities of the school administration, namely the allocation of teachers to tasks and the allocation of pupils to tasks. And third, this professional association with the responsibility for accomplishing certain tasks is a formal organization and, as such, is one administrative unit within a larger unit, the school.⁴³

One of the major goals of team teaching has been the attempt to transfer certain managerial functions to the technical staff. For best utilization of staff the grouping and scheduling of pupils and staff on a sublevel should be permitted. There are some drawbacks to this plan. The transfer of managerial functions assumes that certain members of the teaching force have the necessary skills to make decisions regarding the

⁴²Robert O. Hahn, Jack Nelson, and Gertrude Robinson, "Team Teaching: A Second Look," Journal of Teacher Education, XII (December, 1961), 508.

⁴³Henry F. Olds, Jr., "A Taxonomy for Team Teaching," in Team Teaching, ed. by Judson T. Shaplin and Henry F. Olds, Jr. (New York: Harper and Row Publishers, 1964), p. 103.

allocation of teachers and pupils to instructional activities. Disadvantages can occur. New possibilities for confusion and logistical difficulty appear. Loss of security found in the old staffing patterns becomes noticeable. There are large increases in the amount of time required for planning, communication among team members, supervision, and evaluation.⁴⁴ Shaplin also concludes that there exists the possibility of a reduction in productivity if the team is not properly functioning.

Setting up a new staffing pattern may be more expensive in time, space, and money. The new approaches may cost more than either the self-contained or the departmental type of organization. The reason for this is simple. More varied types of curriculum materials are needed. The additional expense should mean a better education for the individual child. The cost of bringing teachers together for planning, either during the summer or after school hours, is an additional expense which is necessary if new organizational patterns are to succeed.

As usual, boards of education throughout the country give the green light for administrators and teachers to participate in team teaching patterns, but then fail to supply the necessary resources to carry out

⁴⁴Judson T. Shaplin, "Toward a Theoretical Rationale for Team Teaching," In Team Teaching, ed. by Judson T. Shaplin and Henry F. Olds, Jr. (New York: Harper and Row, 1964), p. 73.

the plan. In many cases, it is true, that an innovation can limp along without proper resources or facilities, but a barrier in the early stages of team organization can lead to ultimate failure.

It seemed clear to Shaplin that the staff utilization projects and particularly team teaching suffered from their initial preoccupation with staff organization.⁴⁵ In many cases the existing curriculum was inadequate and major revisions were necessary. The curriculum has to be differentiated in terms of the teaching skills. The curriculum also has to be structured in such a way that different grouping patterns are possible.

Team teaching has spread considerably in the secondary schools since 1956 with English, Social Studies, and Physical Education being the most affected subject areas.⁴⁶ In the same article, Singer noted that financial compensation was still uncommon and that more time was needed for team planning.

Olds suggests that if all teams that claim to work on a purely cooperative basis were carefully studied, a

⁴⁵Judson T. Shaplin, "Antecedents of Team Teaching," in Team Teaching, op. cit., p. 42.

⁴⁶Ira J. Singer, "Survey of Staff Utilization Practices in Six States," Bulletin of the National Association of Secondary School Principals, XLV (January, 1962), 5.

very clear vertical authority structure would be apparent.⁴⁷ It is important that once groupings and task allocations have been established at the beginning of a school year, that they should remain relatively fixed for the remainder of the year. It is theoretically possible for the team to form new groupings every day. Most designs of team teaching are not inherently that flexible. This kind of daily demand flexibility must be carefully planned for and built into the everyday operation.

There is some danger in having haphazard personnel plans or specialization which seeks temporary relief from an inflexible salary schedule.⁴⁸ If organizational staffing patterns are to be effective, the new structures must be affiliated with a rank or position type of classification system which brings order to the staffing arrangements.

Many problems need to be solved if staffing changes are made. Some of these are:

- (1) The procurement of effective team leadership and energetic staff members;
- (2) The definitions for the staffing pattern must be well written;

⁴⁷Henry F. Olds, Jr., "A Taxonomy for Team Teaching," in Team Teaching, op. cit., p. 119.

⁴⁸Charles S. Benson, The Economics of Public Education (Boston: Houghton Mifflin, 1961), p. 440.

- (3) The establishment of mutual respect and the alleviation of jealousy among team members;
- (4) The development of a willingness to experiment;
- (5) The obtaining of administrative support and the cooperation of other school departments.

It is clear at the moment, therefore, that people will join hierarchical teams. They will also accept a variance in salary according to responsibility.⁴⁹

Attitudes toward team teaching, as seen by the principals who reported experience with this innovation were generally favorable.⁵⁰ Both elementary and secondary principals who reported these plans strongly approved of this method of organization. They believed that teachers both in, and outside of, the team were favorable to the plan. Student teachers taught by teacher teams were reported as enthusiastic about the teaching teams, particularly at the secondary level.

Staff rearrangements can take shape in numerous formats. At Long Beach, New York, there were nine and

⁴⁹ Philip Lambert, "Team Teaching for Today's World," Teachers College Record, LXIV (March, 1963), 482.

⁵⁰ National Education Association, Project on the Instructional Program of the Public Schools, The Principals Look at the Schools: A Status Study of Selected Instructional Practices (Washington, D.C.: National Education Association, 1962), p. 19.

one-half more teachers on hand than were needed to meet the requirements of a dual progress plan.⁵¹ Instead of releasing teachers, administrators provided them with more unscheduled time, increased the number of sections in some classes, and undertook the initiation of a developmental reading program. The Lexington school system in an alliance between itself and Harvard's Graduate School of Education undertook a program called SUPRAD (School and University Program for Research and Development). They presented four findings:

1. Team teaching is feasible.
2. During the period of trial and development of the team teaching program, the children's achievement results did not suffer despite the shifts and turmoil that instituting such a program imposed.
3. The children's personal, emotional and social adjustments are at least as good as before, and there are indications that gains have been made.
4. The building influences program possibilities.⁵²

In a study of high school biology in Wausau, Wisconsin, it was reported that few differences were found between traditional staffing patterns and team teaching patterns. They were quick to point out that some minor objectives were not to be ignored. Some of these hidden gains were:

⁵¹Glen Heathers, Organizing Schools Through the Dual Progress Plan (Danville, Illinois: The Interstate Printers and Publishers, 1967), p. 33.

⁵²Educational Facilities Laboratories, School for Team Teaching (New York: Educational Facilities Laboratories, 1961), p. 40.

1. Improved teaching effectiveness even when teaching groups of traditional size.
2. An increase in the breadth and depth of subject coverage.
3. More interesting and stimulating class presentations.
4. A more challenging course for the students.⁵³

One of the most detailed designs is that offered in a report on the Norwalk Plan of Team Teaching.⁵⁴ This design specifies the team structure and the roles of team members, describes the interrelationships among team members, and outlines the steps to be taken in planning and implementing the instructional program. The model says little about how the program is to be placed in operation administratively.

Flexible Scheduling

For a number of years students of education, ranging from the philosopher to the curriculum worker have known that the conventional secondary schedule, regardless of its virtues as a system of educational bookkeeping, is learning nonsense. The need to break out of this straitjacket has been expressed for a long time. As is often the case in education, however, the

⁵³Milton O. Pella and Chris Poulos, "A Study of Team Teaching in High School Biology," Journal of Research in Science Teaching, I, No. 3 (1963), 239.

⁵⁴Glen Heathers, "Research on Team Teaching," in Team Teaching, ed. by Judson T. Shaplin and Henry F. Olds, Jr. (New York: Harper and Row Publishers, 1964), p. 311.

difference between knowing what is needed and knowing how to implement was enough to prohibit the change. Pleas to adapt, innovate, and experiment came forth. But business in most cases continued as usual in its routine form. In the case of a change in the conventional schedule, the engineering job needed between the idea and the act was not accomplished until recently. Perhaps it took the advent of the computer age to provide us with some of the necessary logistical skills.

In order for the flexible school to be viable, schedules adaptable to varied patterns of vertical and horizontal organization as well as to varied teaching methods must be developed. This need for adaptability has focused attention on the flexible schedule.

Many articles in the past few years have dealt with one or more aspects of flexible scheduling. The great bulk of writing has been argumentative. Little work has been done to show the connection between a particular schedule and increased flexibility.

When Dwight Allen first asked Oakford if it were practicable to use electronic computers to generate school schedules, the latter replied by asking if Allen could furnish a detailed description of the logic of schedule making.⁵⁵ Further investigation indicated that

⁵⁵Robert V. Oakford, "Machine Assistance for Constructing the High School Schedule: An Industrial Engineer's Report," Journal of Secondary Education, XXXVI (October, 1961), 375.

the process of school scheduling is not a routine logical procedure. The school executive is reluctant to delegate to his clerical staff the responsibility for making many of the compromises needed.

Because of the variables that must be considered in designing a schedule for a flexible school, many persons have viewed the computer as the answer. Machine programming, as now utilized, involves both a first phase in which the master schedule is devised with only limited use of a computer and a second phase in which the students are assigned by the computer to the previously prepared master schedule.

The administrator is faced with systematic attempts to reduce the elements of the problem to mechanically manageable descriptive dimensions. Besides the grouping of students, the machines will provide aid in inventories of resources, space utilization studies, and will probably yield useful insights into efficient approaches.⁵⁶

There are many ways to consider grouping students. Each school should seek a format that will work best for its students and staff. Results of achievement tests which stress concept formation should be a primary

⁵⁶Robert N. Bush, et al., "Using Machines to Make High School Schedules," School Review, LXIX (Spring, 1961), 48.

consideration in grouping. Suehr also points out that the interest factor is a key to any effective system of grouping.⁵⁷

Comprehensive instructional systems need to be done in this area. Very little has been done to examine the impact of schedule changes on student behavior. Man-machine systems should have the effect of turning educators toward the development of comprehensive instructional systems.

Flexible scheduling obtained its impetus from the Secondary Education Project at Stanford. Robert Bush and Dwight Allen led the way in definition building as well as technological development. Experimental attempts were made at developing a schedule by machine and including the assignment of students to the schedule in the same operation.

The New England School Development Council (NESDEC) used computers to provide member schools with flexible schedules. The chief computer service in their scheduling process dealt with the assignment phase and included the checking of prerequisites and conflicts. Additional services include attendance taking, test scoring, grade reporting, and other clerical tasks.

⁵⁷John Suehr, "Eight Questions and Answers Concerning Flexible Scheduling," Michigan Journal of Secondary Education, V (Spring, 1964), 6.

Each generation has seen the emergence of a variety of new administrative and instructional plans designed to bring flexibility into the school organization. These designs are made to allow for a greater variety of grouping of students for instruction, and to provide opportunities for individualization of instruction. What conclusions are reached about flexible grouping? Partridge states that, "One can safely conclude, however, that these experimental approaches are not worse educationally and cost no more financially than the more orthodox brands."⁵⁸ Trump and Baynham reviewed the studies of staff utilization connected with NASSP projects and drew some general conclusions about the effectiveness of the projects. They concluded that the level of achievement in large classes generally was as high as, and sometimes higher than, that in traditional classes.⁵⁹ They also concluded that students involved in the experimental group did develop better independent study habits than did students in other groups.

The concept of flexible scheduling mandates different size classes for different instructional encounters.

⁵⁸ Arthur Partridge, "Staff Utilization in Senior High Schools," Educational Leadership, XVIII (January, 1961), 221.

⁵⁹ Lloyd J. Trump and Dorsey Baynham, Focus on Change: Guide to Better Schools (Chicago: Rand McNally and Company, 1961), p. 75.

The setting of class size is an area of much controversy. The National Commission on Teacher Education and Professional Standards stated that,

. . . twenty-five pupils should be the maximum number enrolled in any class or grade taught by one teacher. The total number of pupil-class enrollments taught by a teacher of academic subjects in secondary or departmentalized schools should not exceed one hundred per day.⁶¹

Theories about optimum class size for instruction began to emerge after the NASSP studies. The advantages and limitations of independent study, small-group instruction, conventional-sized group instruction, and large-group instruction began to be understood.

There exists the possibility that class groups of twenty-five to thirty pupils long cherished as ideal, may prove on the whole to be somewhat less efficient and desirable than are smaller or larger groups. Anderson reviewed historical and emerging practices of pupil grouping and identified a trend away from fixed groups and toward fluid, flexible patterns.⁶² He suggested four instructional groups:

⁶¹Will French, J. Dan Hull, and B. L. Dodds, American High School Administration--Policy and Practice (New York: Rinehart and Company, 1951), p. 163.

⁶²Robert H. Anderson, "The Organization and Administration of Team Teaching," in Team Teaching, ed. by Judson T. Shaplin and Henry F. Olds, Jr. (New York: Harper and Row, 1964), p. 208.

1. Large groups--above 12 and up to 400 pupils.
2. Discussion groups--12 pupils or fewer.
3. Working and interacting groups--5 to 8 pupils.
4. Individual student.

Historically the questions of optimum class size and of staff adequacy were approached in terms of an assumed static grouping situation. Ratios of professional staff to pupils were sometimes examined with less interest than were the average sizes of fixed class groups. With the emergence of team teaching and flexible scheduling, historical convictions about class size and grouping practices have had to be modified. Class size and staffing adequacy directly relate to teacher utilization and deployment.

The optimum number of pupils has never been established with sufficient validity to receive universal acceptance.⁶³ The number of pupils is a critical factor, not only in the educational activities of teachers and learners, but in the size and arrangement of rooms in school buildings. Staffing patterns must be interpreted with respect to the context in which it is placed. Buildings and technology play an important part in determining the context.

Research on class size has been derived from two sources. The first comes from the professional's concern about the deleterious social and academic effects

⁶³Judson T. Shaplin and Henry F. Olds, Jr., "Editor's Introduction," Ibid., p. xiii.

presumed to be associated with overcrowded classes. The second source comes from administration's attempt to find better ways to use the available monies. Callahan noted that most of the inquiry into class size between 1911 and 1951 was related to the efforts of administrators to cut costs and to increase efficiency.⁶⁴ Various teacher organizations have in the past looked askance at experimentation with large group instruction. This reluctance to alter staffing patterns and class size groupings has shown some decrease since 1961.

One obstacle to more flexible use of personnel and time is the inflexibility of facilities. High school buildings must be designed for the flexible use of space if we want to promote the flexible use of student time, student talent, and teacher competence. Most buildings now under construction are obsolete before they leave the drawing boards.⁶⁵ These buildings will bind educators firmly to tradition.

There appear to be two basic approaches to the problem of providing new organizational spaces:

⁶⁴Raymond E. Callahan, Education and the Cult of Efficiency (Chicago: University of Chicago Press, 1962), p. 232.

⁶⁵Arthur Partridge, "Staff Utilization in Senior High Schools," Educational Leadership, XVIII (January, 1961), 221.

1. The creating of spaces that can adapt to different educational demands as the situation arises. Furniture, seating arrangements, partitions, etc. provide the constraints needed.
2. The creating of different kinds of permanent spaces that are used in different situations. The seminar room, lecture hall, educational resource center are examples of this mode.

The first approach seeks to provide convertible space. The second approach attempts to build into the structure itself the basic spaces of different sizes and types. The second approach, sometimes designated as planned variability, implies that enough is known about the reordering of student groups and teacher teams to permit the planning of spaces to fit the needs of groups of varying size and purpose.

Any discussion about flexibility must consider the simplest concepts of game theory. In decision making, each decision made limits the scope of successive choices and decisions.⁶⁶ Thus the concept of flexibility changes to a different concept. The new concept entails the establishment of rigorous priorities among choices with

⁶⁶Herbert A. Simon, Administrative Behavior (2nd ed.; New York: Macmillan, 1960), p. 67.

a full knowledge of the consequences which follow from alternative strategies.⁶⁷

Technological Changes

Concurrent with computerized scheduling has been revived interest in other mechanical aids for the teacher. Auto-instructional technology, as it becomes more widely used in schools, will force a reappraisal of the role of the teacher. Pressey, in originally advocating the adoption of machines, never believed that machines would replace teachers. Rather, the machine would take over some of the routine instructional tasks, giving the teacher more time for individualization and creative teaching. Advocates of teaching machines feel that teachers should welcome the opportunity to concentrate on those instructional functions which only a human teacher can fulfill. Educational functions are not, in practice, fragmented, and it is therefore difficult for teachers to see just how they will go about being creative in a classroom where subject matter is taught by programmed materials and teaching machines. Innovation in the schools must be built around the teacher. Teachers must be trained to use the instructional aids effectively. There appears to be a widespread feeling

⁶⁷Judson T. Shaplin, "Toward a Theoretical Rationale for Team Teaching," in Team Teaching, op. cit., p. 74.

among teachers that it detracts from their professionalism if they capitalize on the products of technology.⁶⁸

To replace the instructor with a teaching machine without respect to the motivation of the student or to require varying degrees of independent study without respect to the training of the students to play their new roles seems as unsupported by research as it is by common sense. Vital new roles will be played by media at Michigan State University. In 1962, President John Hannah outlined a program for the improvement of teaching. Included in this report were the following suggestions:

1. Greater responsibility by each student for his own learning.
2. Coordination of learning and teaching resources, re-definition of the role of faculty members, assistants, aides and students.
3. Development of new materials, aids, and methods.
4. Attention to physical and organization arrangements which foster learning and encourage independent study.⁶⁹

The Norwalk Plan reports significant increases in the use of overhead projectors, tape recorders, controlled readers, and open-circuit educational television; and heavy use has been made by the teachers of the resources of the system's curriculum-material center.⁷⁰

⁶⁸ Alfred Strogoff, "Business Takes A New Look at Education," Michigan Journal of Secondary Education, VIII (Winter, 1967), 11.

⁶⁹ John Barson, A Procedural and Cost Analysis Study of Media in Instructional Systems Development (East Lansing: Michigan State University, 1965), p. 1.

⁷⁰ Bryce Perkins, et al., "Teamwork Produces Audio-Visual Techniques," Grade Teacher, LXXVII (June, 1960), 55-72.

Program reorganization frequently requires new staffing patterns, but it also includes a manipulation of other variables, including time, space, equipment, and schedules. One must alter the organizational structure. Organizational structure refers to properties essentially internal to an organization, such as levels of authority. The mechanisms or processes by which the organization turns out its products or services are called organizational technology.

In the days prior to the American Revolution, manufacturing capability had not developed. Muskets in those days were made piece by piece by skilled gunmakers.⁷¹ Eli Whitney visualized being able to produce the interchangeable parts by "tooling up" for the work. The pre-investment of labor in the "tooling up" process allowed rapid production of interchangeable parts with improved quality. The result was that production occurred at a rapid rate once the tooling was completed and thus production occurred at reduced costs. Consideration should be given to "tooling up" for educational tasks.

There are some drawbacks to teaching aids.
Bruner commented:

⁷¹Robert N. Lehrer, The Management of Improvement (New York: Reinhold Publishing Corporation, 1965), p. 17.

The devices themselves cannot dictate their purpose. Unbridled enthusiasm for audio-visual aids or for teaching machines as panaceas overlooks the paramount importance of what one is trying to accomplish.⁷²

Organizational innovation will not by itself solve non-organizational problems.

