Six chapters of a compendium consider major aspects of intermediate school operation. Chapter 17. "Organizational Structures." discusses the nature of organization, indicates the importance of an understanding of organization in establishing intermediate schools as an integral part of an educational program for youth, and explores the administrative aspects of organization. Chapter 18. "Administrative Services." discusses the principal's leadership role and administrative tasks as well as the roles of the administrative team and other staff members who perform administrative functions. Chapter 19. "Staff Personnel Practices." suggests guidelines for acceptable personnel practices that should strengthen staffing and provide optimum working conditions. Chapter 20. "School Plant Designs." discusses desirable physical components of intermediate schools. Chapter 21. "Relations with the Community" considers basic aspects of the communication process. the nature and purpose of sound school-community relations, roles of staff personnel and lay citizens, and procedures for working with organized community groups and the home. especially disadvantaged parents. Chapter 22. "Evaluating the Program." treats the meaning and importance of evaluation and reviews evaluation types, criteria, procedures, and tools. (JK)

THE
INTERMEDIATE
SCHOOLS

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AND ASSOCIATES

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Preface

The vigorous movement now underway to replace the junior high school with the middle school as the intermediate unit for children in late childhood and early adolescence calls for a close look at both units and their place in the educational system.

For years the junior high school reputedly served as the unique institution for young adolescents and offered an educational program designed and fitted to the nature and needs of its members. But within the last decade and a half a growing body of criticism has been directed at the junior high school and has been in large measure behind the emerging concept of the middle school.

Whether or not the middle school should replace the junior high school is a question demanding an appropriate answer. Instead of answering the question directly, the position is taken here that a careful look should be given to the educational ideas, concepts, and possibilities inherent in both units before a decision is reached.

As will be shown in the chapters that follow, one form of grade organization may be as desirable as another depending upon existing conditions in school and community and the ends to be served. Further, there is no reason why identical approaches to the learning process should not be adopted if the approaches are based upon similar educational and psychological considerations. It is recognized, in this respect, that sharp differences do exist when the junior high school takes its orientation from the senior high school and abandons concern for general education and the development characteristics of its learners.

In keeping with this view, the book treats both types of intermediate schools as having similar philosophies and purposes in seeking to provide a modern, dynamic program of education experiences for youngsters in

the prepubescent and early adolescent stages of growth and development. Part one gives an overview of middle and junior high schools with reference to such matters as numbers, enrollments, grade organization, programs of studies, and other pertinent information. Part two concerns the educational foundations underlying intermediate schools and discusses the origin of these schools, the nature of the learners, and the instructional considerations involved. Part three deals with the instructional program, including provisions for special education, and treats several aspects in detail. Part four covers pupil personnel and special services provided in intermediate schools. The last part of the book takes up organization and administration.

The conception and outline for the book were developed by Leslie W. Kindred who also wrote chapters 1 and 2. The remaining chapters were prepared by individuals who had contributions to make in special areas of intermediate school education. Chapters 3 and 19 were written by Rita J. Wolotkiewicz; Chapters 4 and 6 by John M. Mickelson; Chapters 5 and 7 by Leonard E. Coplein; Chapter 8 by Harold A. Delp; Chapters 9 and 16 by Gene D. Maybee; Chapter 10 by Margaret Hayes Grazier; Chapters 11 and 12 by Robert W. Mayer; Chapter 13 by Willard J. Congreve; Chapter 14 by Lauretta Woodson; Chapter 15 by Henry L. Isaksen; Chapters 17 and 18 by Mark Smith; Chapter 20 by W. Frank Johnson; Chapter 21 by Gene C. Fusco; and Chapter 22 by Louis S. Monk.

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LESLIE W. KINDRED

V

ORGANIZATION AND ADMINISTRATION

17

Organizational Structures

It will be the purpose of this chapter to discuss the nature of organization and to indicate the importance of an understanding of organization in establishing intermediate schools as an integral part of an educational program for youth. From this discussion, recommendations will be drawn for the organizational structure of intermediate schools. These recommendations will include internal structural arrangements and special techniques.

The chapter will also explore the administrative aspects of organization and the importance of interrelationships. Chapter 18 will expand upon this theme and delve more deeply into administrative services.

THE NATURE OF ORGANIZATION

Any group that has a purpose to perform must have some form of organization in order to achieve its avowed ends. Organization is the vehicle by which the people of the institution are permitted to function. It is the process which provides the type of working relationships among its members that achieve the institution's programs.

Since separate volumes are available that explore the meaning and function of organization, it is hardly feasible to explore the area in depth here. It is important, however, to have some understanding of the nature and purpose of organization. Its nature is explained by Wynn:

> Organization is typically regarded as the first step in the administrative process. It is a necessary and primary function of administration, regardless of the size and nature of the enterprise. The purpose of organization is to clarify and distribute responsibility and authority among individuals and groups in an orderly manner

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consistent with the purposes of the institution. Organization is, then, an attempt to accomplish the purposes of an institution through an established division of labor and responsibility. If an organization is to be effective and efficient, these institutional purposes must be clearly defined and understood. Organization, by the foregoing definition, is an effort to arrange an orderly and efficient distribution of authority and responsibility. This permits specialization of function through the subdivision of tasks and also permits the fixing of accountability.[1]

Wynn states further, "The importance of good organization is readily apparent—when it exists, things get done efficiently. People understand the metes and bounds of their authority. They know what to do and to whom to report. Changes are accomplished smoothly and emergencies are infrequent or non-existent."[2]

Griffiths identifies two types of organization, formal and informal. He states:

Formal organization *is that system of roles which is arranged in a hierarchical manner and the system is officially established to perform one or more tasks.* Informal organization *is the system of interpersonal relations which form within an organization to affect decisions of the formal organization, and this system is omitted from the formal scheme or is in opposition to it.*

• • •

The formal organization is established to make decisions which the governing group feels will achieve its task. The informal organization attempts to influence these decisions so as to accomplish the task of the organization as it sees the task. The purpose of organization, communication, control, planning, or any other function of administration is to improve the quality of decisions made for the achievement of the organization's task.[3]

The organizational structure thus provides the means whereby the objectives of the school may be met. It accomplishes these ends through the medium of people. Therefore, it becomes important that as we consider the various aspects of organization we keep this point in mind. The good organizational pattern is not only efficient, but it provides an opportunity for its members to gain satisfaction from their contribution to the organization. The importance of this relationship will recur throughout the consideration of the various facets of organization.

1 D. Richard Wynn, *Organization of Public Schools* (Washington, D. C.: The Center for Applied Research In Education, Inc., 1964), p. 32. Copyright © 1964 by The Center for Applied Research In Education, Inc.
2 *Ibid.*, p. 33.
3 Daniel E. Griffiths, "Toward a Theory of Administrative Behavior," in *Administrative Behavior in Education,* eds. Roald F. Campbell and Russell T. Gregg (New York: Harper & Row, Publishers, Incorporated, 1957), pp. 383–84.

Thus, the school system, and correspondingly an intermediate school as a unit of the school system, requires organization in order to perform its tasks efficiently and to utilize the highest capabilities of its staff in achieving its goals. We shall consider those organizational schemes which are most important to the intermediate school.

GRADE COMBINATIONS

Regardless of the name given to an intermediate school, be it junior high school, middle school, or intermediate school, the reasons for this unit of the educational system are basically the same. Each of these schools is organized, hopefully, to meet the needs of boys and girls who are experiencing the problems of early adolescence. Young people at this point of life are encountering a physical, emotional, and mental stage of development that is unique enough to require a separate school designed with these elements in mind.

A consideration of the possible grade combinations in the intermediate school should probably be preceded with a review of the current thinking regarding this subject in both the junior high school and the middle school.

Junior High School Combinations

The junior high school has traditionally included grades seven to nine. From its earliest days until quite recently, this has been the recommended and predominant grade organization. As the junior high school became more popular, other grade combinations came under the "roof" of this school. These have primarily been seven–nine, six–eight, and six–nine. The reasons for these combinations have varied from community to community.

Unfortunately, these reasons have frequently been related to factors other than an educational consideration. For example, the seventh- and eighth-grade organization has become quite popular in states such as Illinois, where the financial structure, as dictated by the state, divides most districts into either elementary (through grade eight) or secondary (grades nine to twelve). While it is possible to have a unit district that encompasses all grades, other factors, such as the limit upon bonded indebtedness for a unit district, often discourage this.

Thus, in these states, the seventh- and eighth-grade junior high school is the predominant organization, not because junior high school educators want it that way, but because it has evolved that way due to a powerful extraneous factor. In such instances, many educators saw a great disadvantage in having a turnover of half their student body each year; the result is that a number of junior high schools incorporated the sixth grade to form a three-year school and thus provide more stability in the student

body. This also allowed the development of student leadership to a much higher degree.

While other examples of how grade organization came to be included in the junior high school could be pursued, this illustration should be sufficient to demonstrate that junior high educators have been faced with situations beyond their control in many instances, and have patterned an organization which best met their needs under the circumstances.

This was the picture until recently. Several years ago those in junior high schools began to ask some serious questions about the optimum selection of grades to be included. It was argued that the eighth-grader of today was at least a year advanced over his counterpart of ten years ago in sophistication, maturity, and general fund of knowledge. They reasoned that if this was true, the junior high school, to meet its original objectives, should cater to grades six through eight rather than seven through nine.

There were also those who had long argued that, since grade nine was the first year of senior high school, it should logically be housed in that building. These educational reasons, coupled with the noneducational ones cited in the preceding example, caused a sizable number of junior high school educators to lean toward the sixth- through eighth-grade organization for their schools. The issue became important enough to warrant a full-scale debate at the annual convention of the National Association of Secondary School Principals held in Chicago in 1964.

Thus, while the issue is unsettled in junior high school circles, it appears that grades seven through nine or six through eight are the most popular in fact and in theory at the moment.