Teacher Aides

It ought not be necessary to argue that the notion of introducing aides into the classrooms of the country is worthy of serious consideration. All who have had experience within a modern hospital know how necessary the aide is to its efficient operation. The aides in the hospital make it possible for nurses to engage in the business of nursing.

Schools which have used teacher assistants for several years point out certain advantages. Differentiation can now be made between professional responsibilities and other duties which are subprofessional in nature. A second advantage is the reduction of teaching load without increasing the cost of education.

Park concluded that the results of working with teacher aides in the elementary schools for more than four years argued for an attempt to apply some of these ideas

⁷²J. S. Bruner, The Process of Education (Cambridge, Mass.: Harvard University Press, 1961), p. 84.

in secondary schools.⁷³ Since 1959 the Secondary Schools Division of California has employed upper division and graduate students to assist classroom teachers. Since 1963, a training certificate has been required under California law, so the college students are now credentialed employees serving as paraprofessionals and called "teacher assistants."⁷⁴

Consideration of how the professional spends his time gives valuable insight into the problem. The National Education Association reported the following job analysis (Figure 1).⁷⁵

Evanston High School recognizing the implications of the analysis sought to change the professional's time allocation by relieving him of nonprofessional tasks.

Team teaching provides the kind of organization in which non-professional teaching assistants and clerical aides may be used with maximum efficiency. These non-professional members of the team can perform many tasks that do not require professional competency. It is estimated that approximately one-third

⁷³Charles B. Park, "Increasing Teacher Competency by Using Teacher-Aides," Journal of Secondary Education, XXXI (November, 1956), 383.

⁷⁴Dwight E. Twist, "Improving Instruction Through More Effective Utilization of Certificated Personnel," Journal of Secondary Education, XLIII, No. 1 (January, 1968), 30.

⁷⁵National Education Association, "How the High School Teacher Divides the Week," in NEA Research Bulletin (Washington, D.C.: National Education Association, 1962), 87.

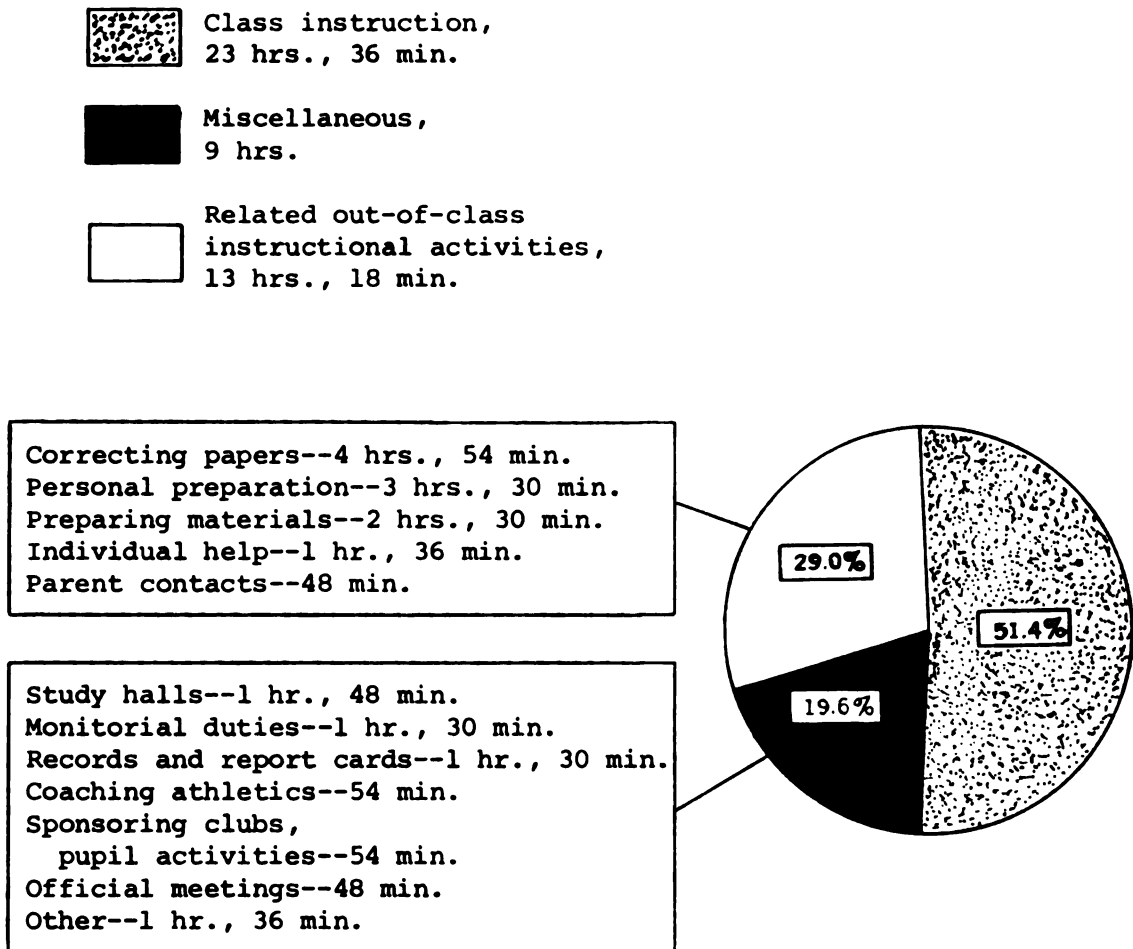


Figure 1

How the High School Teacher Divides the Week
(Average work week of 45 hours,
54 minutes)

Source: National Education Association, NEA Research Bulletin (Washington, D.C.: The Association, October, 1962), p. 87.

of the duties typically done by most teachers could be done as well or better by teaching assistants or clerical aides.⁷⁶

It should be remembered that the presence of subordinate teaching personnel has been a familiar feature of the American educational system since its inception. In the last decade the position of super-ordinate has been created.

We already have a great many persons employed as nonprofessionals in the school system. There were about 120,000 employed under Title I of the Elementary and Secondary Education Act in 1968.⁷⁷ For the most part they get very little money and are offered few meaningful tasks.

The origin of paraprofessionals may be traced back to the monitorial system, developed principally by Bell and Lancaster. This method used advanced students as monitors so that the teacher could teach a larger number of students. It has been suggested that the schools of the future will depend heavily upon clerical assistants.⁷⁸

⁷⁶"Our Attempts to Assess New Practices," Evanston School District, Evanston, Illinois, December, 1963. (Mimeographed paper.)

⁷⁷Arthur Pearl, "Staff Differentiation and the Preparation of Educational Personnel," American Association of Colleges for Teacher Education Yearbook, XXI (1968), 103.

⁷⁸Robert N. Bush and Dwight W. Allen, A New Design for High School Education (New York: McGraw-Hill Book Company, 1964), p. 155.

Even in some very large and apparently well-organized systems, the clerical load falls upon the teachers and principals of a school. The burden of clerical work has been allowed to develop without proper examination of the function it serves. A check of the size of the clerical staff in the medium-to-large school systems indicates that this group of employees make up for 7-10 per cent of the total staff.⁷⁹

Most of the research on the use of auxiliary persons in the schools has been aimed at working out minimal roles for such personnel and proving that they do not harm the children who are exposed to them. A number of projects have sought to identify the kinds of tasks the paraprofessional can do.^{80, 81}

A great deal has been written on the use of the paraprofessionals. There seems to be three competencies needed by these persons.

⁷⁹H. E. Moore and N. B. Walters, Personnel Administration in Education (New York: Harper and Brothers, 1955), p. 74.

⁸⁰J. W. Rioux, "At the Teacher's Right Hand," American Education, II (December, 1965), 5.

⁸¹"Initial Application for Operational Funds, E.S.E.A., P.L. 89-10, Title III," Wayne County Intermediate School District Paraprofessional Project (Detroit: Wayne County Intermediate School District, 1968), p. 89.

- (1) Manipulative skills;
- (2) Theoretical components of teacher education;
- (3) Developing interpersonal skills.

Beggs reports on an outline of an operable secondary school program which utilizes volunteer and paid auxiliary personnel.⁸² He describes methods to be employed in obtaining teacher aides.

There are problems in the teacher aide program too. There is difficulty in getting substitutes, lack of time for in-service training plus the regular disciplinary problems. Teacher organizations fear the encroachment upon their professional status by the paraprofessionals. Their fear can be allayed by a study of the Yale-Fairfield Study of Elementary teaching, conducted at Fairfield, Connecticut. The study showed that assistants tended to increase the professional position of teachers provided their use did not replace the use of qualified teachers when professional direction was needed.⁸³

The legal bases for classifying the nonteaching personnel vary widely in the various school districts of the United States. Generally, the board of education

⁸²David W. Beggs, The Decatur-Lakeview Plan: A Practical Application of the Trump Plan (Englewood Cliffs, N.J.: Prentice Hall, 1964), p. 266.

⁸³Marilyn H. Cutler, "Teacher Aides are Worth the Effort," Nation's Schools, LXXIII (April, 1964), 116.

policy is the principal element of control. In the larger cities, the legal controls are especially varied. In a survey of cities over 200,000 people in the United States, Roelfs found the following distribution of controls:

1. Board of education policy	24 systems
2. State constitution or statutes	7 systems
3. City charter or municipal ordinance	4 systems
4. State law and city charter	12 systems
5. Special state legislation	1 system
6. Federal civil service	1 system ⁸⁴

Clearly the resources available to education and the competing demands within education at the professional level will not allow the introduction of nonprofessional personnel to be on an additive basis.⁸⁵ Most pilot programs using the nonprofessional represented an added personnel cost. One project (in Norwalk, Connecticut) utilized nonprofessionals without changing the total payroll.

Will the staffing patterns cost more money? Trump suggested that as a first step, it is possible to provide clerical assistants and instruction without adding to

⁸⁴R. M. Roelfs, "Job Classification Procedures for Non-Certificated Positions in Large City School Systems" (unpublished Ph.D. dissertation, University of Colorado, 1951), p. 284. Cited by H. E. Moore and N. B. Walters, Personnel Administration in Education (New York: Harper and Brothers, 1955), p. 78.

⁸⁵Judson T. Shaplin, "Toward a Theoretical Rationale for Team Teaching," in Team Teaching, ed. by Judson T. Shaplin and Henry F. Olds, Jr. (New York: Harper and Row, 1964), p. 77.

staff cost.⁸⁶ In the final analysis, professional teachers will be paid salaries considerably above those now being paid. He contends that the additional expenditures will be warranted, because of better use of competencies.

Although it seems clear that nonprofessionals can and should be used more widely in the schools than they have been used, it remains to be learned by research whether a reduction in the professional staff is warranted or desirable. The waste of talent of certified teachers on routine and minor tasks becomes more evident as teachers' total responsibilities are examined. However, where the line should be drawn between professional and nonprofessional tasks is by no means clear at this point.

Most people assume that quality education will cost more. The important consideration is to find the relationship between economical input and academic output. It is important to know what extra quality may be procured by additional paraprofessional help. Many schools attempt to run experimental programs and find themselves failing to anticipate increased costs of this experimentation.⁸⁷

⁸⁶J. L. Trump, "Some Questions and Answers About Suggestions for Improving Staff Utilization," NASSP, XLV (January, 1961), 26.

⁸⁷Kenneth W. Reber, "A Study of the Persistence Tendencies of Foundation-Supported Innovations in Organization for Instruction in Selected School Systems" (unpublished Ph.D. dissertation, Michigan State University, 1964), p. 72.

Taking the teacher out of such nonprofessional responsibilities as cafeteria duty, study hall supervision, and clerical functions must not be interpreted as a move to reduce the teacher-student relationship to a simple classroom teaching situation. More and more teachers are becoming commuters to school and opportunities for them to relate to students in roles outside of the classroom are being reduced.⁸⁸

Consideration must be given to the use of para-professionals in the schools. Careful planning in order to eliminate overlapping is needed. The planning stage should include division of responsibility and a working agreement for the division of authority. Planning should provide for a number of aspects:

- (1) The services to be performed by the para-professional;
- (2) The process of selection, which also involves the qualifications;
- (3) Job classification and descriptions;
- (4) In-service training;
- (5) Contractual consideration, such as wage, working hours, vacations, etc.

⁸⁸Arnold Glovinsky and Joseph P. Johns, "Para-professionals: 26 Ways to Use Them," School Management, XIII, No. 2 (February, 1969), 48.

Evaluation

The development of differentiated staffing in common with the development of any other innovation in education practice, should proceed through four inter-related phases: design, implementation, evaluation, and dissemination. Based on an analysis of the reports of the various staff utilization schools, it is obvious that many of the schools experienced some difficulty in developing and carrying through evaluation procedures which would produce reliable evidence of the results of experimentation.⁸⁹

The pressures from critics of innovations often force innovators to proceed too quickly to assess the effects of staff utilization patterns on pupil achievement. Another problem affecting this type of field research is that systems thinking has come slowly to the area of public education. Innovations like differentiated staffing cannot be successful without full-scale organizational change occurring.

Research in the field of staff utilization tends to be complicated because usually a given school is involved simultaneously with two or more of the new or emerging arrangements. The school normally ends up

⁸⁹Kenneth W. Reber, "A Study of the Persistence Tendencies of Foundation Supported Innovations in Organization for Instruction in Selected School Systems," op. cit., p. 80.

with various patterns of collaborative or cooperative teaching. Greater use of resources proceed along with the addition of teacher aides. Schedule modifications and variable-sized instructional groups are generally associated with such experimentation. As a result, systematic inquiry into the usefulness of any of these experiments is difficult.

Numerous evaluative studies of team teaching employ a control group design in comparing a team teaching plan with another organizational plan. Serious difficulties must be surmounted in designing an evaluation using a control group because of the necessity of matching two schools.⁹⁰ Any attempt at assessment of educational practices is, of necessity, made from a value base. In most previously published reports, an attempt has been made to assess practices in team teaching by utilizing three types of data.

1. Achievement as measured by standardized or by locally constructed tests.
2. Teacher opinions (sometimes buttressed by students and parent opinions).
3. Per-pupil costs.⁹¹

The results of these studies produced the following conclusions:

⁹⁰Esin Kaya, "Problems in Evaluating Education Plans in the School Setting," The Journal of Education Sociology, XXXIV (April, 1961), 355.

⁹¹Harold D. Drummond, "Team Teaching: An Assessment," Educational Leadership, XIX (December, 1961), 166.

1. Students do as well or perhaps a little better on standardized tests when taught by team teaching. Usually the differences are not significant.
2. Teachers, generally, are willing to continue the team approach, although there are numerous indications that not all teachers make good team members.
3. Students and their parents generally favor what has been tried. Many learners are at first skeptical or negative, but as teachers gain confidence and competence in their changed roles, reports from them indicate positive support for the team approach.
4. Costs rise slightly.⁹²

Most research on staff utilization has relied mainly on the questionnaire method. Lambert stated that no valid scientific study has been made of team teaching as a whole, and predicted that there will be no such study in the next ten or fifteen years.⁹³ Woodring was also quite critical of the evaluation of staffing patterns involving team teaching. He concluded that:

An adequate evaluation of team teaching or the self-contained classroom which it is designed to replace will require the establishment of a better criterion than has yet been applied. It will be necessary to measure long-term changes in the students as a result of experience in schools using the new as against the old staffing pattern. For a time the Hawthorne effect will be at work. The variables obviously are many, and difficult to control. But until such a criterion is used, reliance must be placed on the judgment of professional people who are unlikely to agree about the outcomes.⁹⁴

⁹² Ibid., p. 166.

⁹³ Philip Lambert, "Team Teaching for Today's World," Teachers College Record, LXIV (March, 1963), 480.

⁹⁴ Paul Woodring, "Reform Movements from the Point of View of Psychological Theory," in Theories of Learning and Instruction, Sixty-Third Yearbook, Part I, ed. by Ernest R. Hilgard (Chicago: University of Chicago Press, 1964), p. 293.

Most research aims at establishing the positive effects of an experiment. Staff utilization studies usually omit the consideration of counterproductive elements. Problems occur in the reorganization of a teaching staff. There is a laxity in reinvesting the "saved time." Inequalities in assuming the responsibilities for the work of the team develop. The possibility exists that there will be a dissipation of pupil-teacher rapport. Inadequate facilities is another common problem.

There are several areas that require further investigation and research. Little has been done on the methods of implementation. Research should be conducted on group dynamics pertaining to team membership. The effect of staffing patterns upon the administration of a building should be measured.

Evaluation relative to experimentation in changing staffing patterns has used some of the following measures:

- (1) Standardized achievement tests;
- (2) Teacher-made tests using multiple choice, true-false, or completion-type tests to measure information acquisition and understanding;
- (3) Observation to assess work-study skills;
- (4) Informal observation to assess power of thinking;
Students are made to draw inferences or

interpret verbal, graphic, and statistical data in specially constructed test exercises.

- (5) Observation, writing of anecdotal records, rating scales, and check lists may be used in finding attitudes;
- (6) Some kind of standard inventory may be used in measuring interests;
- (7) Some kind of standardized self-descriptive personality test or rating scale may be used to measure personal-social adaptability;
- (8) Use of sociometric techniques.

The little objective research that has been done has been limited in scope, incomplete in statistical data, and lacking in both a comprehensive rationale and an adequate research design.

Differentiated Staffing

A definition of teaching has many facets. One definition that would seem to fit the context of this thesis is set forth by Arnstine. Teaching is a "performance that influences a person to act in a certain way, deliberately specified by someone else: furthermore, this performance must in some way enable that person to so act when it is appropriate, on future

occasions without being similarly prompted."⁹⁵ This definition does not mandate a traditional school organization. It permits a teacher to act as a director of learning. It does not insist on daily contact with the student. A ruling of the Supreme Court, Kings County, New York, stated: "The day in which the concept was held that teaching duty was limited to classroom instruction has long since passed. . . . "⁹⁶

The structural elements of education are teachers, subjects, students, methods, times, and places. Innovations such as television, team teaching, ungraded classes, the use of paraprofessionals, and the flexible scheduling of large and small group instruction require significant shifts in the normal arrangements of these structural elements.

During the 1950's and the 1960's the conception of staffing the schools with only one kind of person was replaced with the conception of the man-machine systems. Technicians, lower-order personnel, technological devices, and instructional resource centers were brought into the institutional patterns. Differentiated staffing is a

⁹⁵Donald Arnstine, "Some Problems in Teaching Values," Educational Theory, II (1961), 159.

⁹⁶Parrish, et al. v. Moss, et al., 106 N.Y.S. 2d, 577 p. 584 (1951).

natural outgrowth of this movement. Dwight Allen, from his position as an educational innovator, made the following comment:

It seems to me, and I might as well express my bias immediately, that the notion of differentiation of staff will be the preeminently preoccupying notion of the profession over the next decade. I see no other issue that comes even close to the issue of staff differentiation in terms of importance for professional development.⁹⁷

Historically the field of education has been slow to respond to a subdivision of labor. Preoccupation with the problems of improving the qualifications and status of the teaching force has been a paramount issue. Teacher turnover has been another consideration, as well as the increasing demand for new teachers.