Middle School Combinations

While the middle school is a relatively new entry on the educational scene, it seems to be struggling with some of the same problems as the junior high school. In fact, Judith Murphy's book, *Middle Schools,* includes combinations such as five through eight, six through eight, seven to eight, and six through nine.[4]

As proponents of the middle school point out, however, the important difference is the approach or objectives of the middle school. The chief points offered in its favor include:

1. It facilitates the introduction in grades 5–6 of some specialization and team teaching in staff patterns.
2. Children in grades 6–8 are probably more alike than children in grades 7–9.
3. It provides opportunities for gradual change from the self-contained classroom to complete departmentalization.

[4] Judith Murphy, *Middle Schools* (New York: Educational Facilities Laboratories, Inc., 1965), pp. 5–6.

4. It facilitates extending guidance services into the elementary grades.
5. It helps slow down the "growing up" process from K–8 because the top group is removed from each level.
6. Placing the ninth grade in high school makes it less expensive and facilitates solving problems such as record keeping and guidance.[5]
7. A transition takes place in the intellectual processes of the child at about the sixth grade level in which he is able to develop greater depth of understanding in his subjects. This is an important need and differs quite markedly from the concrete experiences to which he has been exposed in his elementary years.
8. The onset of puberty takes place during this span of years.[6]

This list of reasons for the establishment of the middle school, while not exhaustive, covers most of the objectives normally attributed to it. It is hoped that educationally sound reasons such as these would be the determining factors in a decision to establish such a school.

Another important factor in the rise of the middle school is not an educational consideration but rather a social problem of our time. The issue is pinpointed by Murphy:

> It appears now that what may foster the middle school as part of a new 4-4-4 pattern will be not so much the exemplary effect of pioneering schools. The value of the new pattern may be in helping to solve problems that are primarily social, or economic, or adminis-trative rather than purely educational. Big cities across the land trying to cope with the pressures of de facto segregation, decrepit slum schools, Negro boycotts, intransigent white groups, and deficient budgets see more than a glimmer of hope in the 4-4-4 or 5-3-4 system.

> • • •

> The issue between integrationists and their foes has been joined in the neighborhood-school controversy. With racial imbalance most severe in the six-year elementary schools, one hopeful compromise is a reorganization that would keep the neighborhood pattern for the youngest children but limit it at four or five grades. Children could then move out to middle schools serving a larger, and poten-tially more racially balanced, area. Then, at the end of eighth grade, they would move on to the high schools, which are charac-teristically the best integrated element of any school system.[7]

Another factor that has come into play in some communities is a strictly economic one. School systems with overcrowded elementary and high

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[5] Items 1–6 are taken from Pearl Brod, "The Middle School: Trend Toward Its Adoption," *The Clearing House,* XL (February, 1966), 331–33.
[6] Items 7 and 8 are taken from Constant A. Madon, "The Middle School: Its Philosophy and Purpose," *The Clearing House,* XL (February, 1966), 329–30.
[7] Murphy, *op. cit.,* pp. 6–7.

schools have found relief at both levels by building a middle school which takes two grades from each.

A consideration of all these factors, the educationally sound ones and the practical considerations with which administrators must unfortunately live from day to day, seems to point to a middle school of grades five through eight or six through eight. This grade span would appear to provide a student body with as many similarities as students of this age span can have, and to allow for the exploitation of the practical aspects as well.

A look at the objectives listed for the middle school and those of the junior high school might cause one to ask, "What's the difference? They are both trying to do the same thing." The fact that this is quite true is illustrated by two references. After a study of several years, the National Association of Secondary School Principals came up with a position statement on the junior high school. They found the aims to be common enough to the two schools to publish their final report under the title, *Guidelines for Junior High and Middle School Education*.[8]

A second illustration of the close identification of these two schools is in Murphy's *Middle Schools*,[9] in which several of the schools discussed are junior high schools.

The factor that seems to be foremost in the minds of those who are strongly supportive of the middle school is voiced by Principal W. J. Blakley of the Pleasant Hills, Pennsylvania, Middle School. He says, "...while the theory of the junior high school is excellent, in practice it has resulted in junior high schools becoming miniature senior high schools."[10] Others have voiced this same concern and have looked to the middle school as a way of getting away from marching bands, interscholastic football, elaborate graduation ceremonies, and social activities patterned after the senior high school.

It is hoped that the middle school will be able to hold to these principles. It is worth noting, however, that there are many junior high schools which do not have these activities and that on the other hand, some kindergarten to eighth-grade elementary schools have well-drilled marching bands. The insistence of parents on little league baseball points to the fact that with sufficient parental pressure, interscholastic sports can be fostered at even younger ages. Some junior high schools have graduation exercises and "formal" dances which the principals do not want, but which parental groups have pressured the administration into having. The word of caution here is that it may not be the type of school, but rather the ability of the administrator to withstand outside pressure, which will ultimately determine whether the goals of the middle school are met.

Taking all factors into consideration, it seems most likely that the objec-

[8] Gordon F. Vars, ed., *Guidelines for Junior High and Middle School Education* (Washington, D. C.: National Association of Secondary School Principals, 1966).
[9] Murphy, *loc. cit.*
[10] *Ibid.*, p. 47.

tives of the middle school will best be met if it includes grades five through eight or six through eight. The four-year span beginning with grade five provides the opportunity for it to contain those features that make it a truly different institution from the junior high school.

GENERAL PATTERNS OF INTERNAL ORGANIZATION

Various organizational patterns may be incorporated in a school system. The type selected will depend upon a number of factors. Whether the system is a strongly authoritarian one with most of the decision-making power vested in the central office or a more decentralized one with large numbers of staff involved in policy formulation and execution will be of utmost significance to the outcomes and to staff morale.

Line and Staff Organization

The military concept of line and staff is a popular one in organizations of all types. Business employs this form extensively. Many school systems also are patterned after it. The basic elements of this pattern are the line officers, who fit into a "chain of command" and have authority appropriate to their position in this chain, and the staff officers who operate as service people with little or no authority. Gregg gives a clear description of the most highly structured form of this type of organization.

> *The line and staff organization has placed strong emphasis on the delegation of authority and responsibility. Often, especially in larger school systems, this has resulted in an elaborate pyramidal structure of an impersonal, rigid character. Strict chains of command and a multiplicity of control devices has been emphasized. Frequently the so-called staff officers actually functioned as line officers with responsibility to a small aspect of the total educational program. As a result teachers were responsible to a number of different line officers, and the principal's responsibility for his school was limited. Little encouragement was given to cooperative group activity, communication was formal and primarily downward, and control was mainly accomplished through inspection by administrative supervisors.[11]*

As indicated by Gregg, the line extends from the board of education through the central office into the school, then down to the teacher in the classroom. This pattern of organization is illustrated in Figure 17–1.

This chart does not include all of the possible line and staff functionaries of a school system. In large systems, it could be considerably more complex and include such groups as an administrative cabinet made up of representa-

[11] Russell T. Gregg, "The Administrative Process," in *Administrative Behavior in Education*, eds. Roald F. Campbell and Russell T. Gregg (New York: Harper & Row, Publishers, Incorporated, 1957), p. 291.
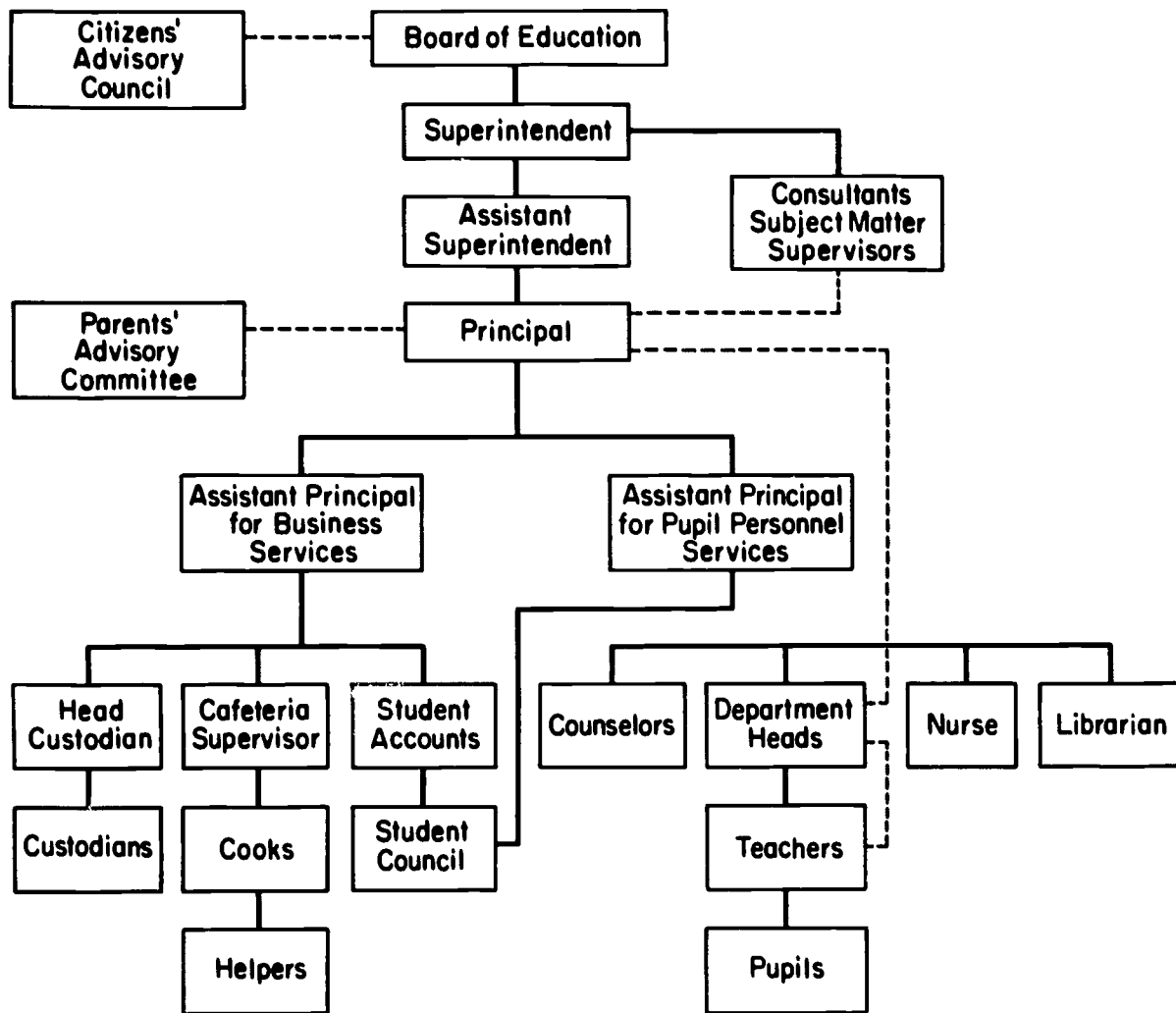
Fig. 17–1. Line and staff organization

tives of all the administrative groups in the system. The function of such a group would be to advise the superintendent.