In the face of a shortage of necessary labor, management in fields other than teaching have handled the perpetual problem differently. They have examined job requirements and attempted to make a division of labor so that the professional could be strategically located in the organization and could be supported by the necessary cadre of technicians and other types of assistants. To gain the advantages of specialized skill in a large organization, the work is sub-divided, so far as possible,

⁹⁷ Dwight W. Allen, "The Education Professions Development Act and Staff Differentiation," American Association of Colleges for Teacher Education--Yearbook (Oneonta, New York, XXI, 1968).

in such a way that all processes requiring a particular skill can be performed by persons possessing that skill.⁹⁸

Some of the assumptions which seem to undergird current proposals for school practice and staff utilization are:

1. The best teachers should be given extra pay and recognition for instructional leadership.
2. The particular talents of teachers should be used.
3. Members of a faculty cannot function effectively in isolation.
4. Teachers should have personal knowledge of their students.
5. Teachers should be freed from routine clerical tasks.
6. Teachers have an increased responsibility for assisting in the training and educating of new members of the profession.
7. Teachers should keep up with the growth of knowledge, particularly in their own subject matter areas.
8. Effective programs for curriculum development require teacher responsibility for and involvement in innovations.⁹⁹

Differentiated staffing is an outgrowth and refinement of team teaching. It aspires to bring a wide range of manpower to bear on educational problems. Two kinds of staff differentiation are possible. Horizontal differentiation involves the establishment of more jobs at the same skill level. The subject material is further subdivided into areas of specialization. A second type

⁹⁸Herbert A. Simon, Administrative Behavior (2nd ed.; New York: Macmillan, 1960), p. 137.

⁹⁹John A. Brownell and Harris A. Taylor, "Theoretical Perspective for Teaching Teams," Phi Delta Kappan, XLIII (January, 1962), 150.

of differentiation can be called vertical differentiation. In this arrangement, the teacher is given a supportive staff consisting of teachers and paraprofessionals.

The major goals of differentiated staffing are aimed at increasing expertise and responsibility for teachers. Seldom is a goal mentioned that relates to student learning. The most common statement made related to students is the goal of providing for individual differences. The most commonly stated goals of differentiated staffing are:

- (1) Transfer of managerial functions to teachers;
- (2) Development of new in-service training;
- (3) Creation of a problem-solving unit;
- (4) Provide for a career pattern in teaching;
- (5) Permits more efficient use of the professional force;
- (6) Demands efficient utilization of resources.

The NEA National Commission on Teacher Education and Professional Standards (CTEPS) believes that the differentiated staffing concept is a promising idea worthy of development and testing and that it should receive the opportunity of an objective trial.¹⁰⁰

¹⁰⁰ National Commission on Teacher Education and Professional Standards, "A Position Statement on the Concept of Differentiated Staffing" (Washington, D.C.: National Education Association, 1969), p. 1.

Supported by its executive secretary, Roy A. Edelfelt, this commission supports the idea of having salary differentials based on differences in degrees of responsibility.

The American Federation of Teachers (AFT) has not taken a formal position on differentiated staffing yet, but President David Selden gave it the back of his hand at the organization's 1969 convention.¹⁰¹ Mr. Selden feels that the idea of differentiated staffing originated outside of either NEA or AFT and was imposed upon teachers without mutual consent. This organization feels that it is another administrative scheme similar to merit pay.

Attention in the past has been given to staffing patterns by the NASSP. In the year 1956, the Commission on the Experimental Study of the Utilization of the Staff in the Secondary School was created by the Executive Committee of the organization to assess high school programs. The purpose of the Commission was to find new ways of producing quality education in the face of a teacher shortage. From observation of one of the programs, reactions of participants and the results of achievement tests, the following inferences were made:

¹⁰¹Education U.S.A. Special Report, Differentiating Staffing in Schools (Washington, D.C.: National School Public Relations Association, 1970), p. 8.

1. The achievement of pupils appears to be equal to or greater than that of pupils of comparable ability in regular classes.
2. Pupils have more opportunities to develop the ability to do independent research and to engage in self-directed learning experiences.
3. Teachers have more opportunities to meet the differential needs of high-ability and low-ability pupils, for enrichment and remedial work.
4. Professional growth of the participating teachers was one of the most important outcomes of the project.
5. There are a number of different ways in which teams might be organized and function--no one best approach was identified during the two years of the project.¹⁰²

Some consideration has been given in research to the concept of staffing adequacy. The Review of Educational Research mentions three studies in a 1961 article.¹⁰³ In the first study, Landerholm (1960) found that the most adaptable school systems, as measured by Mort and others, had an average numerical staffing adequacy index of 68 professionals per 1,000 pupil units; employed 18 professional specialists per 1,000 pupil units; and kept class size smaller than did less adaptable schools. In the second study, Vincent, McKenna, and Swanson (1960) examined the relationship

¹⁰²Lee L. Bloomenshine and Malcomb T. Brown, "San Diego, California Conducts Two-Year Experiment with Team Teaching," Bulletin of the National Association of Secondary School Principals, XLV (January, 1961), 147-66.

¹⁰³D. Richard Wynn and Richard W. Deremer, "Staff Utilization, Development, and Evaluation, Review of Educational Research, XXXI, No. 4 (October, 1961), 396.

between numerical staffing adequacy and adaptability in 132 school systems and concluded that the larger classes should be instituted only, if at all, as a tactic for paying higher salaries to obtain better teachers. The last study reports the judgment of administrators, supervisors, specialists, and teachers in 12 suburban school systems. This work by Wynn (1958) developed guides and standards for staffing adequacy.

In the past school districts had two alternatives open to them as they staffed a school system. They could hire more professionals at smaller salaries or they could hire fewer professionals at higher salaries. Recently, school districts have acquired the ability to allocate greater or lesser funds to resources with which the staff works. Just as they can make choices in the deployment of professional staff, they can now also make choices in the kind and number of supportive staff they provide for the professional.

McKenna classified staffing patterns into eight patterns of professional staff deployment.¹⁰⁴ The patterns identified represented variants of local choice about the number of teachers at the elementary level, numbers of teachers at the secondary level, and number of professional specialists in relation to a given number

¹⁰⁴Bernard H. McKenna, Staffing the Schools (New York: Teachers College, Columbia University Bureau of Publications, 1965), p. 29.

of pupils. He points out that expenditure level seems to be a key factor in providing the "rich soil" for optimum staffing patterns. The search for optimum staffing patterns seems to be enhanced by expenditure levels that permit additional personnel to be provided besides the teachers.

Studies by the Metropolitan School Study Council established the following conclusions:

1. Numerical staff adequacy is a better predictor of school quality than average class size.
2. Individuals are more apt to get attention in small classes.
3. It is patently indefensible to argue for any arbitrary, common-size class. Local conditions, purposes, quality desired in education and the abilities of the teachers must be weighed.
4. Non-classroom personnel are at least as important as classroom teachers.¹⁰⁵

In considering the quality of a school an investigation is needed into the three interrelated net current expenditure components of (1) the number of persons employed, (2) the level of professional salaries, and (3) the amount spent upon teaching supplies and other enriching materials.

There are considerable combinations of these three variables. Different schools use different combinations. One of the important conclusions of a study

¹⁰⁵D. Richard Wynn, Organization of Public Schools (Washington, D.C.: The Center for Applied Research in Education Inc., 1964), p. 72.

conducted by Swanson was the optimum apportionment of funds varies according to the general level of expenditure.¹⁰⁶

Generally educators believe that they are the pivotal point in the quality of a school. Another factor is important. A Pennsylvania study showed that almost anywhere you scratch a community you find a relationship with the quality of the schools.¹⁰⁷ It also pointed out that there was a low relationship of quality with most of the measures of the teaching staff which had commonly been thought of as strong indicators of school quality.

Little research has been done since 1961 on staffing adequacy as such. Most of the research has been directed at various patterns of student grouping and subgrouping. Much of the literature is descriptive and written to justify educational programs.

The success of differentiated staffing rests upon the ability of team members to merge their combined potentials into increased opportunity for the students. In most of the experimentation on changing staffing

¹⁰⁶ Austin D. Swanson, Effective Administrative Strategy--An Analysis of Several Aspects of Staff Recruitment and Deployment (New York: Institute of Administrative Research--Teachers College, Columbia University, 1961), p. 19.

¹⁰⁷ Paul R. Mort, "School and Community Relationships to School Quality," Teachers College Record, LV (January, 1954), 201.

patterns, students are treated more like young adults and given more responsibility for their self-direction. These projects usually provide that students be given additional responsibilities as they respond.

The reactions of students revealed that they thought that experimental classes provided more opportunity than regular classes. They considered it advantageous to be in classes with teaching teams and modified schedules. Some of the advantages suggested by Johnson and Lobb are:

1. Using other kinds of printed materials besides the textbook.
2. Hearing about the experiences of other students.
3. Helping the teacher plan some of the classwork.
4. Learning to think for oneself.
5. Getting individual help when needed.
6. Assuming some leadership in class activities.¹⁰⁸

A clear-cut advantage of differentiated staffing is the opportunity for the student to come into close proximity with top performance. He experiences a chilling feeling when the best perform. The research on modeling tells us that if we would maximize subject matter approach tendencies in our students we must exhibit those behaviors ourselves.¹⁰⁹ Students learn more by imitation if the

¹⁰⁸Robert H. Johnson and Delbert M. Lobb, "Jefferson County, Colorado Completes Three-Year Study of Staffing, Class Size, Programming, and Scheduling," Bulletin of the National Association of Secondary School Principals, XLV (January, 1961), 74.

¹⁰⁹Albert Bandura, "Social Learning Through Imitation," in Nebraska Symposium on Motivation, ed. by M. R. Jones (Lincoln, Nebraska: University of Nebraska Press, 1962), p. 211.

model has prestige for the student. The student will perform more of what he has seen the model doing. A distinct disadvantage lurks in the background with differentiated staffing. Instruction tends to become more formal and less spontaneous. In hierarchal plans, young and inexperienced teachers undoubtedly are used with the small groups. Learners, as a result get individual help from teachers who probably are least qualified to give it.¹¹⁰

Goldberg's conclusion of research summarized the expression of the need for differentiating teachers to improve students' learning.

A significant implication of the studies of teacher characteristics, teaching process, and teachable groups is the recognition that variations in pupil attainment in the classroom are related to variations in teacher performance, and that a particular teacher affects different pupils differently.¹¹¹

Waetjen's conclusion, too, from a finding of Flanders' studies of teacher influence by means of interaction analyses, was a testimony to flexibility in teaching style.

Students who achieved most and had significantly high scores on aptitude tests were in classes exposed to flexible patterns of teaching response.

¹¹⁰Harold D. Drummond, "Team Teaching: An Assessment," Educational Leadership, XIX (December, 1961), 164.

¹¹¹Miriam Goldberg, "Adapting Teacher Style to Pupil Differences: Teachers for Disadvantaged Children," Merrill-Palmer Quarterly, X (April, 1964), 166.

. . . The greater the teacher's repertoire of teaching styles, the more likely there was to be greater student achievement. . . . ¹¹²

Recent models of staff differentiation did not make the assumption that teachers ought to be organized according to how students best achieve. Most plans provide a basis for differentiation by cataloguing what teachers do. These designs for differentiation are generally aimed at raising the professional person with little consideration given to the learner. Any organizational shift which alters variables and produces no gain in student output is pure folly.

When Temple City, California undertook to differentiate the teaching staff, a basic assumption was behind the rationale.

The assumption is made that a differentiated staffing plan will improve the teaching profession and thus increase the effectiveness of instruction. Since such a plan has not been tried before, evidence to the contrary cannot help but be conjectural at this point.¹¹³

The district realized that it was embarking on a new frontier and that better instruction would result. They tended, therefore, to minimize the difficulties in breaking the organizational pattern that had persisted.

¹¹²Walter B. Waetjen, "Recent Analyses of Teaching," The Bulletin of the National Association of Secondary School Principals, L (December, 1966), 26.

¹¹³"Temple City Differentiated Staffing Project" (unpublished brochure, Temple City, California, September, 1967), p. 2.

Closely related, but clearly distinguishable from the native curiosity of the student, is the need to not be bored. From the consistency of a schedule and an organized round of life comes the security to predict in advance. Change is the greatest challenge to the individual's coping skills and the highest purpose of a useful education.¹¹⁴ Any school which embarks upon the experimental path continuously will serve the learner immensely. People will do anything to break daily routine. Somewhere between complete organization and chaos an individual seeks a balance. The administration has the job of taking the organization to a similar point.

It is important that any plan for reorganization of a teaching staff takes into account the need to train teachers to make use of new-found time. The findings of the Pugh study on small group learning showed that even in groups of twenty or less, there were many instances in which teachers were not taking fullest advantage of the situation to assume responsibility for individual learning.¹¹⁵ One of the major assumptions of the

¹¹⁴Martin Haberman, The Essence of Teaching: A Basis for Differentiating Roles (Washington, D.C.: National Commission on Teacher Education and Professional Standards, National Education Association, 1970), p. 8.

¹¹⁵James B. Pugh, Jr., "An Analysis of the Characteristics of Teaching and Learning Related to Pupil-Teacher Ratio" (unpublished Ed.D. Project, New York, Teachers College, Columbia University, 1963). Quoted in Bernard McKenna, Staffing the Schools (New York: Teachers College, Columbia University Bureau of Publications, 1965), p. 51.

movement to differentiate roles in education is that such differentiation will lead to more efficient utilization of professional personnel.

The emerging consensus of educational discussion more and more suggests that learners are better served by a variety of instructional groupings. The range of achievement within an unsegregated class places an almost impossible burden on teachers trying to satisfy individual differences. The idea of the omnicapable teacher is now an outworn ideal. Learners must be served by different organizational patterns. Education is gearing up to keep pace with change. There is a necessity to bring professionals together to perform the educative arts that a traditional staffing pattern could never carry off.

Teachers are taking a militant stand and are fighting for one thing or another. This activism is often oversimplified and summed up as a push for more money and more benefits. The public at all levels has demonstrated its acceptance of the crucial role of education as an instrument of national policy. The new climate of public opinion has encouraged teachers to feel more confident that their work is important. They feel justified in demanding greater recognition for their services. They seek a more central seat at the educational decision-making table. Differentiated staffing should provide the teacher with this benefit.

Teachers as professionals should recognize that the negotiation process has contributed to other developments such as formalization, legalization, standardization, and centralization. Certain agreements must be reached by some process. This is the standardizing procedure and while it has been resisted when it comes from the central office, it can now be accepted when it comes from a different group.

Bilateral management describes the new organizational concept that has been established. Planned or otherwise, unilateral management (where the board decides and passes the word down to the teachers) turns into bilateral management (teachers are involved, consulted, and their agreement is sought on matters that affect their personal and professional welfare).¹¹⁶

Differentiated staffing should provide the teacher with more power. The search for power equalization touches the administrative dimension of authority when teacher organizations seek greater control over the rules and regulations which govern their behavior. There is some question as to whether an increase in teacher power will automatically result in less power for administration and governing board of educations. Tannebaum, for

¹¹⁶William H. Medlyn, "First Swallow Hard: 'Bilateral' Management is What Teachers are After," American School Board Journal, CLVI (January, 1969), 10.

example, suggests that the "power pie" is variable and not fixed. He argues that the power of both managers and workers in industry has expanded as a result of collective bargaining agreements.¹¹⁷ It seems reasonable to assume that as teachers acquire increased status by new staffing patterns, they should acquire greater control over the allocation of financial and human resources available to the enterprise. They are most directly concerned with the implementation of the purposes of the enterprise.

Rugh presented a penetrating analysis of the frustrations and of the problems resulting from the public's exaggerated expectations of schools.¹¹⁸ He concluded that the public credited teachers with too much potential, set goals beyond the level of teacher competence, and indulged in wishful thinking about "what schools should do as against what they can do."

The false security of tenure and automatic increments, coupled with the deadening effects on an individual of knowing that he cannot better his salary beyond a certain predetermined increment, is likely to create an attitude of bitterness in the profession. In Stahl's words,

¹¹⁷A. S. Tannenbaum, "Unions," in Handbook of Organizations, ed. by J. G. March (Chicago: Rand McNally, 1965), pp. 710-63.

¹¹⁸Douglas Rugh, "The American Teacher-Victim of Role Inflation," Journal of Teacher Education, XII (March, 1961), 54.

Opportunity for advancement and the chance to make the best possible use of one's capacities, form one of the well springs of human motivation--no system of increases, unless accompanied by recognition of superior performance, is adequate to secure the utmost incentive value from compensation.¹¹⁹

In a country such as the United States, where success is measured largely in terms of advancement, it is fundamental that the employee has goals toward which to strive if he is to make his maximum contribution.

Sergiovanni drew some interesting conclusions on teacher morale:

1. A good salary structure, a benefits program, adequate communications system, good interpersonal relationships, and other conditions associated with the environment of work are important factors in preventing job dissatisfaction for "professional" teachers.
2. The environment of work factors, however, are hygienic in that they prevent trouble but they are not potent enough to motivate teachers to approach self fulfillment. They lack the power to provide job satisfaction for professionally oriented teachers.
3. Job satisfaction depends upon opportunities for teachers to experience personal and professional success, to have responsibility that counts to them, and to receive recognition for their professional efforts. The absence of these factors will tend not to affect job dissatisfaction of teachers but job satisfaction depends upon their presence.¹²⁰

¹¹⁹O. Glenn Stahl, Public Personnel Administration (New York: Harper and Brothers, 1956), p. 235.

¹²⁰Thomas J. Sergiovanni, "New Evidence on Teacher Morale: A Proposal for Staff Differentiation," The North Central Association Quarterly, XLII (Winter, 1968), 266.

We need supportive and adequate supervision. We need a structure that permits self-fulfillment. Teachers need help if they are to make effective decisions about instruction at the operational level. The organizational plans must promote smooth day-to-day operational decisions.

Weber, the father of modern organization analysis, defines authority as legitimated power. Legitimation refers to acceptability by subordinates of the exercise of power by their superordinates, in particular the exercise of influence over organizational behavior. The authority structure is a direct derivative of the organizational need to monitor the performance of its members. The source of discipline within a bureaucracy is not the colleague group, but the hierarchy of authority. Performance is controlled by directives, rather than by self-imposed standards and peer-group surveillance.

Something must eventually be done to help teachers achieve their professional destiny. Differentiated staffing aims to permit teachers to achieve their professional destiny. One of the first things that must be done is to stop pretending that all teachers make the same contribution. That myth lingers with us. New ways must be found to place teachers in new organizational positions. The status of an organizational position is its location in the rank order of relative influences in the organization. When persons holding positions of unequal status interact, the higher-ranking member ordinarily exercises

the greater influence and modifies the behavior of the other member. Most organizations take pains to make status as definite as possible.

It is understandable that the public does not always like the school's organizational patterns. "Many board members take a business firm (as the model) of how to organize the school or college."¹²¹ The business model stresses clear lines of authority and sharply demarcated jurisdictions for which officials are held responsible. Bureaucracies tend to develop increasingly complex patterns of authority.

A direct benefit to the teacher during differentiated staffing is the increased responsibility acquired by status change. The teacher acquires a greater control over his environment. He becomes immersed in more decision making on a broader scale. He too, must be willing to accept his role as a leader.

The Claremont experiments found that teachers were willing to accept the differences in "status" associated with the creation of team leaders, senior teachers, or aides, as long as full participation was welcomed from all and the status leaders did not assume the right to

¹²¹Fred E. Katz, Autonomy and Organization (New York: Random House, 1968), p. 40.

set team standards and determine procedures.¹²² This research points out that the establishment of hard lines of responsibility and authority will be met with resistance in the teaching profession. Normally teachers insist that decisions will be made by the total professional group by the democratic process. Often, they have felt that it is best to let authority in any given situation evolve out of the group process.

The establishment of teacher hierarchical groups should resolve one sore spot that teachers complain about. In general, they express their dislike about the competence of administrators to exercise supervisory authority. They reject in many cases, the rights of administration to make decisions on teacher assignment and assessment of teaching performance.

The drive towards reorganization has as one of its focal points the establishment of a career ladder. The criterion will be professional competence. The career pattern will permit teachers to assume additional responsibilities as they mature professionally. The new responsibilities would include selection of new staff members, supervision and evaluation of peers, research and development, active and effective participation in

¹²²Arthur R. King, Jr., "Planning for Team Teaching: The Human Considerations," Journal of Secondary Education, XXXVII (October, 1962), 364.

policy making and decisions regarding resource allocation decisions in the school.

Long-run satisfaction with an organizational career depends on whether the subject's initial level of aspiration is achieved or exceeded. Aspirations are developed in various ways and are partly independent of an individual's actual prospects. The expectations so acquired are crucial in establishing the demand, so to speak, which the individual makes on the organization in the course of his subsequent participation.¹²³ Lewin was the first to point out that the morale of individuals in an organization is not explicable by their situation at a given time but is heavily affected by their "psychological future" and to a lesser extent by their past.¹²⁴

It is important to realize that benefits will become available to the professional staff. That cannot be the sole criteria used for adoption of changing staffing patterns. The establishment of high student performance will be the only criteria recognized by the public in the present milieu.

Another benefit available to the profession deals with a change in teacher training procedures. College

¹²³ Kurt Lewin, Resolving Social Conflicts (New York: Harper and Brothers, 1948), p. 143.

¹²⁴ Ibid.

students can be placed in schools at an earlier point in their training with a reduced degree of responsibility. The induction period into the profession could be spread out over a longer period of time. The responsibility for training would begin to shift away from the college. The importance of aspirants seeing and working with teachers during their training period is well documented.¹²⁵ The day-to-day interaction generates its own kind of reality and develops its own kind of experience for the person.

A danger inherent in permitting junior teachers and college students into the hierarchy in large numbers is that of faculty solidarity. Junior teachers may identify closely with students. The problem of aligning student response with faculty hierarchy may prove too difficult, and it could be a strong pressure countering rank and favoring collegial equality.¹²⁶

The organization should benefit from a shift to differentiated staffing. Several investigators maintain that team teaching promotes professional growth by making better use of teacher talent and time, by improving

¹²⁵D. E. Himmon, "Morris Experiments with College Student as Teacher," Minnesota Journal of Education, XLVI (April, 1966), 17.

¹²⁶Dan C. Lortie, "The Teacher and Team Teaching," in Team Teaching, ed. by Judson T. Shaplin and Henry F. Olds, Jr. (New York: Harper and Row, 1964), p. 291.

teacher effectiveness, and by helping teachers to meet the needs of all levels of students.

Advantages that accrue to the profession will have impact upon the organization. Johnson and Lobb reported that teacher prestige, morale, and adaptability were enhanced by relieving teachers of routine chores and by increasing their status.¹²⁷ The corps of career teachers will offer a superior kind of preservice guidance and instructions to apprentices, interns, or other kinds of auxiliary workers.¹²⁸

The profession will need to be aware of the problems in specialization. Excessive specialization is sometimes called the micro-division of labor. Adam Smith's classic case was the example of pin-making in Glasgow two centuries ago. His analysis suggested that the advantages of increasing specialization increases indefinitely; the fewer operations performed by the worker, the greater his dexterity and the less time wasted in changing operations. Excessive specialization reduces cooperation and teamwork, so that under some conditions the worker is isolated from primary-group

¹²⁷ Robert H. Johnson and Delbert M. Lobb, "Jefferson County, Colorado, Completes Three-Year Study of Staffing, Class Size, Programming, and Scheduling," Bulletin of National Association of Secondary-School Principals, XLV (January, 1961), 58.

¹²⁸ Robert H. Anderson, "Team Teaching in Action," The Nation's Schools (May, 1960), p. 65.

contacts, and under others the primary groups that form are hostile to the production program.

When work is minutely subdivided, the voluntarism of works with regard to the enterprise is constantly threatened by the status loss they experience through the degradation and reduction of their skills and the loss of the public identity of their jobs. The factors with great motivational potential must be utilized.

When a secondary staff considers the process of change and attempts to make differentiated staffing a part of the daily operation of a school, the school takes on a different personality. No magic formulas may be transmitted to others. The benefit to the organization is that preconceived notions and many traditional ideas are no longer considered foremost in curriculum planning. Schools gain much of the spirit of spontaneity and creativity. There is a great need for fundamental curriculum reform. It is one of the biggest problems that emerges as the staff carries out the new organizational pattern.

No longer should teacher turnover be considered a standard consequence of operation. The notion that teachers are interchangeable units in the organization is not true. Certain teachers are valuable focal points in the operation.

Span of control in the conventional school is too large for administration. The segmentation of supervision is possible. This structure also permits the creation of numerous steps in the organizational ladder which is a distinct disadvantage. As educational units move to more complex arrangements, the number of levels of authority in the organization will increase. The ratio of supervisors to total personnel will increase with increases in technical complexity.

Reduced teacher turnover should produce stable lines of communications and stable lines upon which useful work may flow. It seems logical that team efficiency is related to team stability.

The creation of new staffing patterns should attract some of the more capable students into the profession. The Education Professions Development Act established several task force reports to the United States Commissioner of Education on planning the development of the education profession. Many of the nation's leading educators have been concerned with staff innovation. Priority was given in the report to the enhancing of the profession. "It was agreed that differentiated staffing is a basic objective to enhance future holding power and recruitment capacity of the

education profession."¹²⁹ The thread of differentiating staffing continues on in the report. "The basic overall strategy essential to achieving this goal is the development of differentiated staffing patterns to meet the needs of any given local school district or system as fully as possible. . . . "¹³⁰

Although the organization should benefit from a new organizational approach, all problems do not disappear. Counterproductive elements will be inherent in differentiated staffing. Role problems will spring up that cannot be handled by simplistic guidelines. Each small hierarchy with special responsibilities will demand differentiated salary consideration. Each group or sub-group will require special arrangements that must be reconciled with requests from other groups. All of this group resolution of internal conflicts will require longer negotiation periods. Some districts have proceeded by pre-negotiating positions before anyone was hired.

Some degree of antagonism between positions of different status is an inevitable feature of organizational

¹²⁹"Report of Task Force on Recruitment, Selection and Evaluation of Educational Manpower" (unpublished report of a meeting held in Washington, D.C., October, 1967). Cited by D. K. Sharpes, "Differentiated Teaching Personnel: A Model for the Secondary School" (unpublished Ph.D. dissertation, Arizona State University, 1969), p. 28.

¹³⁰Ibid.

structure. Some of the antagonism has to do with salary and fringe benefits. The incentives that the modern organization offers to its executives are very different from those that it offers to its workers. Executives are hired, in theory, for an indefinite continuous tenure, and their long-term incentives are offered in the form of status gain.

The popularity of decentralization in recent years is partly explained by the fact that additional organizational positions were created. This raised the status of the existing positions. The status of the administrators in the central office was raised while their operating responsibilities were reduced. They then had a wider range of responsibilities.

Differentiated staffing is based upon a number of philosophical assumptions. One assumption is that the teacher is the key facilitator of the learning process. Logically then the organization should try to strengthen and enhance the position of the key facilitator.

Many times the organization assumes that all teachers are competent to do all of the functions related to the teaching role. Many teachers cannot adequately use the technological innovations of the last decade. Not all students learn in the same manner. Therefore, objectives of the organization as they relate to each

student, must become differentiated. The organization possesses differentiated methods to reach students.

Differentiated staffing has linked hands with modern thinking on curriculum improvement. Recent writings indicate that we must abandon the curriculum notion of a sacred body of content to be "learned" by all children.¹³¹

A danger in establishing a more complex organization is that communications must move faster and be more accurate. Administrators normally favor a flatter organizational structure, providing them with a greater sense of autonomy and responsibility.¹³²

Differentiated staffing has appeared in many elementary schools, some middle schools, and very few high schools.

Administrative Leadership

The principal is the key man in building change. If he does not exhibit the courage to desert convenience

¹³¹Elizabeth Z. Howard, "A Look at Specialization," Educational Leadership, XXVI (March, 1969), 549.

¹³²Stuart Lee Openlander, "The Development of an Administrative Structure in a Middle-Sized City School District" (unpublished Ed.D. dissertation, Michigan State University, 1968), p. 212.

and security then neither will his teachers.¹³³ Different leadership styles may be imposed upon groups to create differences in the interaction process. Potential leaders have traits which tend to be found in clusters around the concepts of "authoritarian" and "equalitarian."

Well-known studies by Lewin, Lippitt, and White contrasted three group atmospheres. Members of the authoritarian groups showed more dependency on the leader and more hostile and apathetic behavior between members. In the laissez-faire groups there was little dependency on the leader, but greater irritability and aggressiveness among members and dissatisfaction with the task. The democratic group showed less dependency on the leader, more friendliness, and satisfaction with the activities of the group.

Groups under the direction of an authoritarian figure tend to turn out the largest quantity of work, while the products of the democratic groups are usually of the best quality. Democratic leadership usually results in better staff morale.

There are two ways the organization can obtain the needed leadership. The first method entails selecting an individual with a given set of traits or

¹³³ Ira J. Singer, "Survey of Staff Utilization Practices in Six States," The Bulletin of the National Association of Secondary School Principals, XLVI (January, 1962), 13.

characteristics. The second method involves a training program to modify existing behaviors in the person.

Differences in skills required for leadership in manual and intellectual tasks have led to the development of a number of situational tests to assess the leadership potential. The military has provided a great deal of research in this area.

Almost without exception, studies of staff utilization focused on the classroom teacher, on nonprofessional workers assisting teachers, on technological devices or pupil-teacher grouping patterns. All experiments in this area hope to supplement, extend, and simplify the work of the teacher. A great deal of research should be performed in the area of changing administrative patterns. The utilization and deployment of administrators has been overlooked.

Administrators have the legal power to make decisions, to run the schools, but teachers and usually only teachers have the necessary ability to carry out these decisions and to fulfill the schools' purposes. The "real" power in schools is shifting and will continue to shift from administrators to teachers.¹³⁴

Normally organizational changes have revolved around personalities rather than philosophies. Sometimes

¹³⁴Victor Thompson, Modern Organization (New York: Alfred Knopf, 1961), p. 65.

a leader's enthusiasm for an idea is so strong that the idea spreads. It is important that the administrator recognize the difference between staff loyalty and staff understanding of concepts.

In redesigning the structure of educational administration, three elements are critical:

1. Allocating resources against needs and opportunities.
2. Initiating collaborative activities.
3. Establishing a process for identifying and attacking problems.¹³⁵

Central to the suggestions offered here about each of the three elements is the recognition of the necessity for a team approach. The administrator must also be cognizant of the steps in the change process: research, invention, design, dissemination, demonstration, trial, installation, and institutionalization.¹³⁶

As an organization tries new staffing patterns, horizontal specialization will occur. Vertical specialization is absolutely essential to achieve coordination among the operative parts. Horizontal specialization permits greater skill and expertise to be developed by the operative group, in the performance of their tasks. Vertical specialization permits greater expertise in

¹³⁵Edwin C. Coffin, "Designing an Administrative Structure For A Changing Education Structure," Journal of Secondary Education, XLIII (January, 1968), 27.

¹³⁶Ibid.

the making of decisions by administration. Vertical specialization permits the operative personnel to be held accountable for their decisions.¹³⁷

It is important that the administrators be well aware of Gresham's Law of Planning. Stated briefly, when an individual is faced both with highly programmed and highly unprogrammed tasks, the former tend to take precedence over the latter even in the absence of strong over-all time pressure.¹³⁸

March and Simon state the conditions that must be met in order for unprogrammed activity to take place.

1. Allocation of resources to goals requiring non-programmed activity. This means to create independently budgeted "planning" units that are kept out of the stream of day-to-day operating tasks.
2. Deadlines provide the second condition for unprogrammed activity.¹³⁹

One cannot always determine the rate at which innovations will occur. The greater the pressure attached to an activity, the greater the propensity to engage in it. The stimulus of deadlines tend to direct attention to some tasks rather than others. Clarity of goals is

¹³⁷Herbert A. Simon, Administrative Behavior (2nd ed.; New York: Macmillan, 1960), p. 9.

¹³⁸James G. March and Herbert A. Simon, Organizations (New York: John Wiley and Sons, 1958), p. 185.

¹³⁹Ibid.

important. The clearer the goal, the more people will tend to try and accomplish it.

Leadership is not a familiar, everyday idea. It is a slippery phenomenon that eludes definition. What leaders do is hardly self-evident. And much of the failure that occurs is due to misconceptions and inadequate understanding of its nature and tasks. Some ideas related to educational leadership are:

1. Leadership is a kind of work done to meet the needs of a social situation.
2. Leadership is not equivalent to office-holding or high prestige or authority or decision-making.
3. Leadership is dispensable.¹⁴⁰

Principals in the past have not seemed to understand the urgency of changing the bureaucratic structure to allow it to respond to societal pressures which it was unable or unwilling to meet. It is difficult for principals to realize that it is their position which holds the autocratic organization together and thus provides it stability. By denying the necessity for changing themselves, they preserve the rigor mortis of the educational bureaucracy.¹⁴¹

¹⁴⁰ Philip Selznick, "Leadership in Administration," in Managerial Behavior and Organizational Demands: Management as a Linking of Levels of Interaction, ed. by Robert T. Golembiewski and Frank Gibson (Chicago: Rand McNally and Company, 1967), p. 361.

¹⁴¹ Fenwick English, "The Ailing Principalship," Phi Delta Kappan, L (November, 1968), 159.

The actual student-teacher relationship found in most schools, the interpersonal methods which they employ, are largely bureaucratic in nature, and the bureaucratic methods are very far from educational ones. In virtually every important respect the behaviors and attitudes appropriate for bureaucracies are quite the opposite of those appropriate for education.¹⁴²

Schools must direct their reorganization toward the ideals which schools profess to value. The instructional program must promote due process, responsibility development, allegiance to the Constitution, and rights to personal privacy. The principal must take the leadership role. Clute points out that recognition of the existence of students' rights implies that principals have a direct responsibility to effect those curricular and organizational changes that must ensue to comply with recent court decisions.¹⁴³

Liphan provides a distinction between administration and leadership. He defines the term "leadership" as "the initiation of a new structure or procedure for accomplishing an organization's goals and objectives or for changing

¹⁴²Buford Rhea, "The Large High School in Its Social Context," The Bulletin of the National Association of Secondary School Principals, LII (November, 1968), 35-45.

¹⁴³Morrel J. Clute, "Rights and Responsibilities of Students," Educational Leadership, XXXVI (December, 1968), 240.

an organization's goals and objectives."¹⁴⁴ He continues by saying, "the leader is concerned with initiating changes in established structures, procedures, or goals; he is disruptive of the existing state of affairs."¹⁴⁵ Administration is defined as:

. . . the utilization of existing structures or procedures to achieve an organizational goal or objective . . . the administrator is concerned primarily with maintaining, rather than changing, established structures, procedures, or goals. Thus, the administrator may be viewed as a stabilizing force.¹⁴⁶

Without any doubt, the ability to determine and refine goals is one measure of leadership capacity. The principal should be aware that participation in the purpose defining role constitutes a major aspect of any leadership role and enables a person to have a significant impact on the total pattern of organizational behavior.

Redfern sees the principal of the future playing an active coordination role for teachers committees within schools.¹⁴⁷ Apparently, whatever influence is to

¹⁴⁴James M. Lipham, "Leadership and Administration," in Behavioral Science and Educational Administration, Sixty-Third Yearbook of the National Society for the Study of Education, Part II, ed. by Daniel E. Griffiths (Chicago: University of Chicago Press, 1964), p. 122.

¹⁴⁵Ibid.

¹⁴⁶Ibid.

¹⁴⁷George B. Redfern, "Negotiation Changes Principal-Teacher Relationships," The National Elementary Principal, XLVII (April, 1968), 20-25.

be possessed by principals in this setting would be a direct result of the degree to which their expertise was of value to teachers as they functioned within their classrooms and committees. Preparation for the position may include a period of internship.¹⁴⁸

Available evidence indicates that the principalship is in a transitional period, filled with conflict and uncertainty. Principals are aware of the fact that traditional responses are often inappropriate when dealing with contemporary problems. Students are increasingly discontent with the manner in which the schools relate to them and to the society as a whole. Principals will find it necessary to initiate new structures and processes for incorporating students into the policy-making aspect of the schools and for providing them with an effective means of voicing their concerns without having to resort to the methods which serve to intensify rather than reduce existing levels of conflict.

As the principal tries to exert leadership traits, pressures are exerted at all levels to include within the school curricula information regarding topics that a great many principals would prefer to ignore. Among them are

¹⁴⁸Conrad Briner, "The Role of Internships in the Total Preparation Program for Educational Administration: A Frontier Perspective," in The Internship in Administrative Preparation, ed. by Stephen P. Henclay (Columbus, Ohio: University Council for Educational Administration, 1963), p. 16.

demands upon the schools to provide students with information about sex and its role in our society, about conscientious objection to war and military service and about the nature and use of drugs. Simultaneously, principals are asked to cope with concerns such as militant parents, extremist groups, community involvement, and decentralization.

Negotiations have played a big part in making an impact on administrative leadership. Taffel points out that the process serves to restrict the latitude which principals traditionally have possessed with regard to such areas as assignment of teachers, program development, transfer of teachers, and handling of grievances.¹⁴⁹ Although it is possible that the worst fears of some students of the principalship will come true, there is also a distinct possibility that the role, rather than being diminished, will instead be enhanced and redefined to encompass areas of responsibility not presently within its domain.¹⁵⁰

¹⁴⁹Alexander Taffel, "The Principal and Teacher-School Board Negotiations," The Bulletin of the National Association of Secondary School Principals, LII (September, 1968), 71-83.

¹⁵⁰Harvey Goldman, "Principals for Community Schools," The Community School and Its Administration, Flint, Michigan: The Flint Board of Education and the Mott Foundation, Vol. 7, No. 1, September, 1968.