Some such charts would start with "The People" above the board of education. While it is true that the board serves the people of the community and is elected by them, in the day-to-day operation of the schools, it does not answer directly to the people. They delegate the authority to the board to operate the schools.

In small school systems, this chart will be much less complex. The number of line and staff personnel is considerably smaller and the route from the teacher to the principal and then to the superintendent is much more direct.

Several items about a line and staff organization are made clearer by Figure 17–1. The solid lines represent a line function; the dotted lines indicate a staff relationship. A look at the chart shows that each line person has a position in the hierarchy determined by his distance from the top of the chart, the number of functionaries below him, and the extent of his responsibility and authority.

The chart also shows the relationship of staff personnel such as con-

sultants and supervisors. They are directly responsible to the superintendent (the solid line), and serve the teachers in the school through the principal (indicated by the dotted line).

Certain groups may have direct line responsibility to more than one individual. The student council serves to illustrate this arrangement. It is responsible to the assistant principal for pupil personnel services for most of its activities, but it is responsible to the assistant principal for business services for the proper custodianship of its funds.

While the line and staff form of organization is a relatively easy one to chart, making it possible to more readily affix blame for problems, it has some limitations, especially when strictly adhered to as a pattern for schools today. A highly authoritarian scheme of operations has a tendency to kill initiative; it fails to tap the creative abilities of those far down the chart, particularly teachers. This is a severe waste of talent and ability, especially when we consider that today's teachers are highly competent, intelligent, creative individuals who could offer ideas of value to the operation of the schools. Coupled with this factor is the fact that teachers today are increasingly demanding a stronger voice in policy determination.

This is not to say that the line and staff form of organization has no place in the schools today. It is, however, set up normally with a much more direct path to the top and with less elaborate patterns of line officers. Thus, while maintaining some of its elements, the modern school organization utilizes the talents of its staff, wherever they may be in the organization.

Decentralized or Flat Organization Patterns

The decentralized or flat organizational structure is a much more realistic and effective form for the school of today. It offers the opportunity to capitalize on creative ideas, regardless of where they may originate. It also provides a pattern of flexibility in operation that is imperative in large school systems with the problems they currently face. Stimbert and Dykes express this viewpoint:

> The magnitude of the administrative task demands that decision-making be as near the point of action as possible and that the number of decisions which must flow upward in the organization be limited. It has been repeatedly shown that highly centralized administration in large organizations, taking on itself an intolerable measure of responsibility, invites collapse in periods of stress.
>
> • • •
>
> Increased complexity has brought increased need for specialists of many kinds. Effective utilization of specialists requires that they either have decision-making power or figure importantly in the

decision-making process, thus creating pressure for further decentralization of administration.[12]

Gregg states that "in flat organizations the teachers and the superintendent are in relatively close relationship. Staff officers advise the superintendent and serve as consultants to principals and teachers when the latter need their help. They are not in an authoritative line relationship with principals or teachers."[13]

TALL ORGANIZATION

| People |
| Board of Education |
| Chief School Administrator |
| Associates or Assistants to the Chief School Administrator |
| Directors or Supervisors of Special Subjects |
| Staff Specialists Working with Directors or Supervisors |
| Building Principals |
| Assistant Principals |
| Department Heads |
| Teachers |
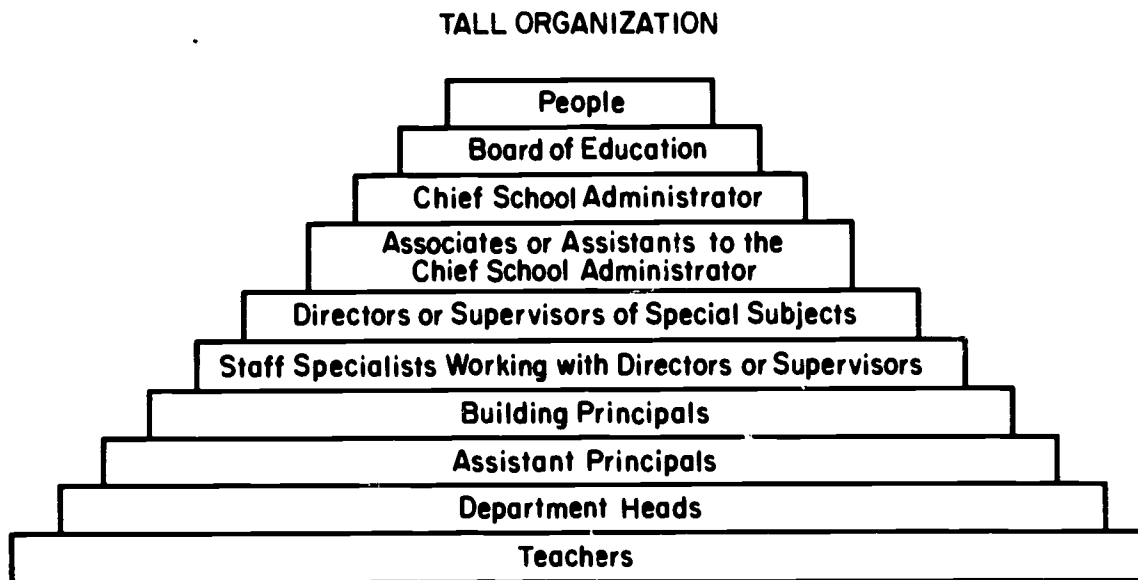
Fig. 17–2. Tall organization

The centralized or pyramidal organizational structure is contrasted to the decentralized or flat organizational structure in Figures 17–2 and 17–3.[14]

As has been indicated in this discussion, the size of the school greatly influences the type of organizational structure. As a rule, the smaller the school, the more informal the organization. In the very small schools the principal and teachers work directly together on many of the school problems. As the size increases, the complexity of organization also increases, especially as other persons of authority are added to the staff. It is because of this fact that efforts are constantly being made to reduce this problem. This is a part of the rationale behind such organizational patterns as the "school-within-a-school."

The organization of an intermediate school should thus be developed so that it is best suited to the community it serves, provides for efficiency of operation without stifling initiative, and assures that all members of the

[12] E. C. Stimbert and Archie R. Dykes, "Decentralization of Administration," *Phi Delta Kappan*, XLVI (December, 1964), 174.

[13] Gregg., *op. cit.*, p. 292.

[14] Daniel Griffiths, David L. Clark, D. Richard Wynn, and Laurence Iannaccone, *Organizing Schools for Effective Education* (Danville, Ill.: The Interstate Printers and Publishers, Inc., 1962), pp. 21–22.

FLAT ORGANIZATION

Fig. 17–3. Flat organization

professional staff have an opportunity to contribute toward the attainment of the purposes of the school. This means enough structure of the line and staff pattern to provide leadership and responsibility, but a strongly decentralized process to assure making the most of all those involved in the educational process.
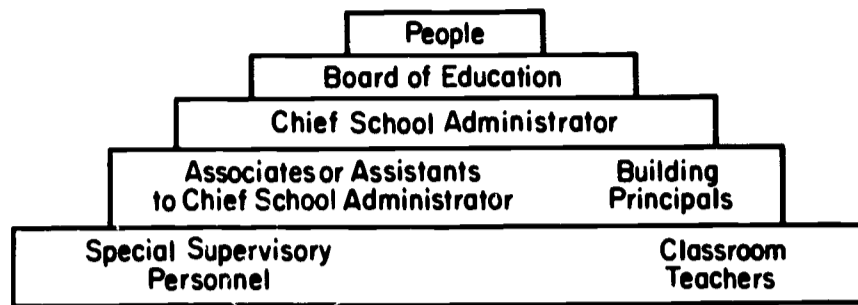
Self-Contained Classrooms and Departmentalization

From the discussion earlier in this chapter of the points offered in favor of the middle school, it was noted that the school combined the self-contained classroom with some departmentalization. Earlier discussions of the nature of the preadolescent showed the need for the youngster of this age to have the security of someone in the school who knows him well. The self-contained classroom provides such a relationship.

There are, however, some disadvantages to the self-contained classroom at the fifth- and sixth-grade level. By the time this point is reached in the curricular ladder, each subject that has been pursued for several years has begun to reach some degree of specialization. This is especially true, for example, in areas such as mathematics and science. It becomes increasingly difficult for the teacher to reach the degree of specialization needed in all of these areas, especially since some students will have become deeply interested in a subject and will have pursued it independently in some depth. It is quite possible for these students to reach beyond the teacher's knowledge in a particular interest.

Coupled with this problem are the specialized areas to which these students should be exposed. Physical education, industrial arts, home economics, music, and art are examples. Thus, while the concept of the single classroom and one teacher offers much to feelings of security on the part of the preadolescent, there are some areas that are handled more adequately by departmentalization.

The middle school concept, thus formulated, is designed to meet both needs. The fifth- and sixth-grade pupil spends approximately half of his

time in a self-contained classroom for subjects such as language arts, social studies, and reading. The remainder of his time is scheduled for other subjects on a departmentalized basis. This seems to offer the possibility of gleaning the best from both organizational plans. It should perhaps be included in any intermediate school that includes either the fifth or sixth grades.

As the student moves through the seventh and eighth grades, more departmentalization is incorporated into his schedule each of these two years. Thus, by the time he reaches the ninth grade he is ready for a fully departmentalized program. In this way an intermediate school meets one of its primary objectives, facilitating the transition from elementary to senior high school.