Principals in the past have been fearful of the risks involved in assigning authority and autonomy to teachers and also of being held responsible for the evaluation of staff performance. As a result, they relied on the centralization of authority and on the establishment of rules which served to control rather than liberate teachers. The administrator found himself measuring teacher compliance with set norms instead of attempting to measure teacher effectiveness.¹⁵¹ In many systems, extensive and detailed rules exist that prescribe what the teacher will teach, when he may and may not leave his classroom, and how many staff meetings he must attend. This set of rules in many cases has reduced the work effort of the staff members. Numerous research investigations have shown that the performance of any employee, whether teacher or assembly line worker, is depressed by close supervision.¹⁵²

Organizational Change

Perhaps the best understood elements of change are what might be called the substance for change. Interpreting broadly, the phrase includes such new technology as

¹⁵¹James G. Anderson, "The Authority Structure of the School: System of Social Exchange," Educational Administration Quarterly, No. 3 (Spring, 1967), 130-48.

¹⁵²Alvin W. Gouldner, Patterns of Industrial Bureaucracy (Blencoe, Ill.: The Free Press, 1954).

television and teaching machines, new curricula, novel staffing or scheduling arrangements, new facilities, and different ways of organizing pupils to expand learning capability. Most people tend to operate at the level of substance for change. More is necessary than just the acquisition of the substance for change.

To be successful, change must either be upward or downward. Both are legitimate strategies, and both have weaknesses and strengths. Change produced by the teacher may indeed be the more creative approach. Change produced by the administrative mandate is also needed. Many schools have procedures for accepting change-producing ideas, but most of them are a technique that tends to generate a large degree of frustration.

The human being operates on what has been called "economy of effort" basis. Normally, it is much easier to follow established paths than to blaze new ones. The status quo approach requires a minimum of effort for its maintenance, and reduces the risks of failure which one encounters. In today's language accountability is a prime word. The emphasis in administrative circles is on following established procedures. No one encourages the administrator to take the school to the brink of learning chaos and then back off. Accountability for producing change is not usually considered a major item of evaluation.

It is often claimed that the personality traits required of top executives during the stages of innovation are different from the traits required during the subsequent program execution stage. Rarely are decisions made during the early stages of innovation re-examined during the stages of execution.

An important step in change revolves around the process of commitment during the program elaboration stage.¹⁵³ March and Simon hypothesized that whatever relations are established in the initial phase, they will tend to be relatively stable. Hence, the process of commitment is not reversible.

The extent of involvement and commitment from top administration depends on a number of factors. In general, vigorous innovative activity will take place only in organizational units that are not assigned substantial responsibilities for programmed activity.¹⁵⁴

Change can be managed. Fragmentary approaches must be brought together. Realistically, one must consider a strategy for implementation of change. We cannot completely tear down what we have. We can talk about strategy for change that is based on the establishment

¹⁵³James G. March and Herbert A. Simon, Organizations (New York: John Wiley and Sons, 1958), p. 185.

¹⁵⁴Ibid.

of a variety of beachheads. Support can be provided for those people who are ready to move.

In the process of change, a great deal of talk centers on the innovator or the "change agent." In many cases the resistors of change perform an important service also. They tend to hold in check the initiators of change. Change can then take place at a more orderly pace and in an evolutionary stance.

Organizational change has to deal with what is being changed, how it is being changed, and who are the crucial parties in the process of change. Literature uses words like process and relationship to express components of change.

A false notion is recurrent in educational experiments. Educators feel that they need total staff loyalty and commitment as they proceed with pilot programs. It is unrealistic to assume that any project will ever obtain 100 per cent cooperation. More important, one must have methods to cope with the lack of support and to alter resistance levels.

It is almost certain that any proposed change in the structure of a large organization will be perceived by some of the people involved as a threat of status loss. There are few innovations that do not have adverse effects for someone, and therefore their fears are well founded. The resistance to status threat often has

made it difficult to eliminate positions in an organization. Noteworthy is the obvious conclusion that success was seen as closely related to the understanding gained by both teachers and parents. Check lists and repertories are used both in finding innovative solutions to problems and in checking feasibility.

The extent of involvement of top levels in the innovate process depends on a number of factors in addition to those we have already mentioned. In general, vigorous innovative activity will take place only in organizational units that are not assigned substantial responsibilities for programmed activity.

The attention of high levels will be directed principally to those proposed innovations that have significance for the maintenance of organizational structure. Procedure becomes important at the top level.

Since decision making is generally undertaken in stages, one must consider that the change process will and must occur in stages. The decision-making process is one of successive approximations. Administrators must set general goals and then discover means to achieve them. Refinement of purpose will take place as the process moves through the different stages.

Summary

Traditional staffing patterns have developed over a period of time. The concept of teaching load in this

pattern has not changed much over a period of years. All deployment of personnel has used some form of quantitative measure to arrive at equity states for the teachers.

Administration had the responsibility for deciding teaching load. Additional remuneration was provided for duties beyond the normal day. As schools grew more complex and curriculum changes became more common, the administrator was faced with a more difficult job. Department heads became involved in the process of determining teacher load and assignment.

The teacher's role has been easy to understand until recently. Technological changes, team-teaching arrangements, and the use of paraprofessionals have demanded a new look at the role. The computer has made possible new ways of placing students into scheduled programs. Flexibility has become a common educational phrase.

Research related to teacher aides indicates that the concept is not a new one. The number of ways in which they are used in a school system has increased considerably. Their primary purpose has not been one of instruction. Their main function has been to support the professional staff and to relieve the teacher of clerical duties.

Differentiated staffing is a search for an organizational pattern that will incorporate a wide

variety of personnel along with the various new technological devices in efforts to provide better education. Individualization of instruction seems to be its main rationale for the learner. Enhancement of the professional is the rationale for the teacher. The organization profits by reducing teacher turnover and utilizing the talents of the professional where needed.

The literature supports the idea that leadership is important in the operation of any organization. Change will take place continuously. The role of the principal may change and the nature of his responsibility may be altered in the future. But with careful planning, the pace and direction of the change may be altered so that the principal may continue to be the educational leader of the organization.

CHAPTER III

ADMINISTRATIVE COURSES OF ACTION

Introduction

The major purpose of the study as set forth in the first chapter was to develop courses of action that the administrator could use during the implementation of differentiated staffing into the secondary school.

Chapter II reviewed many of the factors that have led to present staffing patterns. Major emphasis was placed upon team teaching. An evolutionary process has taken place as schools moved from traditional staffing to the team teaching patterns and now appear to be ready to move to differentiated staffing patterns. Technological advances have occurred rapidly in the last decade and many new tools are now available to the professional administrator. The literature also suggests that the social milieu is such that change in the educational format is more acceptable now than previously thought possible.

It was imperative that data be collected from school districts presently engaged in differentiated staffing before suggesting how one might proceed with

the implementation process. Analysis of the data will indicate the factors advanced as rationale for differentiated staffing. Analysis will also indicate where school districts have encountered difficulties during implementation. Using the data as background information, appropriate administrative courses of action can be set forth.

Questionnaire Development

A questionnaire was developed by initially writing down all items that one might want to measure relating to staffing patterns. Extensive reading suggested items that might have otherwise been overlooked.

The first draft of the questionnaire was designed and tested against four administrators in the Grand Rapids school system. Consolidation of items produced eight major categories to be used in the study. Considerable attention was paid to the wording of items in the questionnaire. Directions used on each page of the questionnaire were pretested on a sample of administrators and teachers for clarity of expression.

Item analysis was done by the use of a jury of three national experts in the field of staffing. They analyzed each item on the eight-page questionnaire and made suggestions relative to inclusion, exclusion, and rewording of specific items. A phone call was used to secure participation of the respondents. A letter was

then sent to the jury members (Appendix A). Another phone call after their analysis of the questionnaire proved to be very useful and cleared up minor areas of concern.

The jury was selected by analyzing responses to a survey letter sent throughout the country. The survey letter was sent to persons mentioned in the review of literature (Appendix B). The letter sought to find two pieces of information.

- (1) Names of experts in the area of differentiated staffing;
- (2) Names of schools in their region that were actively engaged in differentiated staffing.

The survey letter produced a 70 per cent return. The jury selected for validation of the questionnaire were the three most commonly mentioned. The jury used in the study consisted of:

1. Dr. Richard Clark
Staff Director of MESPU
Assistant Professor of Education
School of Education
University of Massachusetts
2. Dr. Fenwick English
School of Education
Department of Secondary Education
Arizona State University
3. Dr. Donald Sharpes
Program Specialist
Bureau of Educational Personnel Development
U.S. Office of Education

The questionnaire was subsequently refined once more before being presented to the guidance committee for approval (Appendix C).

Selection of Schools

One of the most difficult parts of the study was finding secondary schools that were truly engaged in differentiated staffing. As mentioned previously a survey letter was sent throughout the country to numerous persons connected in some way with differentiated staffing. Contacts were made with ASCD, NASSP, NEA, and the AFT requesting information relative to schools that were employing new staffing patterns. Every possible school mentioned was checked out by a long-distance phone call to the principal of the school. Many of the schools supposedly engaged in differentiated staffing did not fit the criteria used for selection of the schools.

Some schools had introduced auxiliary staff to help the teacher and had proceeded to call this differentiated staffing. A number of schools had attempted implementation on a departmental level. In order to establish a common base for the study, criteria for school selection were developed. The project characteristics required of schools funded through the School Personnel Utilization Program of the United States Office of Education were used with modification. The criteria used were:

1. No unit smaller than an entire school staff is differentiated.
2. All instructional staff spend at least 25 per cent of their time in direct contact with students.
3. All instructional staff in the unit designated as operationally differentiated is on a differentiated salary schedule.
4. The differentiated roles of the instructional staff as well as the selection criteria is clearly delineated.
5. The school has been operating with differentiated staffing for at least one year.
6. The school must be one of secondary school organization.
7. The school must have three levels of instructional staff.

An important consideration in selecting the schools dealt with the contact person. It was important that the questionnaire be answered by the administrator most closely responsible for the implementation process. In some cases, the questionnaire was completed by a contact person working out of central administration while in other cases the questionnaire was answered by a building administrator. The school systems contacted were extremely quick in channeling all requests regarding

differentiated staffing to one person within the system. At no time was there doubt that this person would be capable of providing objective data for the study.

Again phone calls were made to each of the contact person requesting their participation in the study. Prior to return of the completed questionnaire, another phone call was made to clarify any unforeseen situations. Each school was promised anonymity in terms of specific results being published in the study. The schools selected along with the contact persons who completed the questionnaire are listed below in alphabetical order only. Throughout the study the data will in no way be linked with the individual school.

<u>School District</u>	<u>School Involved</u>
Beaverton School District #48 4855 S.W. Erickson Street Beaverton, Oregon Mr. Harold Wik--Project Director	Aloha High School Mountain View Jr. High School
Hood River School District Hood River, Oregon Mr. Charles Bowe--Principal	Hood River Valley High School
Kansas City School District 4201 Indiana Kansas City, Missouri Dr. Odell Thurman--General Director of Extended Services	Martin Luther Jr. High School
Minneapolis School District #281 4148 Winnetka Ave. N. Minneapolis, Minnesota Dr. Robert Cameron--Director of Secondary Education	Neil Armstrong High School

<u>School District</u>	<u>School Involved</u>
Orangeburg School District Orangeburg, New York Mr. James Evergetis--Principal	Tappan Zee High School
Temple City Schools 9516 E. Longden Avenue Temple City, California Mr. Bruce Caldwell--Director	Oak Avenue Intermediate
Weber County School District 1122 Washington Boulevard Ogden, Utah Mr. Bruce Griffin--Director	Five Junior High Schools

Analysis of Data

The questionnaire consists of eight pages of items that relate to staffing pattern changes. On some pages of the questionnaire the respondents were expected to indicate an increase or decrease in a particular item, as experienced by their particular school district. On the other pages the respondents were expected to indicate relative degree of importance of the items. The following chart indicates the type of response expected for each of the eight categories.

Establishing a Rationale	Degree of Importance
Establishing Organizational Patterns	Increase/Decrease in Item
Establishing New Roles	Increase/Decrease in Item
Negotiations	Increase/Decrease in Item
Economic Considerations	Increase/Decrease in Item
Change Process	Increase/Decrease in Item
Areas of Resistance	Degree of Resistance
Evaluation	Amount of Time Spent

Each item on the questionnaire had four possible places where responses could be made. For the purpose

of quantitative analysis, responses to each item were given the following numerical value:

Item in the Left Space	4
Item in the Second Space	3
Item in the Third Space	2
Item in the Right Space	1

A total score could then be computed for each item. In some selected cases a respondent omitted an item. Dividing the total score indicated for each item by number of respondents gave a composite average score for each item in the questionnaire. (Total score for each item is shown on the right hand side of each page.) No item on the total questionnaire produced total consensus of the seven respondents.

As the questionnaires were returned, a number was assigned to each of them (1, 2, 3, 4, 5, 6, or 7). This assigned number was then recorded in the corresponding space on a blank questionnaire. After the results from all seven respondents were recorded a composite score for each item was computed along with an average score for each item.

The average score for each item is used in drawing conclusions. The conclusions for each category follow the data as presented.

ESTABLISHING A RATIONALE FOR
DIFFERENTIATED STAFFING

Instructions: Each of the following statements has been advanced as a rationale for differentiating a staff. Rate how important they were to your school as you moved to differenti- ated staffing.	Very Important	Important	Of Little Importance	Not Important	Average Score for Item
1. Searching for efficiency.	345 7	16	2		3.42
2. Providing students with a greater responsi- bility for their own learning.	135 67	24			3.71
3. Building of a career ladder.	135 7	26		4	3.14
4. Providing teachers with a stronger voice in determination of school policy.	145 6	23 7			3.57
5. Creating an active role for the learner.	123 567	4			3.85
6. Placing the teacher in a new role as facilitator of learning.	123 567	4			3.85
7. Providing better accountability for the organization.	125 6	347			3.57
8. Individualizing instruction.	123 56	7	4		3.57
9. Preparing for the advent of man-machine learning systems.	5	12 37	6	4	2.71
10. Establishing teacher performance as the essential criteria to be used in staffing a school.	346	127			3.50
11. Promoting the ability of the organization to become adaptive.	34	12 56			3.33
12. Strengthening the status of the teacher.	357	246	1		3.28
13. Bringing more community people into the school staffing pattern.	127	346	5		3.28

The data indicate that new roles will emerge for the learner and the teacher as a result of differentiated staffing. The student will be required to take an active role for his own learning with multiple options being opened up through individualized instruction. Likewise, the teacher will assume a new role. The terms "manager" or "facilitator" of learning will probably become more common.

The status of the teacher will be strengthened in differentiated staffing arrangements. This will be accomplished by permitting teachers to have a stronger voice in the policy-making mechanism and the curriculum decision process. Concurrently, the role of the teacher will also require greater commitment and increased responsibility. All respondents to the questionnaire considered teacher performance as crucial to the school.

The impact on the organization will be significant. Changes in organizational procedures will be mandated as the secondary school attempts to individualize instruction. Continuous emphasis will be placed on accountability within the organization. Organizational changes which result in man-machine learning systems were not considered important by the respondents.

ESTABLISHING NEW ORGANIZATIONAL
PATTERNS

Instructions: Indicate by checking the appropriate category, any change in the following items, after your school moved to a differentiated staffing pattern.

	Large Increase	Some Increase	No Increase	Decrease	Average Score for Item
1. Data processing and computer capability within your system.	35	127	46		3.00
2. Subgrouping of students by the professional.	67	124	5	3	2.85
3. Time set aside for planning and coordination.	45 67	13	2		3.42
4. Flexibility permitted a department to change their staffing pattern.	123 67	45			3.71
5. Time spent by teachers developing instructional materials.	135 67	4		2	3.42
6. Time spent in long-range planning.	36	124 57			3.28
7. Length of the work year for the professional.	6	123 457			3.14
8. Number of courses available to the student.	367	124 5			3.42
9. Input from consultants from outside the school system.	17	36	45	2	2.71
10. Ability of teachers to create new organizational patterns.	26	13 57	4		3.14
11. Amount of time needed for coordination between teachers.	46	13 57	2		3.14
12. Restrictions placed on class size.			45 67	23	1.66
13. Restrictions placed on the number of teacher preparations.			145 67	23	1.71
14. Amount of in-service time needed to familiarize teachers with new organizational patterns.	12 67	34 5			3.57
15. Mini-courses available to students.	347	12 56			3.42
16. Amount of actual teacher-student contact hours allocated to a course of study.	13 67	4	2	5	3.14
17. Time needed by administration for supervision.	16	37		245	2.42

Some benefits will accrue to the student due to changes in the organizational pattern. More courses will be available to the student during the selection process. At the same time many courses may be subdivided into mini-courses with grouping of students according to interest areas. In general, the data suggest that most of the benefits are not for the student. Differentiated staffing promotes benefits for the professional staff member to a large extent.

Individual teachers and departments will exercise greater autonomy over their staffing patterns and their instructional materials. All schools participating in the study indicated an increase in departmental flexibility to reorganize staffing patterns. The indication is that teachers through practice will develop more skill in making internal organizational changes.

The teacher will become a year-long professional engaging in the design of materials and the long-range planning of curriculum. This will in effect lead to a broadening of their background in subject matter areas. Money will have to be spent for summer work as well as for continuous in-service programs during the year. Outside consultants will not be as important as expertise develops within the school system.

Instructional supervision will probably occur on a departmental level with less involvement of administration. Internal modifications of class size, number of teacher preparations, and teaching load will take place at the departmental level.

ESTABLISHMENT OF NEW ROLES

Instructions: Indicate by checking the appropriate category, any change in the following items, after your school moved to a differentiated staffing pattern.

	Large Increase	Some Increase	No Increase	Decrease	Average Score for Item
1. Time spent writing job descriptions.	137	24 56			3.42
2. Time spent in analysis of staffing patterns.	13 67	24 5			3.57
3. Commitment by teachers for differentiated staffing.	234	15 67			3.42
4. Number of different positions open to the professional.	35	124 67			3.28
5. Time spent on legislation and certification relative to the paraprofessional.		7	123 456		2.14
6. Conflict between teachers and administrators over working conditions.		1	26	34 57	1.57
7. Conflict between teachers and administrators over wage differences.		67	24	135	1.85
8. Conflict between teachers and administrators over work load.			24 67	13 5	1.57
9. Time needed by the new teacher to function effectively.		12 37	46	5	2.42
10. Departmental involvement in teacher load determination.	23 56	147			3.57
11. Adult-pupil ratio within the building (count professionals and auxiliaries as adults).	145	3		267	2.57
12. Student acceptance of the new roles for teachers.	27	34 56			3.33
13. Community acceptance of the new roles for teachers.	2	567	34		2.83
14. Amount of independent study time assigned to students.	15	23 67	4		3.14
15. Amount of time the professional spends in contact with students.	12	36	4	57	2.57
16. Number of students contacted by the professional.	126	4	35	7	2.85
17. Instructional tasks performed by the paraprofessional.	123 457	6			3.85
18. Use of teacher load formulas.		6	14 57	23	1.85
19. Autonomy for the professional.	25	13 47	6		3.14
20. Number of formal meetings within the building.	13 57		6	24	2.85

A new role for the teacher is a reality when one discusses differentiated staffing. The data indicates that the commitment of teachers to differentiated staffing is present in districts now engaged in the practice. Students have trouble accepting the roles created for teachers. Two factors may account for this problem. First, increases in independent study time is paralleled by a decrease in the amount of contact the student has with the professional staff member. In addition, the teacher generally has an increased number of student contacted within the standard work week.

The community will accept the new role for the teacher, but not as readily as the administrator would like. A large increase in the use of paraprofessionals in instructional roles may be partly responsible for this reaction.

The establishment of new roles present new implications to the organization. Additional time must be found to design new job descriptions and analyze staffing patterns. The organization must also face the task of deciding what activities the paraprofessional person can and should perform. Reduction in conflict between teachers and administrators over work load, working conditions, and wage differences appear to be indicated by the data.

Teacher load formulas are not important to the schools involved in this study. Another interesting feature is that the new teacher can fit into differentiated staffing formats as easily as a traditional staffing pattern. The respondents indicated that a wider range of instructional positions is available to the professional staff member.

NEGOTIATIONS

Instructions: Indicate by checking the appropriate category, any change in the following items, after your school moved to a differentiated staffing pattern.

	Large Increase	Some Increase	No Increase	Decrease	Average Score for Item
1. Ability to change teacher-pupil ratios.	256	7	34		2.71
2. Time spent on negotiations.		26	134 57		2.28
3. Time needed to process grievances.		2	134 67	5	2.00
4. Restrictions placed upon administrative decision making.	5	16	234	7	2.42
5. Length of the working day for the teacher.		36	124 57		2.28
6. Time needed for evaluation of teachers.		13	467	25	2.00
7. Responsibilities for the teacher.	12 57	34 6			3.57
8. Ability to dismiss a professional.	5	12	34 67		2.57
9. Time spent on overall conflict resolution.	7	15	46	23	2.28
10. Deviations from the master contract.		67	345		2.40
11. Conflict between professional and paraprofessional.			124 57	36	1.71
12. Teacher demand for merit pay.			234 67	15	1.71
13. Support of the local teacher negotiating unit.	3	5	146	27	2.14
14. Involvement of the state teacher's association.	5	1	34 67	2	2.28
15. Bilateral management (teachers involved, consulted, and agreement sought before decision making) at the building level.	135 67	24			3.71

The data on negotiations indicated a significant increase in bilateral management for the teacher. At the same time the teacher will incur increased responsibilities.

On the whole, negotiations were not a problem to those school districts involved in this study. Further study should try and replicate this conclusion. It is important to note that nothing is known about negotiations in these districts prior to the implementation of differentiated staffing. It is possible that these school districts might have always had good working relations with their employees. It is also possible that the local negotiating units were not powerful.

The respondents reported little change occurred in the amount of time spent on negotiations, the number of deviations from the master contract, the time needed for evaluation of teachers, the time needed to process grievances, and the time spent on conflict resolutions. Particularly interesting is the lack of conflict reported between the professional and the paraprofessional.

An interesting feature of differentiated staffing is the decrease in the demand for merit pay. The data suggests that a school district does not employ both differentiated staffing and merit pay plans.

ECONOMIC CONSIDERATIONS

Instructions: Indicate by checking the appropriate category, the impact made upon the budget for your school after you had moved into a differentiated staffing pattern.

	Large Increase	Some Increase	No Increase	Decrease	Average Score for Item
1. Amount of money spent per student.	7	56	12 34		2.57
2. Budgetary amount allocated to teacher salaries.		35 67	2	14	2.28
3. Budgetary amount allocated to administrative salaries.		6	123 47	5	2.00
4. Budgetary amount allocated for instructional materials and equipment.	6	357	124		2.14
5. Budgetary amount allocated to para-professional salaries.	145	36	27		3.14
6. Time spent on long-range cost analysis.	27	156	34		3.00
7. Time spent evaluating economic input with specific outputs.	7	12 35	46		2.85
8. Time spent for in-service training programs.	123 567	4			3.85
9. Budgetary amount allocated for substitute teachers.			14 67	23 5	1.57
10. Additional wages paid the professional for summer work.	56	12 34	7		3.14
11. Data processing and computer costs.	5	23 47	16		2.85
12. Total budget allocated for your school.		456	12 37		2.42
13. Demand for administrative secretaries.		6	134 57	2	2.00
14. Demand for clerical help for the teacher.	56	13 47		2	3.00

Economic implications are key in any discussion of staffing patterns. Schools engaging in differentiated staffing incurred increased costs as more time was spent on in-service programs. Two other items of the questionnaire indicated increased costs. Monies had to be allocated to the paraprofessional budget for additional personnel. Also, additional money was allocated for professional salaries during the summer months.

Small increases which might be expected occurred in budgets for instructional materials and computer costs. Additional costs occurred because of demand for clerical help for the teacher.

Three of the respondents reported a reduction in the budgeted amount for substitute teachers. No increases were allocated to administrators in terms of salaries. At the same time, no additional money was spent for secretarial help at the administrative level.

In terms of planning, five of the seven respondents reported long-range cost analysis related to differentiated staffing patterns they projected for their school district. Three of the seven school districts reported some increase in total budget. Considerable research is needed in this area.

CHANGE PROCESS

Instructions: Indicate by checking the appropriate category, any change in the following items, after your school moved to a differentiated staffing pattern.

	Large Increase	Some Increase	No Increase	Decrease	Average Score for Item
1. Ability of teachers to set goals.	23 56	14 7			3.57
2. Ability of teachers to solve problems.	23 56	14 7			3.57
3. System's ability to involve teachers in formal decision making.	35 6	12 47			3.42
4. Research under field conditions.	35 67	12	4		3.42
5. Community involvement in the change process.	25 67	13	4		3.42
6. Strength of informal groups within the professional ranks.	46	12 57		3	3.00
7. Student involvement in the change process.	23	45 67	1		3.14
8. Use of educational rhetoric about change.	15 67		4	23	2.85
9. In-service training sessions within the system.	123 56	4		7	3.42
10. Federal money for the effort.	57	23	4	16	2.57
11. Tolerance level of the staff for more change.	23 46	157			3.57
12. Written procedures for operations.	136	24 57			3.42
13. Willingness of teachers to accept decisions of others.	36	124	5	7	2.85
14. Ability of teachers to interact with others.	236	147	5		3.28
15. Ability of the system to change or modify plans.	23 56	14 7			3.57
16. Number of teachers who have leadership roles.	234 567	1			3.85

This particular category of the questionnaire produced the most significant results. Extensive emphasis on the change process is suggested by the data collected. All aspects of the results suggest more involvement of teachers, administrators, students, and community. At the same time, the informal group takes on added significance in the communication process.

The organization must recognize the need for improved communications. Need is present for written procedures to guide the transition process. Some problems might be encountered by the increased use of educational rhetoric during the change process. As the organization improves upon its ability to respond and communicate, it should find that it becomes more adaptive in its ability to alter plans for the future.

The change process provides the administrator with an important tool. The process can be used to develop staff capacity and competency. The data indicates that teachers increased in their ability to set goals and solve problems. Teachers experienced a growth in their tolerance levels for future change. Concurrently, they became more involved in decision making and they assumed more and different types of leadership roles.

AREAS OF RESISTANCE		Definite Resistance	Some Resistance	Little Resistance	No Resistance	Average Score for Item
Instructions: Listed below are possible areas where resistance may occur as a school moves to differentiated staffing. Indicate by checking the appropriate category the extent of resistance that your school experienced as it moved into a differentiated staffing pattern.						
1. Lack of experience with new professional roles.	1	34 67	25			2.85
2. Lack of experience with new organizational patterns.	7	13 45	26			2.85
3. Resistance to change in general.	1	357	246			2.71
4. Fear of a teacher hierarchy.	1	57	24	36		2.28
5. Increased time for negotiations.		17	2	34 56		1.71
6. Increased administrative tasks for the professional.		24	135	67		2.00
7. Community acceptance.	3	24	157	6		2.42
8. State certification codes.			23 45	167		1.57
9. High turnover rate for the professionals.			7	123 456		1.14
10. High turnover rate for the para-professionals.			24	135 67		1.28
11. Accreditation association standards.		1	457	236		1.71
12. Local teacher negotiating officials.	7	12	4	356		2.14
13. Additive cost of the program.		7	34 56	2		1.71
14. Leadership vacuum.			257	346		1.50
15. Loss of key people promoting the change.		7	4	23 56		1.50
16. Personnel department ramifications.		7	14	23 56		1.57
17. Demand by teachers for more planning time.		137	245	6		2.28
18. Changing role for the administrator.		1	25	34 67		1.57
19. Student attitudes.		35	246	17		2.00
20. Seniority clauses in the master contract.			1	345 67		1.00

In the seven school districts reporting in this study, resistance to differentiated staffing is not significant. There may be field conditions in each school district that made the transition easy. It is important to note that this data in no way suggests that other districts might not encounter stiff resistance.

Lack of experience with new roles and new organizational patterns caused greatest resistance. Resistance to change in general showed some resistance. Local teacher negotiating officials constituted a concern to three school districts. As mentioned before, community acceptance does present some problems. Demand for more planning time was apparent to some of the districts.

A large number of the items showed little resistance where it might normally be expected. Student attitudes, loss of key people promoting the change, accreditation association standards, and state certification codes seem like problems that never materialized. Additive cost of the program, personnel department ramifications, increased time for negotiations, and changing role for the administrators were items that also showed very little resistance by the school districts surveyed.

EVALUATION		Spend Large Amount of Time	Spend Some Time	Spend Very Little Time	Spend No Time	Average Score for Item
Instructions: Indicate the amount of time spent on evaluation of the following items, after your school moved to a differentiated staffing pattern.						
1. Assessment of academic achievement.		5 123 467				3.14
2. Assessment of student study habits.		1467	235			3.57
3. Assessment of student self-responsibility.		134 567	2			3.85
4. Assessment of teacher attitudes.		123 567		4		3.71
5. Assessment of community awareness and acceptance.		23 56	17	4		3.42
6. Assessment of student attitudes.		23 57	14 6			3.57
7. Assessment of work performed by para-professionals.			123 467	5		2.85
8. Assessment of attitudes of para-professionals.			123 467	5		2.85
9. Assessment of teacher load.		36	47	125		2.85
10. Assessment of student dropout rate.			37	124 56		2.28
11. Assessment of student attendance patterns.		6	37	245	1	2.42
12. Assessment of college entrance rates.			6	234 5	17	1.85
13. Assessment of number of scholarships earned.				234 56	17	1.71
14. Amount of research being performed at the building level.		35	267	4	1	2.85

The most significant conclusion that can be drawn from the data is that the traditional methods of evaluating educational programs are not important to the school districts involved in this study. Greater reliance is being placed upon new assessment instruments. Assessment of dropout rate, student attendance, college entrance rates, and number of scholarships earned are not being used. Only academic achievement remains as a traditional evaluating tool.

The new forms of evaluation being used are assessing attitudes of students, teachers, paraprofessionals, and people in the community. Some evaluation is being performed on student study habits. More emphasis is being placed on measurement of student self-responsibility. Some assessment has been conducted on the work performed by the paraprofessional. Five of the seven school districts are doing building level research.

Administrative Courses of Action

The intent of the last portion of this chapter is to suggest administrative activities that can be used in altering the manpower system of a school district. As secondary schools increase their ability to operate as a client service system, a natural change will result in the manpower system.

It would be helpful if a specific "logic sequence" could be developed that would detail all aspects of the shift from traditional staffing patterns to differentiated staffing patterns. Since very few secondary schools are operating a differentiated staffing pattern, the development of such a "logic sequence" is impossible.

Rather, the data collected from the seven school districts in this study together with extensive reading of the literature suggests several courses of administrative action that might be employed. The courses of action set forth are broad guidelines that permit internal modifications needed to adapt to local situations. Considerable latitude is available to the competent administrator.

Much is being currently written about the subject of differentiated staffing and more comprehensive guidelines of administrative courses of action should be available in the future. Administration will be required to utilize many administrative techniques that are not

even suggested in this study. An important fact to remember is that administration will have to take the lead if differentiated staffing is to succeed in the secondary school.

Establishing a Rationale

1. Appoint a steering committee.

The steering committee should be appointed by the superintendent and should consist of a broad cross-section of the personnel of the school system. This committee will have the task of developing the program until a specific budget commitment is made to the implementation phase.

2. Set up a list of definitions.

Educational change can be best promoted by the use of a standard set of definitions. This list should be drawn up early in the planning process. Some change may occur during the transition to differentiated staffing. Where possible educational rhetoric should be kept at a minimum. Eliminate superficial abstractions.

3. Involve a wide range of people.

Staff involvement throughout the process is one of the major criterion in success of the operation. Since they will be totally immersed in any final plans, they should have input. It is also necessary to involve students and parents for their input.

4. Assess readiness to make a staffing change.

Substantial input is necessary from teachers, students, administrators, and community people to make the change. An assessment of concerns should be collected. Two types of communities would have an advantage when it comes to making a change. The first would be a community which had always supported the school in its effort to find better methods. The second type of community would be one which was very dissatisfied with its schools and would view most any change as

better. The most difficult community to change would be a community that was conservative and content with most aspects of its schools.

5. It is impossible to get consensus on a rationale.

Most administrators are reluctant to make changes without the support of most of the teachers. The steering committee should assess the degree of commitment to change. It is important to have consensus from the formal and informal leadership. The strengths of the teacher leadership will permit the change to be made.

6. Remember that establishing a new rationale involves a learning process for most people.

It takes time for teachers, students, administrators, and community people to assimilate new ideas. A wide variety of learning experiences must take place so that new words and new operating procedures can be adopted. Implementation of differentiated staffing will require a great deal of learning during the transition. Creative methods can aid the learning process.

7. The rationale should place a heavy emphasis on learning.

Traditionally the concept of differentiated staffing has been aimed at improving career opportunities for the teacher. Main emphasis should be placed on new learning patterns. The role of the teacher and the student will change. It will be the responsibility of the school to enhance the learning process.

8. Make an objective assessment of potential problems.

Pursuit of differentiated staffing should never be undertaken by a school that feels it is not capable of overcoming identified problems. The thorough study of inherent problems is useful in reaching the goal. Problem solving sessions can be utilized in developing strategies to overcome problems. Staff strength will help in the identification of potential problems.

9. Adopt a performance curriculum.

When the student meets the specified criteria, he will have completed the program. The performance curriculum will mandate student initiative. What teachers

and administrators consider to be good teaching may not result in the most effective learning. Performance criteria will place the focus on the learning process.

Establishing Organizational Patterns

1. Set a master plan.

A written plan plays an influential role in promoting change. It provides people with the security they need as they move through a transition. PERT techniques should be used when appropriate.

2. Build, adopt, and incorporate instructional systems.

With the advent of industry into educational technology, broader schemes of instructional packages are available. These instructional packages should be utilized where feasible.

3. Move in an orderly fashion using time tables.

The change should be promoted with deadlines and specific tasks to be accomplished. The time tables can be integrated into the master plan.

4. Don't expect organizational patterns to last forever.

It is important that the organization stabilize itself for segments of time during the change process. People need the security of structure at different times. Continuous change will overwhelm people. It is important to secure input and remodel curriculum at periodic times. All educational structure is nothing more than temporary means to achieve what appears to be important at the time.

5. Make a thorough inventory of resources.

The ease with which changes are achieved is very closely related to the resources available and their deployment. Obsolete resources should be gathered to a central location. After a final check they should be discarded.

6. Develop models for each department or cluster of teachers.

These models must emphasize the individual while dealing with the mass of students. The models must deal with ways of thinking and learning together

with content acquisition. They must suggest school structure that provides for variations in program and rates of progress.

7. Recognize that diversity and conformity are in a constant battle.

The strength of a school engaged in differentiated staffing lies in its diversity. This presents a problem in trying to run an efficient program. It is important to determine the degree of diversity you can tolerate.

8. Utilize a system approach making a broad attack on many fronts.

A number of tasks must be confronted at the same time. The development of resource centers, team planning sessions, modifications in physical plant, curriculum revisions, equipment acquisitions, staff retraining programs are but a few of the tasks that await the staff ready for the challenge. The organization will permit minor changes to occur with very little resistance. A change involving many facets of the organization will encounter great hostility.

9. Resistance will diminish with good planning.

Most of the problems can be overcome. Thorough written plans that provide answers to most major concerns will facilitate any change. It is necessary to have a number of people in the organization who are competent at setting structure and developing plans.

10. Provide experiences which simulate actual situations.

Continuous experimentation should be carried on which develops prototypes of anticipated changes. Teachers and administrators need experience to develop new skills regarding organizational abilities. More difficult organizational tasks can be confronted with increased expertise.

11. After making changes, stabilize your organizational patterns.

The organization is the instrument that is used as a means of reaching group goals. Stabilization permits the group to see their goals being better achieved.

Stabilization also permits individuals in the organization to have brief periods of needed security before moving onto new changes.

12. Have a periodic review of organizational staffing pattern.

Minor modifications over a period of time may cause some unrealistic distortions in the staffing patterns. The staffing pattern should be checked at different times against stated goals.

13. Provide a process by which roles can be abolished and by which new roles can be created as students' needs shift.

Periodically priorities should be re-established. The pattern of the organization should permit changes in roles and manpower location.

14. Seek answers to own unique problems.

No models capable of common application as yet have been developed. Emphasis should be placed on developing staff by focusing on internal problems and their solution.

Establishing New Roles

1. Recognize that the individual within the organization wants his role to continue.

Effort is required in learning a new role. Role changing for a teacher is a delicate and difficult process. The role of the administrator may be even more difficult to change. It will be necessary to have ways to deal with role changes.

2. The student will have a new role.

A school participating in differentiated staffing will reject the standard curriculum. The teacher will establish instructional encounters where the student will assume more of the burden for his own learning. Open labs, self-directed learning projects, and interactions with other students will provide new avenues of learning. Student dependency on a teacher will be a difficult norm to change.

3. The teacher will no longer be the sole provider of individual attention.

If the kind of attention that the teacher provides is qualitatively different, it may not be important to maintain the same amount of instructional time per week with a student. It is important to increase the adult density within the building.

4. Conduct in-service programs for the staff.

It is highly important that potential leadership development be a constant program. It is also important that the total staff be in continuous training programs. Teacher education at the university can only be to prepare the professional educator. Creative planning for professional growth must be an integral part of the administrator's job.

5. Be responsive to the community.

A comprehensive communication network must be established with the community. It must also be maintained at considerable effort. Attention should be given to the public's unlimited expectation of what the school is capable of doing. Differentiated staffing must provide for more responsiveness.

6. Retain key people for substantial periods of time.

Build on the staff strength that you have established. This frame of reference should provide the stability needed. Blend the staff with a backup of potential leaders and some followers. It will be necessary to secure staff commitment for some reason other than just a monetary reason. The highly qualified professional is mobile and can usually find a good salary elsewhere.

7. Perform a task analysis.

This thorough study should suggest the types of personnel that will be needed to move to differentiated staffing. It is in this area that considerable controversy will rage. Agreement on the tasks to be accomplished by a school would make the running of the school much easier.

8. Compile a staff inventory.

Utilize some matrix system in assessing the present strengths and weaknesses of the staff. Match the staff against the tasks to be completed. Where necessary realign the staff.

9. Differentiated staffing is linked to differentiated instruction.

A wide spectrum of professional and non-professional staff should permit individualization of instruction to a much fuller degree. At the same time differentiated staffing should permit teachers more opportunities for self-fulfillment in their professional jobs.