Departmental and Area Plans

Some intermediate schools follow the organizational patterns of the senior high school, with each subject matter area becoming a department. Usually a chairman is selected to carry the administrative responsibilities of the department. He may be selected by the principal or elected by the members of the department. The most satisfactory arrangement is selection by the principal. In this way, the person chosen is more likely to be one who has some administrative ability and the interest to carry out the work of the department. When department chairmen are elected, extraneous factors of much less importance may be decisive in the selection.

The responsibilities delegated to departmental chairman will vary depending upon the size of the department and the particular school situation. If a principal has sufficient help in terms of assistant principals or unit chairmen, the responsibilities of departmental chairmen may be less extensive. If the principal has a fairly large school with insufficient administrative help, the departmental chairmen may take on functions normally handled by the principal or his assistants.

Some of the functions often assigned the departmental chairmen include the following:

1. Selecting textbooks, supplementary materials, audiovisual materials, supplies, and equipment for the department. (The department usually participates in this function with the chairman following up on the administrative detail.)

2. Requisitioning supplies and other materials for the department.

3. Supervising teachers in the department, including supervising the orientation of new teachers.

4. Organizing in-service programs for all members of the department to keep abreast of the latest developments in the field.

5. Assisting the principal in the screening, interviewing, and selection of new teachers for the department.

6. Furnishing leadership for curricular innovations in the department, and also for the incorporation of new teaching techniques and devices.
7. Serving as a liaison between the members of the department and the principal in all matters relating to the operation of the department.

In large schools where departmental chairmen engage in all of these functions, they will generally teach a reduced load. Certainly if they are to do much in the way of teacher supervision, they will need to have more than one unscheduled period.

Some educators feel that such an arrangement tends to isolate departments and causes teachers to become too subject-matter-oriented. The end result is that teachers begin to think only in terms of mathematics, or English, or music, and not in terms of a suitable curriculum involving all of the experiences needed by the prepubescent or early adolescent. It has even been argued that teachers may go a step farther and think only in terms of one subject matter area and not of the pupil and his welfare at all.

One plan offered to combat this problem of departmentalization is that of organizing the faculty into areas that each include several subject matter departments. Under such a plan, the mathematics and science departments might be grouped with one area chairman. The same might be true of the language arts, social studies, and reading teachers. Industrial arts, home economics, music, art, and drama might form the fine and practical arts area. More recently some schools are combining the music and drama departments as the performing arts area.

The departments that are grouped together will depend upon the situation in the individual school. The size of the school has an important bearing on this division. In large schools, the number of teachers of language arts, social studies, and reading may be so large that a further breakdown is needed in order to have an area group small enough to accomplish work when it meets. The alternative for such a large area is to do much of the work through committees.

The duties of area chairmen are roughly the same as those of departmental chairmen. In areas comprising several departments, an area committee is almost essential for the area chairman to properly perform these tasks. This committee is usually made up of a member from each department represented, whose job is to facilitate the work of the area chairman within his particular department. This becomes an important function, especially in those instances where the area chairman has textbook selection, teacher supervision, and selection of new staff as part of his responsibility.

It should be noted that whether the organizational pattern is by department or area, the use of committees is quite usual. This is especially true, for example, in selecting textbooks; coordinating the use of films, filmstrips,

and other frequently used audiovisual materials; and selecting equipment. For each of these functions, a committee operates to perform the service for the entire department or area. These committees may all operate under the chairmanship of the departmental or area chairman, or they may each have their own chairman, depending on the situation and the desires of those involved. The important factor is to involve all the personnel of a department in some phase of the department's. The stimulation, growth, and communication involved are wholesome for all concerned, and an opportunity is provided to make use of everyone's abilities and talents for the overall good of the school program.

SPECIAL ORGANIZATION ARRANGEMENTS

Within the framework of the school, special arrangements are often made to meet the individual educational needs of students. One of the advantages of an intermediate school that includes grades five and/or six is that is usually provides a school of sufficient enrollment to allow special arrangements that are impossible in smaller elementary schools.

Grouping Techniques

Intermediate schools allow the employment of various grouping techniques. It is not the purpose here to enter the well-worn debate of whether students should be grouped or not. The professional literature is satiated with writings on the subject, to the extent that one can find both authorities and research to back up whatever point of view one wishes to embrace.

Several factors should be considered, however, when exploring the possibility of grouping in a school. Both experience and research would tend to verify these considerations:

1. When grouping, more than one basis should be used for the selection of students. Most schools use ability and achievement tests, plus marks and teacher recommendations.
2. Pupils grouped for one subject should be regrouped for other subjects, using appropriate marks, scores, and recommendations.
3. Flexible arrangements should exist for moving students from one group to another immediately when it is discovered that a student has been incorrectly placed.
4. Students should be heterogeneously grouped for at least a part of the program so that they learn to work with pupils of all abilities.
5. If the curriculum pursued, the techniques used, and the depth explored are not truly different, depending upon the particular group, then it is pointless to group at all, and you can expect little or no success for your efforts.

The final item is the most important of the list. To go through all of the work of checking test scores, securing and weighing teacher recommendations, scheduling, planning, and solving the other myriad of problems involved, and then to teach each class the same way, using the same material, is the height of wasting time. Assigning twenty problems instead of ten to the superior group is not an improvement. The curriculum and approach must be different if the results are to be different.

It should further be noted that the teacher who wants the "top group" because they are easy to teach is laboring under an exceedingly false illusion. To truly teach the "top group" may well be the most difficult task a teacher can encounter. To keep a class of thirty alert, able, creative minds challenged and channeled to productive activity is a task to stretch even the most capable teacher.

Track Systems

In an effort to meet the individual needs of students, some schools have elaborated upon the previously mentioned grouping schemes and have set up three, four, or five more-formalized groupings, or tracks, within the curriculum. These vary from place to place to fit the desires of the community served. In some instances a student is on the same track for all subjects.

Usually a track is designated in terms of either the ability of the student or his ability incorporated with his later educational aspirations. Thus, the tracks might be called "gifted," "superior," "average," and "remedial" or "slow." They might also be designated as "honors," "college prep," "general," and "basic." Some schools with a flair for color might even go to railroad terminology and designate their tracks as "express," "limited," "mainliner," and "special." Sometimes the tracks are simply numbered.

Whatever the terminology, the track system should be set up with the stipulations offered for grouping in general applying to the selection of a particular track. Enough flexibility should also be assured in the system to allow the changing of tracks when warranted. We must be sure that we do not determine a student's educational future, with no chance for change, when he is at or approaching the age of early adolescence. Our instruments of measurement and our ability to judge are not accurate enough to take such a chance with a pupil's future.

Nongraded Schools

The idea of nongradedness has become fairly widespread in elementary schools in recent years. A few junior and senior high schools have also

principal or unit chairman. It also has its own guidance counselor and a staff of teachers, the number depending upon the student enrollment. The organization would be something like that shown in Figure 17–4.
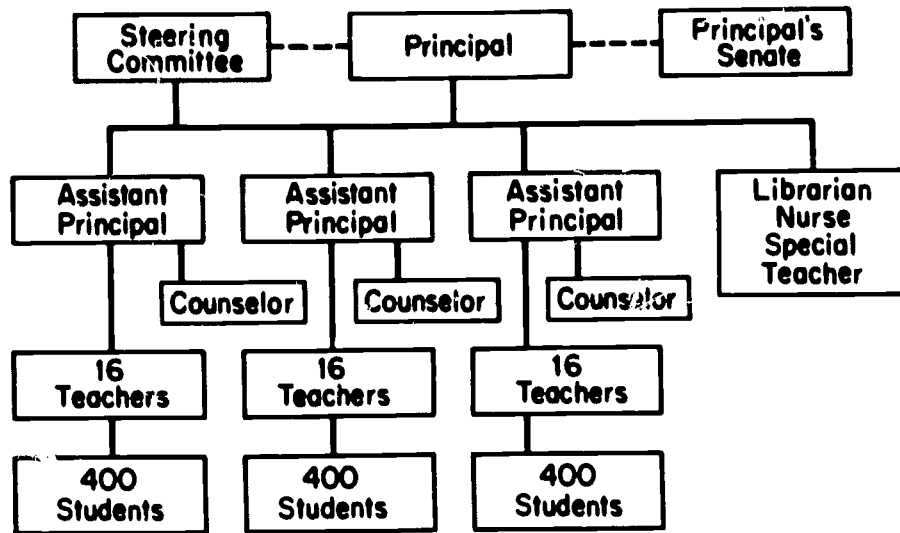
Fig. 17–4. Organization of a house plan

The principal's senate is composed of himself and his assistant principals. It deals primarily with matters of administration.

The steering committee is made up of the principal's senate plus the counselors and teacher representatives from each "house." If the house is organized with some students from each grade, then a teacher from each grade is included in the representation.

In some schools the unit or house is organized with each grade constituting a house. Thus, if the school were a junior high school with grades six through eight, one house would contain the sixth-grade students and teachers, one the seventh grade, and one the eighth grade.

Another plan is to organize each unit so that some students from each grade are included. Thus, if the school in Figure 17–4 were a fifth- through eighth-grade middle school, each unit would include: 100 fifth-, 100 sixth-, 100 seventh-, and 100 eighth-grade students. The teachers would also be divided among the units accordingly.

Some of the newer plants designed for such an organizational plan actually have separate wings for each unit (Figure 17–5). A common area centrally located includes the principal's office, the auditorium, the health unit, the cafeteria, the central store and supply room, the audiovisual center, the library, and the physical education, industrial arts, music, home economics, and art facilities.

An interesting organizational plan for the school-within-a-school is described by Alexander and Williams. They view the individual student as

moved toward this plan. A number of educators have voiced the opinion that the nongraded scheme may actually be most appropriate for grades six through eight or five through nine, the grades often included in intermediate schools.

The basic idea of the nongraded school is to get away from the straitjacket of the yearly promotion. For example, the school would be without a sixth or seventh grade, as such. Instead, the student would spend the necessary time in the school to accomplish certain basic educational goals; beyond this he would receive enrichment commensurate with his ability. Furthermore, the time he spent in the school would be regulated by the speed with which he met these basic goals.

Thus, a middle school taking students from the elementary school at the end of the fourth grade and feeding into a four-year high school would keep students for varying numbers of years. Most students would spend four years in the middle school. Some might move on in only three years, and others might stay for five.

Under such a plan it is quite possible for a student to enter high school with the basic goals met in all areas, although due to a special talent or ability, he enters an advanced class in one area. For example, he might enroll in his freshman year in high school in all ninth-grade classes except for art, where he might have already covered the usual ninth-grade course. In this case he would enroll in tenth-grade art. The same could be equally true of mathematics, or any other area.

The major advantage of the nongraded school is that it breaks the lockstep of the semester-by-semester course with students of all abilities trying to cover the basic content in the same amount of time. The nongraded school allows all to cover a set basic standard, but the time required to do so will vary with the ability of the individual. This concept will probably become much more widely employed in the next few years.

House Plans or Schools-Within-a-School

One of the most popular techniques of recent years aimed at combating "bigness" in a school has been that of the "house plan" or the "school-within-a-school." This idea has been utilized at all levels of the public school from the primary grades through the high school. It has particular application for intermediate schools.

At the intermediate school level, the usual plan is to break a school of 800 or more down into smaller units within the school. The most common plan is to form "houses" or "units" of from 250 to 400 students. Thus, a school of 1,200 pupils might be organized into three schools of 400 each or four schools of 300 each.

Each school has its own head administrator, usually called an assistant

Fig. 17-5. A house-plan design

the basic instructional unit of the middle school. He would be scheduled to the following:

1. A homeroom unit: The homeroom would be made up of students in the same year of school but heterogeneously grouped. The home-room teacher would be a teacher–counselor who works out the program for each pupil in his homeroom. The length of time spent in homeroom would vary with the individual. Typically, the time would decrease with the level in school.

2. The wing unit: (Composed of four homeroom units and teachers.) The function of the wing unit is to allow cooperative planning and instruction in the General Studies area. The teachers in the wing unit function as a curriculum planning committee and as a teaching team.

3. The vertical unit: (A school-within-a-school.) All four years of the school would be represented in each vertical unit. Provision would be made for vertical acceleration through any element of the curriculum.

4. Special learning center: (Serve specialized interests and remedial and exploratory needs of the student.) Students are scheduled individually for short- and long-term instruction in the personal development and learning skills areas of the curriculum. Included are the library, reading laboratory, foreign language laboratory, arts and hobby center, music room, and physical education and recreation center.[15]

The school-within-a-school seems to offer a workable plan for providing smallness, and the intimacy that comes with it, while the overall school

[15] William M. Alexander and Emmett L. Williams, "Schools for the Middle School Years," *Educational Leadership*, 23 (December, 1965), 222–23. Reprinted with permission of the Association for Supervision and Curriculum Development and the authors. Copyright © 1965 by the Association for Supervision and Curriculum Development.

population may be quite large. Since close contact with a few teachers and the security it brings are goals sought by the middle school, this plan offers promise.

The administrative organization for the school-within-a-school is discussed in the following chapter.

Team Teaching

The intermediate school offers the opportunity for a number of innovations such as team teaching. Team teaching may be approached in two ways. In some instances the "team" is composed of teachers from the same subject matter area. Thus, a team of language arts teachers may use the team approach to the teaching of this subject.

Such an arrangement offers the opportunity to draw upon the various specialties and strengths of the members of the team by making each responsible for the large-group presentations in his specialty. Using small groups for a portion of the time allows these teachers to work closely with a few students studying the topic.

A second approach is to combine members from two or more subject areas into a team. The purpose of this arrangement is to integrate or fuse two or more areas of the curriculum and to utilize the advantages of a team in doing so. Block-of-time subjects or the core curriculum lend themselves readily to such a team approach.

Whether the team is composed of teachers from one subject area or more than one, the composition can vary according to the teaching experience of its members. It is quite possible to utilize the abilities of three or four teachers with extensive experience to make up the team.

Another approach is to use one master teacher and two or three beginning or less experienced teachers. This has the advantage of allowing the less experienced teacher to work closely with a master teacher, hopefully gaining many proven techniques in the art of teaching. It goes without saying, however, that this is also a two-way street. It is hoped that the master teacher is open to new ideas, yet unproven, and is willing to try novel approaches. If this is not true, the group is not a team but rather a master and his servants, which is not conducive to obtaining the best from all concerned.

In addition to the teaching members of the team, one or more aides are often included. These may be general aides or clerical aides. General aides perform such tasks as grading papers and tests, handling audiovisual materials, and performing routine supervision. Clerical aides handle such tasks as typing tests and materials and recording attendance and grades.

A few schools have also included student teachers or interns as members of the team. The obvious advantage to the prospective teacher is his opportunity to work with more than one teacher in a variety of situations.

This program also permits good feedback to the school of some of the current ideas being considered at the college level.

Whatever the plan used in team teaching, the key to its success lies in the human relations abilities of the members. Where team teaching has met with severe problems, the reason given most often is the inability of the members to work in close harmony to make the team function smoothly. This places a burden on the principal in his selection of those who will make up the team. The team members must be compatible; the organizational scheme for the team's operation, including the delegation of the various responsibilities and authorities, must be understood and accepted; and the team members must be sold on the idea of the team approach to teaching. Otherwise, team teaching will not work.

One final comment is in order. Some of the early trials at team teaching in intermediate schools failed when a successful high school operation was transferred *in toto* to an intermediate school. Once again it became obvious that intermediate school boys and girls were not high school youth. A number of schools that had met such failure applied what they knew about how the early adolescent learns to what they knew about team teaching and met much greater success.

ORGANIZATION AND ADMINISTRATION

In the next chapter, various aspects of administration and the administrative function of staff members of the intermediate school will be discussed. The nature and the purpose of organization were discussed earlier in this chapter. At this point it is appropriate to explore the administrative aspects of organization and their interrelationships.

The study of administration, as applied to the schools, is relatively new. The first study in depth of the administrative process was based upon the works of Fayol[16] and of Sears,[17] who was for a number of years the leading authority in this field.

In recent years research has begun to be a part of the study of educational administration, adding considerably to the knowledge of the nature of the administrative process. Griffiths[18] provides an example of this approach.

A number of patterns have been suggested for the administrative process. All of these have common elements, although they may differ somewhat as to their grouping and the importance accorded to each. Jenson and

[16] Henri Fayol, "The Administrative Theory in the State," in *Papers on the Science of Administration* (New York: Institute of Public Administration, Columbia University, 1937).

[17] Jessie B. Sears, *The Nature of the Administrative Process* (New York: McGraw-Hill Book Company, 1950).

[18] Daniel E. Griffiths, *Administrative Theory* (New York: Appleton-Century-Crofts, 1959).

Clark have a grouping that is similar to those of other authorities in this field. They state: "Administration is a process involving a system of inter-woven elements including (1) planning, (2) organization, (3) management, and (4) appraisal and control."[19]

From this it is apparent that organization is one of several elements of the administrative process. It is a part of the broad function of administration. It thus follows that as a part of the process, organization is not an end, but a means for achieving the ends of the administrative process, which in turn are the ends of the institution it serves.

Some of the important elements of the administrative task relative to organization and structure are identified by Jenson and Clark.[20] These are, "concepts of formal and informal organization, authority patterns, controlling boards, organization in administration, channels of communication, and participation in administration." The first of these was discussed briefly in the earlier section on organization. The other elements will be expanded upon in the following chapter.

The magnitude of the administrative task and the problems associated with the organizational phase are stated by Jenson and Clark as follows:

> *Conceptually, the issues and concerns in administrative organization arise from the difficulties of trying to integrate individual and organizational goals. Attempts to achieve the solutions to these difficulties have unearthed a myriad of practical operational questions around issues such as authority patterns, delegation of responsibilities, span of control, tall or flat organizational patterns, central and decentralized control, the nearness of control to the operational areas, unit and multiple controls, institutional and individual purposes in organization, and the unique nature of the educational enterprise in these connections.*[21]

Thus, the organizational aspect of the schools is aimed at providing an orderly and efficient means of achieving the goals of the schools. It is a part of the broader administrative process that has as its purpose facilitating the achievement of the educational goals of the school. The schools include individuals—the students, the teachers, the other school personnel, the parents, and the other citizens of the community. Attainment of the school's goals requires a number of administrative techniques by the principal working with the other individuals mentioned above. The success of the organization is directly related to the administrator's ability to work harmoniously

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[19] Theodore J. Jenson and David L. Clark, *Educational Administration* (New York: The Center for Applied Research In Education, Inc., 1964), p. 44. Copyright © 1964 by The Center for Applied Research In Education, Inc.

[20] *Ibid.*, p. 48.

[21] *Ibid.*, p. 50.

with all of these individuals and groups. Some of the techniques he may use are explored in the following chapter.

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18

Administrative Services

This chapter is devoted to a discussion of the principal and his role in the intermediate school. The administrative team and other staff members who perform some administrative functions will also be considered. The leadership role of the principal and the importance of his ability to establish a climate in the school that will bring out the best in all of the members of the staff will be emphasized.

The latter portion of the chapter will be devoted to some of the specific administrative tasks of the school for which the principal is responsible. These will include such items as the budget, securing of supplies and materials, supervision of the school plant, secretarial services, research activities, involvement in federal programs, and summer programs.

ADMINISTRATION IN INTERMEDIATE SCHOOLS

Specific Administrative Needs of Intermediate Schools

The administrative function of the principal of an intermediate school has many similarities to that of other administrators in the school system. There are some important differences, however. The most obvious, of course, is that he is responsible for only one segment of the educational ladder, and for one school from among the several that form the particular school system. Second, while he has an interest in securing the revenue for supporting the educational program, this is primarily the responsibility of the superintendent and the board of education.

The principal, furthermore, is much more closely associated with the

staff, the curriculum, and the students of a particular school. He therefore is quite intimately associated with the details that are involved in one unit of a larger educational system.