10. Formalize new role responsibilities.

Each new role carries with it certain specific duties associated with the teaching tasks. These duties should be weighted and ranked according to degree of difficulty and responsibility. General guidelines for the new role should be written.

11. Create new positions.

A substantial number of new positions could be developed that would permit the administrator greater latitude in arriving at staffing patterns. Pay for the jobs could be the same, but the function of the jobs could be different. Or jobs with different levels of responsibilities could be established.

12. New staff members must possess certain characteristics.

One characteristic is the ability to learn quickly. Another characteristic that will be mandated in some staff members is a flexibility that will permit them to change roles with passage of time. A strong emphasis will be placed on public relations. Logistical skills are required in any move to a more complex organization.

13. A teacher will need certain skills.

The most commonly mentioned are motivational behaviors, environmental control skills, structural design skills, and situational stimulation.

14. Adopt plans in opposition to the self-contained classroom taught by one teacher.

Teachers that move into new instructional patterns seldom return to the traditional classroom setting. It is essential that continual effort be expended seeking new approaches to the learning system. Plans that infringe upon the autonomy of the teacher in a private setting should be encouraged where feasible.

15. Do not be afraid to remove staff presenting the most resistance to new plans.

This would include paraprofessionals, administrators, teachers, secretaries or custodial staff. All moves should be well thought out and should be of a lateral transfer type. These transfers should be by mutual consent if possible and involuntary transfers would occur as a last resort.

16. Be prepared to pull out of the accreditation associations.

Most school systems experience little difficulty being accredited provided that they have instructional aides in addition to the standard amount of professional staff. The time that it takes to justify new procedures and patterns to the accreditation association may not be worth the benefits that belonging to the organization provides. Politically the recommendation to drop out should be done by a citizen's advisory committee and not the secondary school principal.

Economic Considerations

1. Perform a cost analysis.

This should be a five-year projection. It should be a realistic appraisal based upon input from the personnel department, the business office, plant planning office, secondary director's office, principal, and others in the organization as appropriate. This information should be made available to the board of education at the time of the approval of plans for the differentiation of staff.

2. Be prepared to secure additional money.

In realistic terms, differentiated staffing will cost more money. The community will support their schools provided they see a direct benefit. For differentiated staffing to succeed, additional services must be provided.

3. Operational cost of the program should be computed on a building level.

In large school districts, expenditures are to be recorded against a building level operation. Notification must be given to the principal of current budget balances so that pacing of expenditures may occur.

4. Members of the organization should be expected to live within budgetary allocations.

Teachers and administrators should be involved in budget building. Then they should exercise fiscal responsibility in adhering to the budget. Great care should be taken in utilizing existing resources when possible. An incentive program could be developed to help in budgetary control.

5. Additional expenditures should be provided for community school programs.

The rationale for differentiated staffing lends itself well to the establishment of broad community education programs. Part of the manpower pool can be utilized in such a program.

6. Establish a research and development fund.

This fund should be provided during the transitional period from regular staffing patterns to differentiated staffing. Some restrictions on the categories for which the money may be expended should be set forth. Control of such a fund must be through one person in the organization.

Negotiations

1. Pre-negotiate positions.

A number of different classifications can be established with corresponding salary schedules. The computer will be involved to a greater extent in

payroll operation and control. Considerable input can be permitted by teachers and administrators in creation of the new positions.

2. Negotiate a budgetary amount for resources and equipment.

Only when the teacher negotiating unit recognizes the need for more resources will this item occur. The bargaining unit must also consider the need for reallocation of the monies available.

3. Reject a merit pay plan.

Professionals desiring additional remuneration will have to accept wider responsibilities. Emphasis will be on pay as it relates to responsibilities and not on the time spent.

4. Be certain that you have a mutual consent clause.

This provision permits the school district to enter into temporary trial situation as organizational evolution is taking place. Temporary situations should later be put into the contract.

5. Keep local teacher organization informed of plans.

The administrator in the building must have experience in dealing with master contracts and negotiations. Continual dialogue should be going on between the school and the bargaining unit.

6. Negotiate criteria for staffing decisions.

Generally a student-teacher ratio has been the base for secondary school staff allocations. Some other factors should be considered, such as variety of educational program, total credits attempted, total credits passed, social and economic levels of students.

7. Anticipate points of difficulty.

Continual effort must be expended in this area. Certain major problems may be headed off by proper timing.

8. Be prepared to infringe upon teacher autonomy.

Management will exercise more internal control over such practices as training, entry into the profession and standards of work. Autonomy must be provided the teacher in execution of his job with students.

9. Negotiate job security, but not role security.

A great deal more lateral movement must occur within the organization. Some jobs should be selectively destroyed. New jobs should be created. Professionals must be provided with job security, but their role should be expected to change from time to time.

Change Process

1. Build a convertible building.

A new structure should provide multiple options. One option that should not be permitted is the ability of the organization to return to its old patterns. In most cases, the construction of an open space high school with some modifications should be encouraged.

2. Major tasks to be accomplished according to the master plan should be assigned to different people.

New blood has to be continuously pumped into any change process. If different people have major responsibilities, it is difficult for the building and instructional program to be solely the creation of a few people. This plan insures a broader base for commitment.

3. Establish a plan for securing commitment.

Many methods will have to be incorporated into any plan. Visitation to other schools, work sessions, simulating possible plans are but a few of many possible plans. It will require an extremely creative professional to secure commitment to differentiated staffing. The lead administrator must be highly committed.

4. Accept willingly a degree of crisis.

The control of crisis is essential to any major educational innovation. Crisis will occur at

different times during the change process. Techniques of conflict management must be applied to release tension that passes tolerable levels. A strong overall plan provides security to leadership in the midst of crisis.

5. Promote continuous staff self-renewal.

In the past people have pursued activities with a desire for economy of effort. Those staff members that enjoy doing what they are doing will have large amounts of energy. They will be capable of participating in new relationships. They will continually seek their own self-development.

6. Read extensively in the area of change planning.

Thorough understanding of the different mechanisms for bringing about change is important. Reading should help one in establishing the roots of the change. Planning strategies will evolve from this venture.

7. Plot an evolutionary process.

Don't be in a hurry to make the change. Provide periods of time during which change is minimal. This stabilization period will aid the next change movement. During the evolution people can understand the smaller steps much easier.

8. Develop a strong information processing system.

A great deal of reluctance by people to go along with change lies in their belief that poor data supports top-level decisions. The information processing systems should be continuous in its retrieval and should have contact points with all elements of the organization.

9. Perform a strong public relations program.

Most people do not have the time to be immersed in the change process. Usually the change is affecting them with very little involvement on their part. A good public relations program shows that the school cares.

10. Use time to your advantage.

Overreacting to a conflict or crisis may just precipitate another problem. Continue to check progress against a time line in your master plan.

11. Provide an allocation of time for planning.

Every segment of the school involved in the change to differentiated staffing must have time for planning. This time may be secured in a variety of ways. Staff may be released from regular commitments. Staff may be paid for additional hours worked. Many of the staff members will commit additional time for no pay. Usually a combination of all three methods will be employed.

12. Increase the amount of interactions between people.

Forums, workshops, dialogue sessions are but a few ways of increasing the interactive process. Additional interaction can provide the organization with a feedback mechanism.

13. Create situational leadership roles for teachers.

Small, short-lived organizations must be created to solve internal problems in the school. New leadership must be found for these organizations. These organizations must seek an answer to a problem and then dissolve. Each teacher, if possible should be given some degree of involvement as a leader of one of these organizations. It is assumed that a great deal of learning occurs during the leadership process.

14. A sophisticated system must be ready to deal with mediation and adjustment of conflicts.

It will be necessary that this mechanism react fast and be simple in basic principle. It will of necessity be used a great deal.

15. Recognize that differentiated staffing can be implemented with a strong commitment to the change process.

The data suggests that the transition itself is of a difficult nature. Great emphasis should be directed to dealing with the process.

16. Get major problems on paper.

Once problems are delineated on paper, their solutions can be sought. Systematic steps can be undertaken to seek solutions. People feel more secure as some of the major problems seem to disappear.

17. Recognize that the actual steps and skills necessary to produce change within the organization are not known.

Different methods, different change agents, different in-service plans provide different motivational impact for change. Anything that brings about the stated objective without leaving a wake of hostility behind it would be considered acceptable.

18. Recognize that 100 per cent commitment is not needed.

The degree of resistance depends upon the degree to which persons can resist without endangering themselves in the situation. Since a number of forces are at work in the change process, total commitment is a myth. The pattern of commitment can be analyzed and used in future planning.

19. Problem solving should be task oriented.

Usually a great deal of energy is expended in maintaining certain aspects of the organization. A problem-solving session should engage in the design of solutions and appropriate responses to realities. This may require the dismissal of some traditions.

Leadership

1. The principal will still be the leader in a high school utilizing differentiated staffing.

His function will have to change if he is to remain the leader. The community will continue to view this person as the leader. Staffing allocations and assignments will remain under his jurisdiction.

2. The principal will be responsible for setting the time table for change.

He must be perceptive of needs. He should have the responsibility for setting up deadlines for

tasks that need to be completed. Intermittently he will have to set structure and then decide when to change the structure.

3. Communication techniques must improve.

With an increasingly complex organization, the demand is for better and faster communications. The administration must streamline this process. New methods must be used to prevent chaos. Once new communications have been established, it will probably be necessary to continue them.

4. The principal must manage change.

Conflict resolution will become a top priority. It is not necessary that he be the change agent, but rather that he is capable of managing the change process. The principal must be capable of reducing the distortions of reality in conflict situations. Through communication, mediation, and deliberation the conflict must be compromised.

5. The principal's role must change.

Differentiated staffing cannot succeed without a change in the principal's role. It is unlikely that only the teacher's role will change in the new organizational format. The administrator may be extremely reluctant to change his role.

6. There must be an increase in mutual consent procedures.

The dynamic leader will share with the professional staff many of the decisions that need resolution. By allowing for participation in such a process, he will insure a greater degree of acceptance in the final decisions.

7. The leader must be capable of sustaining energy on more than one front at a time.

The administrator in a high school utilizing differentiated staffing must be knowledgeable in a wide variety of situations. Staff deployment, resource allocation, scheduling procedures, conflict resolution, public relations, student activities are but a few of the areas where competence will be required. The true leader must be capable of understanding and coordinating all of these areas as well as others.

8. The leader must have a high level of tolerance for ambiguity.

The tolerance level must be high during the transition from traditional staffing to differentiated staffing patterns. Once the organization has reached a point where some standard operating procedures can be employed the ambiguity will partially disappear. Until that time the leader must be able to feel comfortable in situations where no answers appear.

9. The reality of his job is action.

The leader must move into action which changes consistently with his own commitments. This action breeds further action. Most decisions that the leader makes are designed to bring about some degree of change. He must acquire sensitivity to timing and knowing when motions can be made in the direction of his commitments.

Resistance

1. State goals clearly.

Recognizing that there may be value dilemmas inherent in the stated goals, it would seem wise to delineate goals in trying to establish differentiated staffing in the high school. Some members of the staff will see the stated goals as inevitable positions and will thus proceed to get on with the tasks.

2. Bring in outside input.

It is difficult for an organization to change itself without input from the outside. Visits, workshops, and consultants are but a few of the ways that this input can be achieved.

3. Involve a wide range of people when seeking solutions.

Utilize diagonal slice groups when possible. These groups composed of people from different levels of the organization aid in communication also. Involving a wide range of people insures that most genuine concerns will be raised. It also gives a mechanism to disseminate solutions back to the people concerned.

4. People must think in terms of helping the organization.

Generally people think in terms of helping themselves. Classroom teachers have in the past expected themselves to decide internally and individually questions of classroom organization and method. It is understandable why they might oppose differentiated staffing. As they help the organization there must be benefits that they are capable of securing.

5. A favorable environment supports good planning.

The organization must be seeking better ways of running the learning process. Continuous experimentation must be carried on. Improvement must be attacked from a number of angles. The environment that the organization establishes will be instrumental in making any staffing changes.

6. Develop new techniques to deal with resistance.

Usually the resistance is a reaction from incomplete information. Permit participation in how the change will be made and not in the philosophy of it. It is also important to keep personal opinions out of the change process. Tie the change to organizational objectives, rules, and the present state of affairs.

Evaluation

1. Be prepared to design or adopt new assessment tools.

As a school moves to differentiated staffing, new methods of evaluation will be sought. The data sought will also be different. It would seem important to set the list of educational objectives prior to any change in staffing patterns.

2. Use a wide variety of sources for data.

In making an overall evaluation of the worth of a program, a number of yardsticks should be applied. The evaluation should be continuous and involve all segments of the organization. Attitudinal information will be important.

3. Use an outside source for any thorough evaluation of the program.

Prestate the criteria for success of the program. Members within the organization have a biased interest in seeing that the program does succeed. An outside source could be much more objective. The outside source could also be responsible for the design of the measuring tools.

4. Make evaluation a long-range process.

Differentiated staffing is not an experiment, but rather an evolution. Evaluation should be used to guide the development of the system. Evaluation should not succeed in forcing the return to traditional staffing patterns. Three to five years will probably be required to make any significant change in the organization. Increased efficiency should result when people become familiar with new operating procedures.

5. The organization should have a feedback mechanism.

The leadership should be aware of internal difficulties. Corrections which are necessary must be made when convenient. Continuous feedback is a sign of a healthy system.

6. The evaluation should measure services provided.

Differentiated staffing contends that increased services can be provided. If additional money is to be spent, these increased services must be documented.

7. Make the evaluation as simple as possible.

Any thorough statistical study will be discarded by many as rhetoric. Results should be tabulated in an easy-to-understand form.

8. Plans should not be abandoned after the first evaluation.

The measurement should guide any directional changes that need to be made. The rate of progress should be determined if possible. The measurement should also state the location of the organization in relation to the stated goals. Generally, a school retreats fast in the face of any initial poor evaluation.

9. Community acceptance must be measured.

The availability of survey results is a great asset at this stage because they often contain disturbing truths which cannot be explained away with wishful thinking. Thus, community relations has a built-in reality principle, which can never be ignored.

CHAPTER IV

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

Summary

Great interest is being shown throughout the country in differentiated staffing. Administrators see it as a way to achieve better utilization of available resources. Teachers see it as a way to achieve greater professional status.

Generally, the concept has made progress into the instructional programs of the elementary school. Resistance has occurred at the secondary school level. The organization of the secondary school has promoted the dissemination of subject matter content. Paraprofessionals have not had the appropriate skills and background to take over many of the duties and responsibilities required of the teacher.

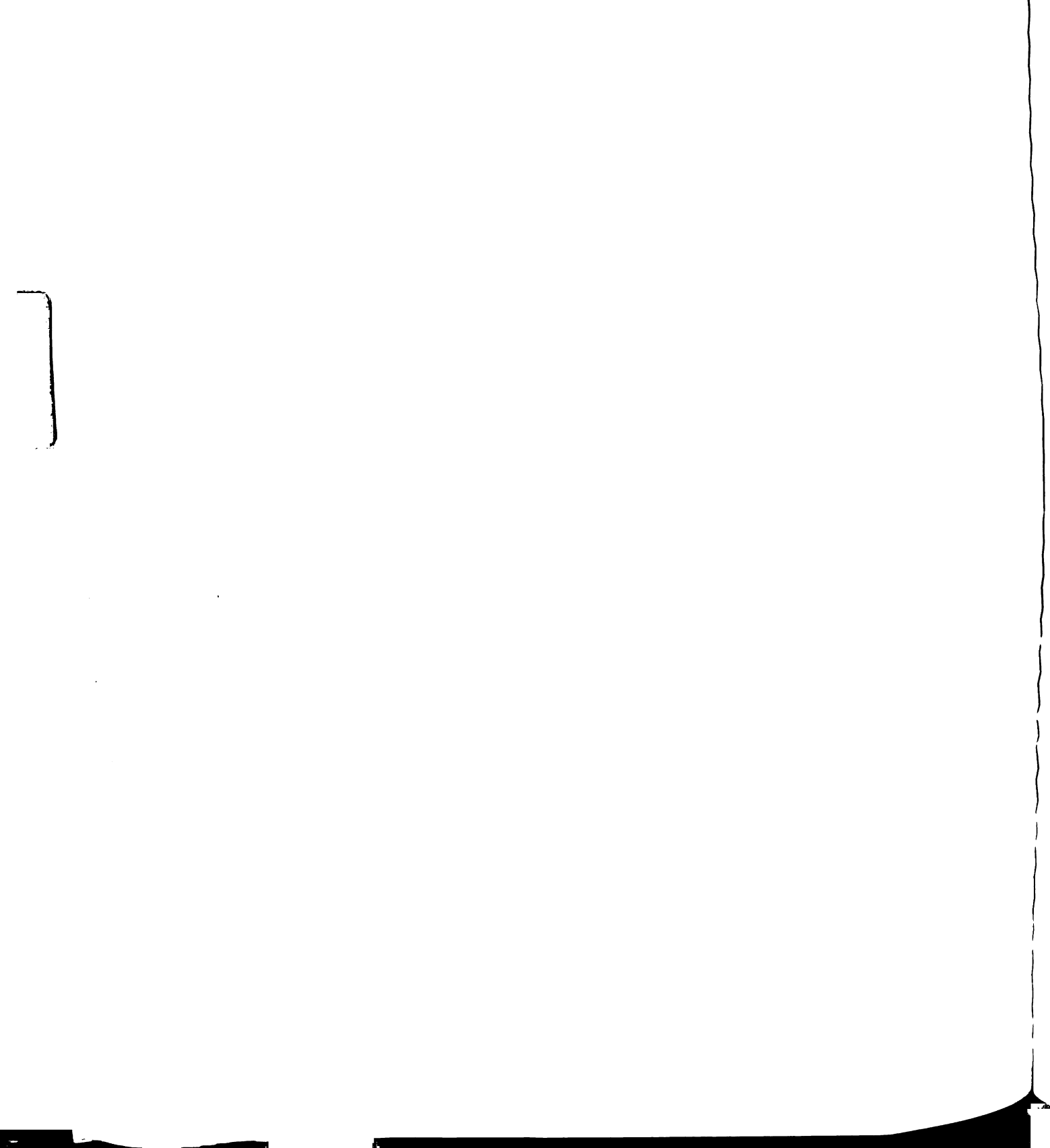
An interesting feature is that most of the paraprofessionals that have been hired have been women. They have found it easy to adapt to the instructional program of the elementary school. They work short periods of time with very little outside responsibility. Their pay has been very minimal.

Wealthy districts have added paraprofessionals to their ranks to support the professional staff member. In almost all cases, the addition of the paraprofessional has been an additional operating expense to the school district. The rationale used to justify the additional cost has generally been that greater services were being provided.

Any system that provides expanded services to its clients will find itself with an increased amount of coordination being required. No longer will a principal be able to understand and coordinate all aspects of a comprehensive secondary school.

Technological changes will exert a pressure on the system to seek new methods for learning. Differentiated staffing itself places a mandate on the system to move to differentiated instruction. The ultimate goal of differentiated staffing is to increase the degree that the organization will be able to provide individualized instruction.