Because the intermediate school is larger than the elementary schools in the system it serves, its administrative needs are correspondingly greater. Departmentalizing a portion of the program develops other administrative needs. The additional services offered by the school in the areas of guidance, resource centers, student activities, and similar student personnel services also carry increased administrative demands.

The Administrative Team

The administrative team is composed of those staff members who have administrative duties as their primary responsibility. Since departmental or area chairmen normally devote the majority of their time to teaching, they are not considered a part of the administrative team.

Usually, the administrative team is made up of the principal and his assistant principals. In the case of the school-within-a-school the latter are often called unit chairmen or unit principals. By any of these names, they are primarily administrators in function and are a part of the administrative team.

The principal is the chief executive officer of the school. He is responsible to the superintendent for the operation of the school and for fulfilling its objectives as a unit of the educational system. In some schools, he is the only administrator. In larger schools, he will have one or more assistants. Various recommendations have been made about the size a school should be before an assistant principal is added. The Council on Junior High School Administration recommends that "there be one full-time administrator for each fifteen to twenty professional staff members, exclusive of the principal."[1] The Council for Administrative Leadership recommends that a junior high school of 700 to 1,000 pupils should have a principal and two assistant principals.[2]

In the remainder of this discussion we will generally assume that in those instances where a school is too small for the assistants named, their duties will be assumed by the principal.

There are two approaches to the division of responsibility among the members of the administrative team. One approach is to write a job description of each position and assign the tasks accordingly. When such an approach is used, the assistant principals are quite often designated as (1)

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[1] Council on Junior High School Administration, "Ten Tenets of Junior High School Administration," *The Clearing House*, XXXVIII (February, 1964), 331.

[2] *The Administrative Organization of the Modern Junior High School* (Albany, N. Y.: The Council for Administrative Leadership, New York State Teachers Association, 1959), p. 26.

assistant principal for pupil personnel services and (2) assistant principal for business services.

Using such a plan, the assistant principal for pupil personnel services will be responsible for the guidance program, student activities, discipline, health department, and any other functions relating to student welfare. He will serve as a supervisor in each of these areas and the personnel involved in these services will report directly to him. Supervision of the guidance department includes facilitating its program within the school and working with community agencies. In the health and safety area he will supervise the school nurse and be responsible for all safety measures within the building and on the grounds.

The assistant principal for business services assumes the responsibility for supervision of (1) the school plant and grounds, including the custodial staff; (2) the cafeteria, including its staff; (3) requisition of supplies, materials, and equipment; (4) maintenance of equipment; (5) bus services; (6) school accounts; and (7) student activities funds. He is in charge of all accounts and funds in the school. All business activities are channeled through him. This includes ordering supplies, materials, and equipment, and assuring their procurement and distribution. In the case of equipment, he is responsible for placing the district's inventory number on the item and for being able to locate it when inventories are checked. He further checks on equipment in need of repair or replacement.

The cafeteria is another area of responsibility. The assistant principal for business services works closely with its personnel to assure the efficient operation of a lunch program that will invite good participation by the students. A weekly menu, heavy with casserole dishes, will not be supported by youngsters of intermediate school age. As for bus services, he is responsible for setting up bus routes and schedules and supervising this service.

The principal furnishes the overall leadership for the school. He is directly responsible for the professional staff. This includes: (1) screening applicants, (2) recommending to the superintendent those he desires to be hired, (3) orientation of new staff members, (4) organizing the staff for the most effective utilization of the capabilities of its members, (5) in-service education programs and other avenues for professional growth, (6) evaluation, (7) recommendations for tenure or dismissal, and (8) staff welfare.

A second major area of responsibility for the principal is the curriculum. He, of course, will rely heavily upon department chairmen for assistance in this area. With the current upheaval of most curricular areas, this is a necessity. He makes sure, however, that personnel in each subject matter area are aware of what is going on in their field and have given reasonable consideration to whether or not current curricular ideas should be incorporated in their own curriculum.

The principal is responsible for scheduling. In some schools this may

be shared with counselors or an assistant principal, but most principals tend to reserve this function for themselves. Certainly, if it is delegated, the principal keeps in close contact with the person doing this job, for it is an extremely important function. Many other aspects of administration are closely associated with it; for example, staffing, curriculum, and building utilization.

While automated systems were adapted quite early to the school's business functions, the utilization of this innovation for the school's educational functions, such as scheduling, has not been rapid. Most of the earlier problems were the result of the automated-systems personnel not being acquainted with the school's problems. Since most school personnel did not adequately understand the possibilities and limitations of the machines, it took several years before these devices were put to use in a truly helpful way in such areas as scheduling. Unfortunately, some school systems that had earlier experiences which were quite distasteful to the staff may still have difficulty in convincing them that things have improved.

When a school moves to automated systems of scheduling and other pupil personnel activities, it becomes important that steps be taken to assure that students do not become merely punched cards in the process. The personal element must not be lost.

The principal is also responsible for the public relations program of the school. With the increasing difficulty of passing tax rate increase referendums and bond issues, this aspect takes on increased importance each year. Beyond this practical consideration, however, it simply is good school business to carry on a continuous program of informing the public what is going on in the schools and why. An informed public never concerns itself with some of the time-consuming problems which are brought to the principal of the school that does not bother to keep its citizens so informed.

A final responsibility of the principal is research and innovation. This function has taken on greater emphasis with the recent increase of federal funds for schools. Many of these programs are concerned, at least in part, with research activities. In addition to this, the school has a responsibility to the profession to conduct research programs that will contribute to the general fund of knowledge related to the educational process.

As was indicated earlier, this is the usual distribution of responsibilities among the principal and two assistant principals when the positions are set up on a job-description basis. In some schools, these responsibilities may be shifted slightly when a girls' assistant principal and a boys' assistant principal are designated. Usually, in these cases, the boys' assistant principal performs the duties of the assistant principal for business services, except that he also handles boys' discipline, boys' activities, and boys' welfare. The girls' assistant principal handles these functions for girls, plus the duties described for the assistant principal for pupil personnel services.

Many administrators prefer to distribute the various responsibilities

among members of the administrative team on the basis of special interests or capabilities. They prefer to organize the team according to the strengths of the members rather than on the basis of a job description. If a change of administrative personnel should occur later, the responsibilities would be reviewed and reassigned on the basis of the strengths held by the new member; he would not just assume the duties of his predecessor.

When the school is organized under the school-within-a-school plan, the functions of the assistant principals will usually vary, somewhat, from those described above. Lowe describes the responsibilities as follows. The principal is responsible for the educational leadership for the entire school, with the assistance of the unit chairman in each unit. Each unit chairman is responsible for the administration, supervision, and guidance of the staff, student activities and clubs, attendance, and requisitions at the unit level.[3]

Each unit chairman has schoolwide responsibilities in his own field of competency. These responsibilities might be assigned as follows:

1. Unit Chairman A—Pupil Personnel Services, including the usual guidance and testing services, representing the school at district pupil personnel service group meetings, and serving as a liaison person to the community's social agencies.
2. Unit Chairman B—Instructional Services, including curriculum development and evaluation, and instructional materials and equipment.
3. Unit Chairman C—Administrative Services, including safety, supervision of buildings and grounds, transportation, assist with the master schedule, and serve as principal in his absence.[4]

Another method of division of the functions of the principalship is described by Johnson as external and internal responsibilities. His external responsibilities are related to representing the school. This includes representing the school to the community, the board of education, and the superintendent. Securing adequate funds from the board for the school's operation is one external function.[5]

Regarding the internal functions, Johnson states:

Internally the principal must allocate resources equitably, establish and enforce rules and procedures to keep the school operating efficiently, and demand of his staff whatever performance is necessary to insure that institutional goals are met. He must hire only those people who seem likely to perform satisfactorily, try to retain those who do, and discharge those who prove inadequate. Finally,

[3] Alton D. Lowe, "Three Schools Within a School," *The Bulletin of the National Association of Secondary School Principals,* XLVI (February, 1962), 48–49. Reprinted by permission of the National Association of Secondary School Principals.

[4] *Ibid.,* p. 49.

[5] Mauritz Johnson, Jr., *American Secondary Schools* (New York: Harcourt, Brace & World, Inc., 1965), p. 31.

*he must motivate teachers and other staff personnel to innovate
and go beyond the minimal demands of their assignments to higher
levels of performance.*[6]

Regardless of the division of responsibility within a school, the administrator must work closely in many areas with administrative personnel in the central office. Several of the functions of the assistant principal for business services require that he work with the assistant superintendent for business services, the business manager, the purchasing agent, and the assistant superintendent for buildings and grounds—or their counterparts. By the same token the assistant principal for pupil personnel services will work closely with the director of guidance services, with student activities directors of other schools, and with various social agencies within the community.

Similarly, the principal will be in close association with the assistant superintendent for personnel in screening, securing, retaining, dismissing, and considering the welfare of the staff. He will work with the assistant superintendent for instructional services or the director of curriculum in developing and articulating the curricular program. He will work with the public relations director for an integrated program of school information. While these are not exhaustive, they illustrate the importance of external administration as a part of the administrative process.

Before leaving this section it might be well to consider briefly the importance of assessing one's position, one's strengths and weaknesses, and of organizing one's work accordingly to best perform the position of an administrator. A good discussion of this process is presented by Drucker. He advises:

1. Think through what the really important contributions are which only you can make—and make sure you make them.
2. Know where your time goes and where it should go.
3. Set priorities and abide by priority decisions.
4. Build on strength—especially the strength of people.[7]

If the principal does not follow guidelines such as these, it is quite likely that he will find himself mired in busywork while the more important jobs are not being accomplished.

RELATIONS WITH THE CENTRAL OFFICE

In the preceding section, some of the relationships between administrators in the school and those in the central office were pointed out. Another

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[6] *Ibid.*

[7] Peter F. Drucker, "The Effective Administrator," *The Bulletin of the National Association of Secondary School Principals,* XLVIII (April, 1964), 159–65. Reprinted by permission of the National Association of Secondary School Principals.

central office relationship that was not discussed was that of supervisors, curriculum coordinators, and consultants. While these people serve primarily as consultants, they often carry some administrative responsibility. They do not, however, carry authority in regard to the principal and teachers of a school.