Additional demands are placed upon the system to change the grading system, the time format, the scheduling process, certification requirements, library operation, etc. Since all of these demands come at the same time, teachers and administrators find themselves faced with a stiff challenge.



In the past, the teacher has been permitted to operate in a self-contained classroom with very little restriction from the outside. Recently the advent of the open space school has mandated increased demands on the teacher to work cooperatively with other adults. The teacher has found himself faced with the task of sharing ideas and structuring curriculum with other teachers. Gradually, this process led to "team teaching" arrangements.

Differentiated staffing has evolved somewhat from the "team teaching" concept. Team teaching requires a team leader who provided structure and leadership and received additional remuneration. Differentiated staffing requires further refinement of responsibilities and redefinition of roles. It results in more of a vertical hierarchy to carry out the instructional program.

In the past, the supervision of the instructional program has been the responsibility of the principal. As the structure of the secondary school has become more complex it has become necessary to create departmental leadership positions.

The process of reallocating roles and resources is not an easy one. Many school districts are on the verge of implementing the concept. Considerable change will occur after some districts work out the operational problems that are inherent in differentiated staffing.

This study has undertaken to identify some of the areas of difficulty that secondary schools faced as they made the transition from traditional staffing patterns to differentiated staffing patterns. In Chapter III, administrative courses of action were proposed that a school district might employ during such a transition.

Summary of Conclusions

Data collected from questionnaires sent to seven school districts presently engaged in differentiated staffing suggested numerous conclusions. This section will summarize the major conclusions drawn from the analysis of the data. A few of the conclusions will not be supported by the data directly, but are the objective evaluation of the author after two years of extensive work on the concept of differentiated staffing.

Little research has been conducted in the area of differentiated staffing. Differentiated staffing is a rare concept in the secondary schools of the country. As more of the 30,000 high schools experiment with new staffing patterns, one can expect to see a corresponding increase in research on the subject.

A great deal of educational rhetoric has been used in explaining the concept but differentiated staffing still does not have a well-established definition.

The presence of three levels of instructional staff with different pay scales is accepted as a common criteria. The other important characteristic of differentiated staffing is that all members of the professional staff are engaged in direct instruction with students.

Differentiated staffing mandates a new role for teacher and administrator. Individualization of instruction is the common goal. Students will be exposed to more options than ever before. They will have greater burden placed upon them for their own learning. Teachers will take on roles where they emphasize learning rather than the teaching of content. Teachers will need time to learn their new roles. With more teachers assuming leadership roles in the school, the role of the administrator will change. He will be in charge of a more complex operation requiring a wide variety of skills to administer.

All new educational programs should be weighed against the effects upon the student. Differentiated staffing will provide more benefits to the student. More courses will be offered to the student. The quantity of student-teacher contacts will lessen, but the quality of the contacts should be much better. The student will find some disadvantages with differentiated staffing. As the services that the school provides are

expanded, the student will experience some problems inherent in the new bureaucracy.

Differentiated staffing will result in an expanded use of paraprofessionals for instructional tasks. It is important that these auxiliary persons have enough training and in-service to be able to perform the tasks the school will assign to them.

Staff selection, staff training, and staff development will become a major task to perform in schools of the future. Differentiated staffing requires considerable time for in-service. Planning, coordination, and design of instructional programs will all demand more time. Differentiated staffing requires more planning time than a school functioning with a traditional staffing pattern.

x 8) Considerable variety is available in the new instructional roles being created throughout the country. Regardless of the titles given to the new roles, teachers will find their role in the schools strengthened because of differentiated staffing. At the same time the teacher will find himself taking a greater responsibility in the organization. Bilateral management will become very common in the operation of the school.

9) Differentiated staffing will result in an increase in the cost of operating the secondary school. Most of the original schools engaging in experiments on

staffing patterns received grants from the United States Office of Education via the EPDA School Personnel Utilization Project grants. The rationale for additional expenditure of money is usually based upon expanded services to the student and community.

10. State certification codes and accreditation standards do not appear to be major problems. Most school districts engaged in differentiated staffing spend considerable money on their educational program and have usually added nonprofessional staff to support the professional personnel. The data also suggested that the negotiating process was no more difficult because of differentiated staffing.

11. Teachers working in this system will find themselves with greater degrees of flexibility. Department decisions will take care of many of the internal modifications. Differentiated staffing will require teachers to acquire increased abilities to set goals and solve problems.

12. The transition to differentiated staffing will require additional energy and endurance from administrators involved in the process. On paper, the process may look easy, but in reality there will be many logjams. Planning time will not always be available. Extra fiscal support will be lacking at times. Much of the manpower may seek to return to domains where they feel more

secure. If administration is to lead in establishing the process, they will have to be able to sustain greater effort.

19 A number of the components of the educational system will all have to change at the same time if differentiated staffing is going to work. Modifications must occur in the physical structure of the building. Curriculum revisions are necessary. Staff retraining programs are a must. New methods must be employed in scheduling students. Consideration must be given to modifications in time format, class size, and even teacher load. Any attempt to move to differentiated staffing without increasing instructional resources will fail.

15 Differentiated staffing should permit the staff to be more adaptive to changes that will occur in the future. Change is the natural characteristic of our society. Our organizations are being asked to respond rapidly to changing environmental factors. The manpower pool available in the educational setting must assess changing conditions and adjust the organization accordingly.

16 Differentiated staffing will result in a greater burden being placed upon the student for his own learning. It is now impossible in the secondary school to give a student an adequate command of the facts in each major

subject area which will serve him throughout the balance of his life. The student must be taught how to learn. The dissemination of content knowledge is no longer the number one priority of the secondary school.

Any model for differentiated staffing should take into account that change is constant and that modifications will be needed in the future. It would be foolish to move into a differentiated staffing pattern that becomes rigid. The change process will require a great deal of energy from the leadership. Coordination needs, structural requirements of the organization, authority structure, and degree of specialization will all require the establishment of new operating procedures. The transition to differentiated staffing will be more difficult than the operation of differentiated staffing once the pattern is established.

19. A wide variety of new instructional roles will be created. Standardization will become difficult. A school district might be wise to limit the possible number of job classifications. Provision will have to be made to permit people to change job classifications.

20. Standard methods of evaluating the instructional program will not be enough when evaluation of differentiated staffing is considered. Measurement of attitudes will become a more important category of the evaluation. Amount of use of resources will become more

important. Another measure will consider the options open to students. Many components will be considered during the evaluation of a school using differentiated staffing.

) The seven school districts used in this study did not consider man-machine systems as an important part of the rationale for differentiated staffing. As industry moves more into the educational field and when the total delivery system for the instructional program begins to change, differentiated staffing will be an important concept that will be employed. In the future, many high schools will use different patterns of differentiated staffing.

) Constructive community membership in the use of schools will also give impetus to increased use of a wide variety of manpower in the secondary school. Recreational directors, security officers, community school directors, water safety instructors, stage crew technicians are but a few of the many new types of jobs that will become available. Usage of the school from morning until night twelve months of the year will change the manpower needs. Different people employed for different responsibilities will permit people to better use their schools.

Suggestions for Further Study

Considerable interest in differentiated staffing has developed recently. There is definite need for further investigation with many of the components of a differentiated staffing program. Much of the recent literature is rhetoric and is not substantiated by research.

A lack of secondary schools actually engaged in differentiated staffing explains the absence of sufficient research on the concept. As more schools make the transition to differentiated staffing patterns, hard data should become available. It is suggested that more research be done on the following topics:

1. Characteristics of school districts utilizing differentiated staffing patterns.
 - a. Are they large or small districts?
 - b. What type of students attend these schools?
 - c. Is there more than one secondary school in the district?
 - d. What is the economic base of the school district?
2. Rearrangement of the administrator's role.
 - a. What tasks were deleted from his role?
 - b. What new tasks were added because of differentiated staffing?
 - c. What is his position in the decision-making process?
 - d. Has he maintained his salary position in relationship to teachers?
3. Reallocation of budgetary dollars.
 - a. Has there been an increase in money budgeted for resources?

- b. Has there been an increase in money budgeted for planning and in-service?
 - c. Have teachers been involved in budget allocation?
- 4. Teacher retention rates.
 - a. Has the evaluation process changed?
 - b. Has differentiated staffing retained the good teachers?
- 5. Student-teacher ratios.
 - a. Has the student-teacher ratio increased?
 - b. Has the adult density increased?
- 6. Number of instructional levels.
 - a. What is the usual number of instructional levels for the professional?
 - b. Are there communications difficulties between levels?
- 7. Teacher involvement in the decision-making process.
 - a. Is a new structure set up for decision making?
 - b. Are the teachers held accountable for decisions?
 - c. Are there more decisions to be made?
- 8. Amount of clerical work performed.
 - a. To what extent does the professional still have clerical work?
 - b. Is there an increase in the total amount of clerical work?
- 9. Differentiated instruction.
 - a. Are there more benefits for the student?
 - b. To what extent is individualized instruction performed?
- 10. Building modifications.
 - a. What type of working spaces do the para-professionals need?
 - b. What amount of spaces should be large group or small group spaces?

11. Colleges and universities preparing teachers.

- a. How many are preparing personnel for differentiated staffing programs?
- b. What type of program are they employing?
- c. What are the long-range supply and demand projections for the teacher job market assuming all schools were utilizing differentiated staffing?

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APPENDICES

APPENDIX A

February 23, 1971

Dr. Fenwick English
Arizona State University
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Dear Dr. English:

During our telephone conversation on Tuesday, February 23, 1971, you consented to help validate my questionnaire on "Differentiated Staffing." I appreciate the time you are willing to take.

You have been selected by me because of your competency in the field of staff utilization. My committee chairman, Dr. Stanley Hecker of Michigan State University, has concurred with my selections. Your comments relative to my questionnaire will serve to make the instrument much more realistic.

The title of my dissertation will be "Differentiated Staffing: Administration Courses of Action." The questionnaire will survey secondary schools in the country that have changed their staffing pattern. It will be mailed to the person considered most responsible for the implementation to "Differentiated Staffing."

My data will be reported in the following broad categories:

1. An analysis of the rationale for "Differentiated Staffing."
2. An analysis of counterproductive components.
3. An analysis of each of the major areas of the survey.
4. An analysis of the overall feasibility of "Differentiated Staffing" from an administrative viewpoint.
5. An analysis of evaluation as it relates to administrative courses of action.

It is important that you realize that the questionnaire consists of a number of factors that tend to change when staffing patterns are changed. The respondents will be expected to indicate an increase or decrease in the particular factor, following their schools' shift to

"Differentiated Staffing." (Pages 2, 3, 4, 5, 6, 7). The respondents will also be expected to indicate relative importance of factors dealing with rationale and evaluation. (See pages 1 and 8.)

As you analyze items in the questionnaire please use the following format. If possible please use a red pencil or pen.

1. If item is pertinent and should be retained, make a check beside it.
2. If item is pertinent, but needs revision in wording, mark a capital R beside it.
3. If item is not pertinent, run a line through it.

In order to make my questionnaire as pertinent as possible, I would like to contact you again by telephone on Tuesday, March 2, 1971, at 10:30 A.M. to clarify any concerns that you might have with the instrument. After the telephone conversation, I would appreciate the return of the questionnaire.

Sincerely,

Darrel Weller
Assistant Principal
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Grand Rapids, Michigan

GENERAL COMMENTS

1. Length
2. Format
3. Omission of Important Material
4. Clarity of Instructions
5. Items Included in Questionnaire
6. Other Suggestions

APPENDIX B

APPENDIX B

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APPENDIX C

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ESTABLISHING A RATIONALE FOR DIFFERENTIATED STAFFING

<p>Instructions: Each of the following statements has been advanced as a rationale for differentiating a staff. Rate how important they were to your school as you moved to differentiated staffing.</p>	Very Important	Important	Of Little Importance	Not Important	Average Score for Item
1. Searching for efficiency.					
2. Providing students with a greater responsibility for their own learning.					
3. Building of a career ladder.					
4. Providing teachers with a stronger voice in determination of school policy.					
5. Creating an active role for the learner.					
6. Placing the teacher in a new role as facilitator of learning.					
7. Providing better accountability for the organization.					
8. Individualizing instruction.					
9. Preparing for the advent of man-machine learning systems.					
10. Establishing teacher performance as the essential criteria to be used in staffing a school.					
11. Promoting the ability of the organization to become adaptive.					
12. Strengthening the status of the teacher.					
13. Bringing more community people into the school staffing pattern.					

ESTABLISHING NEW ORGANIZATIONAL PATTERNS

Instructions: Indicate by checking the appropriate category, any change in the following items, after your school moved to a differentiated staffing pattern.

	Large Increase	Some Increase	No Increase	Decrease	Average Score for Item
1. Data processing and computer capability within your system.					
2. Subgrouping of students by the professional.					
3. Time set aside for planning and coordination.					
4. Flexibility permitted a department to change their staffing pattern.					
5. Time spent by teachers developing instructional materials.					
6. Time spent in long-range planning.					
7. Length of the work year for the professional.					
8. Number of courses available to the student.					
9. Input from consultants from outside the school system.					
10. Ability of teachers to create new organizational patterns.					
11. Amount of time needed for coordination between teachers.					
12. Restrictions placed on class size.					
13. Restrictions placed on the number of teacher preparations.					
14. Amount of in-service time needed to familiarize teachers with new organizational patterns.					
15. Mini-courses available to students.					
16. Amount of actual teacher-student contact hours allocated to a course of study.					
17. Time needed by administration for supervision.					

ESTABLISHMENT OF NEW ROLES

Instructions: Indicate by checking the appropriate category, any change in the following items, after your school moved to a differentiated staffing pattern.

	Large Increase	Some Increase	No Increase	Decrease	Average Score for Item
1. Time spent writing job descriptions.					
2. Time spent in analysis of staffing patterns.					
3. Commitment by teachers for differentiated staffing.					
4. Number of different positions open to the professional.					
5. Time spent on legislation and certification relative to the paraprofessional.					
6. Conflict between teachers and administrators over working conditions.					
7. Conflict between teachers and administrators over wage differences.					
8. Conflict between teachers and administrators over work load.					
9. Time needed by the new teacher to function effectively.					
10. Departmental involvement in teacher load determination.					
11. Adult-pupil ratio within the building (count professionals and auxiliaries as adults).					
12. Student acceptance of the new roles for teachers.					
13. Community acceptance of the new roles for teachers.					
14. Amount of independent study time assigned to students.					
15. Amount of time the professional spends in contact with students.					
16. Number of students contacted by the professional.					
17. Instructional tasks performed by the paraprofessional.					
18. Use of teacher load formulas.					
19. Autonomy for the professional.					
20. Number of formal meetings within the building.					

NEGOTIATIONS

Instructions: Indicate by checking the appropriate category, any change in the following items, after your school moved to a differentiated staffing pattern.

	Large Increase	Some Increase	No Increase	Decrease	Average Score for Item
1. Ability to change teacher-pupil ratios.					
2. Time spent on negotiations.					
3. Time needed to process grievances.					
4. Restrictions placed upon administrative decision making.					
5. Length of the working day for the teacher.					
6. Time needed for evaluation of teachers.					
7. Responsibilities for the teacher.					
8. Ability to dismiss a professional.					
9. Time spent on overall conflict resolution.					
10. Deviations from the master contract.					
11. Conflict between professional and paraprofessional.					
12. Teacher demand for merit pay.					
13. Support of the local teacher negotiating unit.					
14. Involvement of the state teacher's association.					
15. Bilateral management (teachers involved, consulted, and agreement sought before decision making) at the building level.					

ECONOMIC CONSIDERATIONS

Instructions: Indicate by checking the appropriate category, the impact made upon the budget for your school after you had moved into a differentiated staffing pattern.

	Large Increase	Some Increase	No Increase	Decrease	Average Score for Item
1. Amount of money spent per student.					
2. Budgetary amount allocated to teacher salaries.					
3. Budgetary amount allocated to administrative salaries.					
4. Budgetary amount allocated for instructional materials and equipment.					
5. Budgetary amount allocated to para-professional salaries.					
6. Time spent on long-range cost analysis.					
7. Time spent evaluating economic input with specific outputs.					
8. Time spent for in-service training programs.					
9. Budgetary amount allocated for substitute teachers.					
10. Additional wages paid the professional for summer work.					
11. Data processing and computer costs.					
12. Total budget allocated for your school.					
13. Demand for administrative secretaries.					
14. Demand for clerical help for the teacher.					

CHANGE PROCESS

Instructions: Indicate by checking the appropriate category, any change in the following items, after your school moved to a differentiated staffing pattern.

	Large Increase	Some Increase	No Increase	Decrease	Average Score for Item
1. Ability of teachers to set goals.					
2. Ability of teachers to solve problems.					
3. System's ability to involve teachers in formal decision making.					
4. Research under field conditions.					
5. Community involvement in the change process.					
6. Strength of informal groups within the professional ranks.					
7. Student involvement in the change process.					
8. Use of educational rhetoric about change.					
9. In-service training sessions within the system.					
10. Federal money for the effort.					
11. Tolerance level of the staff for more change.					
12. Written procedures for operations.					
13. Willingness of teachers to accept decisions of others.					
14. Ability of teachers to interact with others.					
15. Ability of the system to change or modify plans.					
16. Number of teachers who have leadership roles.					

AREAS OF RESISTANCE

Instructions: Listed below are possible areas where resistance may occur as a school moves to differentiated staffing. Indicate by checking the appropriate category the extent of resistance that your school experienced as it moved into a differentiated staffing pattern.

	Definite Resistance	Some Resistance	Little Resistance	No Resistance	Average Score for Item
1. Lack of experience with new professional roles.					
2. Lack of experience with new organizational patterns.					
3. Resistance to change in general.					
4. Fear of a teacher hierarchy.					
5. Increased time for negotiations.					
6. Increased administrative tasks for the professional.					
7. Community acceptance.					
8. State certification codes.					
9. High turnover rate for the professionals.					
10. High turnover rate for the para-professionals.					
11. Accreditation association standards.					
12. Local teacher negotiating officials.					
13. Additive cost of the program.					
14. Leadership vacuum.					
15. Loss of key people promoting the change.					
16. Personnel department ramifications.					
17. Demand by teachers for more planning time.					
18. Changing role for the administrator.					
19. Student attitudes.					
20. Seniority clauses in the master contract.					

EVALUATION		Spend Large Amount of Time	Spend Some Time	Spend Very Little Time	Spend No Time	Average Score for Item
Instructions: Indicate the amount of time spent on evaluation of the following items, after your school moved to a differentiated staffing pattern.						
1.	Assessment of academic achievement.					
2.	Assessment of student study habits.					
3.	Assessment of student self-responsibility.					
4.	Assessment of teacher attitudes.					
5.	Assessment of community awareness and acceptance.					
6.	Assessment of student attitudes.					
7.	Assessment of work performed by para-professionals.					
8.	Assessment of attitudes of para-professionals.					
9.	Assessment of teacher load.					
10.	Assessment of student dropout rate.					
11.	Assessment of student attendance patterns.					
12.	Assessment of college entrance rates.					
13.	Assessment of number of scholarships earned.					
14.	Amount of research being performed at the building level.					

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