> *The supervisor does have direct responsibility with respect to consultants or others in his particular service department. He works with other central office personnel and with principals in identifying instructional problems and in giving leadership and assistance to teachers and others in their solution. He develops and makes available opportunities for professional growth. He provides information, helps screen new staff members, helps select materials, and serves as a resource person to the board of education and administration.[8]*

The Principal's Role

The relationship of the principal to the central office will depend primarily upon the type of administrative structure of the district, and upon whether the superintendent views his principals as responsible administrators or simply communications agents for the central office. The flat or decentralized form of organization provides the principal with much greater opportunity to work closely with the central office in matters that pertain to his school, and also to function much more effectively within the school.

Morphet, Johns, and Reller discuss the relationship the principal must have to the central office if he is expected to be a real, rather than a nominal leader:

1. The lines of communication between the principal and the superintendent are direct rather than circuitous.
2. There is direct functional communication between the principal and the business office, maintenance department, central services where matters concerned are within limits of established policy or within the budget for that school—otherwise the principal communicates with the superintendent or his designated representative.
3. The principal is recognized by the central office as the executive head of the school he administers. As such, the principal recommends to the superintendent the employment of all of the employees of the school for which he is responsible.
4. No one from the central office has direct control over the employees of a school. The principal has that responsibility.
5. The principal, not the supervisory staff of the central office, is administratively responsible for the educational program of the

[8] *Leadership for Improving Instruction*, ASCD 1960 Yearbook (Washington, D. C.: The Association for Supervision and Curriculum Development, 1960), pp. 115–16.

school he administers. The supervisory staff of the central office are staff officers, not line officers.

6. The principal is responsible for executing board policies at his school center.

7. The board of education does not adopt a policy or educational program unless it has been carefully studied. Such studies involve principals, teachers, lay citizens, and others when appropriate.

8. The relation between the principal and the central office is friendly and cooperative. The principal is a member of a team that has the characteristics of an effective group.[9]

The alternative to this type of relationship is to serve as what Campbell[10] describes as a communications agent. As such, the principal keeps the central office informed of what is going on in the school and passes along information from the central office to the teachers. He functions as a sort of middle management. Such a superintendent is primarily desirous that the principal "just keep things quiet and stable."

Campbell would rather view the role of the principal as one of greater authority and responsibility. He sees this role as one of mediation between and institutional dimension and an individual dimension.

In one instance, you are very firm in indicating the policy of the organization and the need to pursue the organization's policy and goals as avidly as possible; in another instance, you are listening, you are understanding that people differ, you are aware that some people can perform one function exceedingly well but not another. You recognize that teachers are not interchangeable cogs, that indeed one of our problems is to get every person in the position where he can make his greatest contribution, not his least, and that the organization really succeeds when we can take full advantage of the resources of the people we have in the organization.[11]

Thus, the principal should be a part of policy development for the district, especially as it applies to his school. He should have a strong working relationship with the superintendent; this assumes mutual respect and confidence. He should have the initiative and authority to provide real leadership within his school, as long as he operates within his area of responsibility and provided he keeps the superintendent informed of what he is doing. This is especially important when other segments of the system

9 Edgar L. Morphet, Roe L. Johns, and Theodore L. Reller, *Educational Administration: Concepts, Practices, and Issues* (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1959), pp. 285–86. Reprinted by permission of Prentice-Hall, Inc.

10 Roald F. Campbell, "Application of Administrative Concepts to the Elementary Principalship," *National Elementary Principal,* XLIV (April, 1965), p. 24. Copyright 1966 by the Department of Elementary School Principals, National Education Association. All rights reserved.

11 *Ibid.,* p. 26.

will be affected by his actions. In this case good articulation would require that the other segments be brought in on the early planning of such changes.

STAFF RELATIONSHIPS

One of the most important functions of the principal is that of furnishing leadership to the faculty. The extent to which he is able to furnish this leadership will affect the atmosphere of the entire school. He sets the tone by the way he leads and the type of administrative relationship he has with the faculty. If he is autocratic in his actions, seldom seeks the opinions of others, and provides little opportunity for any type of feedback, his teachers will probably act the same way in the classroom. Students will have little voice in planning their activities or classwork and their ideas or opinions will not be valued very highly.

If one of the aims of intermediate schools is to develop understanding of and a feeling for the democratic way of life, students must have some contact with democracy at work. They are more likely to have the opportunity if the whole school works in an atmosphere that demonstrates the democratic idea. This atmosphere starts at the top in the way the principal works with his staff.

Leadership and the Climate for Cooperative Effort

Since the success of the activities of the school and its staff and the general morale level of the faculty are so closely related to the leadership provided by the principal, it is valid to discuss briefly the leadership role. Of course, leadership can, and will, be provided by many members of the faculty. Department chairmen, committee chairmen, team-teaching leaders, assistant principals, and counselors regularly provide leadership for certain phases of the school program. In fact, each teacher will have numerous opportunities to provide leadership for various phases of the school's work, if they are so inclined.

In discussing the leadership role, MacKenzie and Corey state:

> ...there can be no leadership, in respect to the group he is appointed to lead, unless the members of the group recognize him as controlling means they desire to use to identify or achieve their goals. This means that one of the following conditions must obtain: (1) The leader's goals must be those of the group as helping or potentially helping it to achieve its goals; (2) The leader's goals must be sufficiently compatible with those of the group so that the group sees him as helping or potentially helping it to achieve its goals; (3) The group must recognize the leader as helping to avoid

*destruction of a desired status quo or as offering the least threat to
its goal achievement; (4) The goals toward which the leader is
viewed by the group as being able to contribute essential help must
be important enough to offset or outweigh his refusal or inability
to help the group achieve its other goals.*[12]

It becomes important that the principal, as educational leader of the
school, recognize and utilize these factors related to success. As the appointed
leader of the school, he carries status leadership, and thus will be tolerated
sometimes for extended periods, even if he is providing poor leadership,
as long as the goals of the group are not completely thwarted. This method
can hardly be recommended, however. To furnish the leadership necessary
so that the school's goals are reached, the staff feels a personal involvement
in the endeavor, and the best and most creative talents of the staff have been
tapped, the principal needs to be aware of the above guidelines.

This is best achieved through cooperative procedures. As people become
involved in the study of a problem, hear others' ideas of possible approaches
to a solution, and have the opportunity to voice their own ideas, they become
much more interested in helping the group's program to succeed. MacKenzie
and Corey recommend the cooperative method of identifying and mutually
accepting goals and means because:

1. It increases the possibility of satisfying diverse individual needs
   simultaneously.
2. It is in accordance with what is known about human motivation.
3. The potential contributions of the entire staff are most likely to be
   discovered and used.[13]

Thus, the principal must provide the opportunities for cooperative
identification and reaching of goals by the staff. This means being receptive
and alert to ideas that may be dropped in casual conversation among
teachers. He must, furthermore, provide resources and time to explore
promising ideas for improving the work of the school. Long committee
sessions that start at 3:30 P.M. after a hard day of teaching are not likely
to evoke enthusiasm, nor are they usually going to bring out the most
creative ideas from people.

More will be said about communication later, but it should at least be
mentioned here. This is an especially important aspect of administration;
poor communication probably gets more administrators into difficulty than
any other aspect of the position. It is such an important item and it is so
easily overlooked that the administrator must work at keeping the channels

[12] Gordon N. MacKenzie and Stephen M. Corey, *Instructional Leadership* (New
York: Teachers College Press), Copyright 1954 by Teachers College, Columbia Uni-
versity. Reprinted by permission of the publisher.
[13] *Ibid.*, pp. 33–34.

of communication open and a flow of information going in both directions
—to the staff and from the staff.

Faculty Morale

The effective staff that is reaching the goals of the intermediate schools
is one where morale is high. Many lists have been offered which call atten-
tion to some of the factors that promote faculty morale. One quite inclusive
such list was compiled by the members of the Junior High School Workshop
at Colgate University.

1. Freedom of communication for all teachers with principal and
   other parts of school organization
2. Faculty and other types of professional meetings as needed, at
   convenient times, of reasonable length, with definite agenda and
   involving all
3. Clear understanding of procedures for discipline, with follow-up
   reports to originator, including results of all referrals
4. Development of feeling of acceptance of assignments as being fair
   in distribution
5. Involvement of faculty members in developing school program,
   including experimentation
6. Development of feeling of mutual reliance of staff and principal,
   with assurance of fair reception of all requests by either
7. Clear indication of interest of administration in problems of staff
   (a more personal, professional and material interest)
8. Clear understanding of procedures and routines (clerical)
9. Prompt consideration of staff problems
10. Prompt recognition of outstanding work
11. Promotion of good personal relations through social functions;
    full participation by principal
12. Awareness on part of staff that opportunities to advance are open
    and all eligible people will be informed
13. Opportunities for in-service training and professional growth
14. Full and clear informing of staff on all professional matters
15. Good equipment and facilities available
16. Adequate salary including various fringe benefits
17. Tactful and confidential handling of personal matters (conduct,
    finances, dress)
18. Employing democratic principles to solve problems, utilizing elec-
    tion, selection, and volunteering procedures
19. Development of feeling on part of the staff that they are recognized
    as professional people

20. Understanding relationships between the professional and non-professional members of the staff
21. Clear understanding of the role of the principal in supervisory practices.[14]

It will be seen from this list that most of these elements involve providing adequate facilities, equipment, and conditions to allow the teacher to do his job; being concerned with the personal welfare of the teacher; maintaining a good system of communication; involving the teacher in the decision-making process when he will be affected; practicing good principles of human relations; providing opportunities for the teacher to gain self-esteem; and operating in such a way as to inspire confidence.

Communication

Because of the nature of the principal's job, the breakdown of communication with his staff is a natural hazard. For one thing, it is very easy for him to get so involved in the duties of the position that he does not take the time necessary to keep his publics informed, especially his own staff.

Second, the principal will often be planning in terms of several years in the future. Certainly, every administrator worth his salt is constantly working on a long-range program for improving the school. Since these plans are often only nebulous ideas, or ideas involving elements that may not be ready for general discussion, he may deliberately not talk about them.

The hazard comes in the possibility that over a period of time the ideas will take shape in his own mind and become so much a part of his thinking that he forgets he has not yet brought the staff up to date on these ideas. It becomes embarrassing when he starts talking about these ideas outside of school and they filter back to the staff via the grapevine. If this happens often, it can be a serious demoralizing factor for the faculty.

For these reasons, each principal should develop a system of communication with all of his publics. While we are primarily concerned with staff relationships in this section, we will include several suggested avenues of communication to other publics as well.

The faculty meeting is one such avenue. It will be pointed out in the section devoted to such meetings that this should not be a place where the principal reads announcements. It does offer an opportunity, however, to discuss current problems and future plans, thus keeping the faculty up to date on the important things going on in the school.

The daily bulletin is the vehicle by which most announcements of a

14 Junior High School Workshop, *Duties and Responsibilities of the Junior High School Administrator* (Hamilton, N. Y.: The Junior High School Committee of the New York State Association of Secondary School Administrators, 1963), pp. 34–35.

general nature, but important for the smooth functioning of the school, are disseminated. Many of the announcements requiring no discussion, which too often are a part of faculty meetings, should be made in the daily bulletin. Posting items on the bulletin board in the office and the staff lounge is also appropriate for some announcements.

Another method that pays dividends is to set aside one day each month and spend the day in the faculty lounge, meeting each period with teachers who have that time as a conference period. In these small groups, with no agenda, teachers can talk about those "little things" that they do not consider important enough to come to see the principal about, yet which may make the difference between high or not-so-high morale. Principals employing this idea consider it a day well spent each month. The number of little problems that may thus be handled before they become large ones makes this practice worthwhile.

For his other publics, as well as for the faculty, the principal can make good use of the school paper, assemblies, releases to the local newspaper, PTA programs, and other special meetings. The wise principal utilizes each occasion when groups of parents are in the school as an opportunity to provide information about the school. This may be done with handouts or announcements or more subtly with displays in showcases and on bulletin boards.

All of these devices should be a part of an integrated program of keeping everyone who is involved informed as to what is happening in the school and why. Again, it cannot be emphasized too strongly that the faculty should get the news first, from the principal—not last, from the barber or beauty shop operator!

Faculty Meetings

The faculty meeting can be an important and necessary part of the functioning of the school if staff members feel it is worthy of their time. Unfortunately, this is not always the case. There are a number of ways to improve the quality of faculty meetings.

Most announcements should be handled through one of the avenues discussed in the previous section. For those announcements that require some discussion, the faculty meeting may be used. One way of improving this part of the faculty meeting is to use audiovisual devices in the presentation. This accomplishes two purposes: it makes the presentation more interesting, and it stimulates the use of these devices in the classroom by the teacher.

Morphet, Johns, and Reller offer several other suggestions for making the faculty meeting a meaningful activity. Faculty members might preside rather than having the principal perform this function. Also, the agenda

should be prepared by a faculty committee. The principal, of course, may submit items for the agenda. The major portion of the meeting should be devoted to program development and policy formulation. Similarly, committees might make frequent reports of progress.[15]

In considering items for action, the faculty should strive for consensus before taking such action. The principal participates in discussions at these meetings on a peer basis. When the faculty is considering items that concern noninstructional employees, they should be invited to the meeting to take part in the discussion and the decision. Finally, the principal should not veto actions of his faculty unless they are in conflict with state law or board policies.[16]

Faculty Committees

Faculty committees serve an important function in the school. They provide an opportunity for all members of the staff to come to grips with the school's problems. They also provide the means whereby the special abilities and creativity of each faculty member may be utilized for the good of the school.

Some schools operate with a system of standing committees, with each faculty member serving on one of them. These will vary from school to school. Some of the committees found most often, however, and their functions, are:

1. Professional Growth: This committee is concerned with workshops and various other in-service programs, and with other ways for promoting the professional growth of teachers.
2. Policy: As indicated by the title, this group considers any item concerned with school policy.
3. Public Relations: This group coordinates the program providing for a continuous, well-planned flow of information to the citizenry.
4. Research: This committee works with any group in the school that is trying new approaches or is in any way involved with experimentation. Its purpose is to assure that some methods of evaluation are built into the project from its inception.
5. Curriculum: Sometimes called the steering committee, this group, made up of representatives from each curricular area, considers all proposals for change that affect the curriculum.
6. Social: Since one of the ways of creating a faculty that works together harmoniously is to bring them together in an informal atmosphere, the social committee performs this function.

[15] Morphet, Johns, and Reller, *op. cit.*, pp. 288–89. Reprinted by permission of Prentice-Hall, Inc.
[16] *Ibid.*

While other committees might be named, these are the ones most frequently found. When such a system of standing committees is used, it is helpful, for purposes of continuity, to have some carryover of members every year. One method is to have each member serve a two-year term. It also helps to have the chairman be someone who served on the committee the previous year. A further link is to have the chairman serve the year following his chairmanship as a member of the committee.

Some administrators do not like the idea of standing committees. They feel that in too many instances the committee looks around for busywork since it "should be doing something." They prefer instead to form committees as the need arises.

Under this system a problem may be presented to the principal, perhaps in a faculty meeting. After a brief discussion, if there is evidence that it is in fact a problem about which sufficient interest exists to warrant study, the principal simply states that an announcement will appear in the daily bulletin indicating the time and place of the first meeting of the committee. Interested faculty thus come to the meeting, elect a chairman and recorder (or the principal may ask someone interested in the problem, prior to the meeting, to serve as chairman), and go to work.

If the problem is one that may be handled in a relatively short time, such as improving the system of handling tardies, it may meet a few times, draft a proposed plan, and report back to the faculty for discussion and approval. If it is a more involved problem, such as a schoolwide push to upgrade spelling, the committee may meet all year with periodic progress reports and discussions at faculty meetings, prior to the ultimate final report and action by the faculty.

In either case, when the work of the committee is finished and the faculty has acted upon its recommendations, the committee is dissolved. This type of organizational plan has the advantage of having only those faculty members who are interested in the particular problem working on it. Furthermore, the knowledge that when their work is finished the committee will disband, rather than look for new problems, is another incentive. The biggest disadvantage is that since it is strictly on a voluntary basis, some faculty members may not ever volunteer. It then becomes the job of the principal to nurture some professional growth in the staff member involved. Some faculties get around this by the policy that everyone must serve on at least one committee during the year.

FINANCE

Requisitions

The responsibility for handling requisitions is often delegated to an assistant principal. Jacobson, Reavis, and Logsdon discuss requisition pro-

cedures in detail. Some of the most important suggestions they offer for requisition procedures where the central office operates a central supply warehouse are summarized as follows:

1. Requisitions should be received in the central office on a set day of the month.
2. The principal should have a regular time at which requisitions are received from teachers. (The use of a form for this purpose, though not as detailed as that used for the central office, is recommended.)
3. Printed forms in triplicate should be used for requisitions to the central office. Copies number two and three go in, while the original remains at the school.
4. Requisitions should be handled by clerks.
5. An accounting system should be set up for requisitions which is detailed enough to permit an evaluation of the uses made of the supplies.
6. Periodic checks should be made to ascertain if unusual amounts of materials are being used in any area or by an individual.
7. Emergency requisitions should be reserved for emergencies. (An emergency is not that you forgot to requisition it.)
8. The principal should familiarize himself with the supplies required in special areas such as industrial arts, art, etc.[17]

Most intermediate schools operate a small supply room that contains those items used frequently in the school. Requisitions for items thus available are usually made on a very simple form. Most schools use a system of having materials that are requisitioned today available prior to the open- · ing of school tomorrow. A clerk usually handles these supplies.

Some schools have set up an "open storeroom." Under such a plan teachers may go into the storeroom at any time and take what they need. The proponents of this system say that better faculty morale and decrease of "hoarding" makes this plan superior to those requiring requisitions. Those who do not favor this plan say that keeping the stock room supplied is a problem since it requires more time to check all items daily. (This is opposed to the requisition system where you simply reorder items as you use them.) They also say that you have no way of following up where waste is occurring since you do not know who is taking what.

The School Plant

Usually an assistant principal is in charge of supervising the school plant. This includes safety, maintenance, and use (by outside groups as

[17] Paul B. Jacobson, Wiliam C. Reavis, and James D. Logsdon, *The Effective School Principal* (2nd ed.). (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1954), pp. 477–79. Reprinted by permission of Prentice-Hall, Inc.

well as for the school's program). The supervision of the plant and grounds is a collateral function of the head custodian. A good head custodian will be alert to safety hazards and will notify the principal or assistant principal immediately if there is something the custodial staff cannot remedy.

The head custodian should also have a policy whereby, as his staff go about their assigned areas of the building performing their duties, they are always alert for equipment and facilities needing repair or replacement. As such items are reported to him, he in turn checks on their condition and reports to the member of the administrative team having this responsibility. Teachers, too, should make similar reports. In this way, necessary maintenance work is known promptly and can be taken care of before it becomes a more serious problem.

Even with such a system of alerting the person responsible, that administrator should still make periodic checks of the plant and grounds on his own so that he has firsthand knowledge of the condition of all facilities and equipment. Proper maintenance of the plant and its equipment saves untold tax dollers over the life of the school.

Room utilization is another item about which the principal needs to be cognizant. It is wonderful for staff morale when each teacher has his own room, used only by him throughout the day. He can work in his room during conference periods or have student or parent conferences there. Custodians report that desks and furniture are much better supervised when one teacher is responsible for a room.

Unfortunately, most school districts are faced with the problem of maximum utilization of the school plant. It behooves the principal to schedule the program carefully to assure as near-maximum use as possible. To schedule all teaching spaces 100 per cent of the time is a Herculean task beyond the reach of most mortals. The principal who has 90 per cent or better utilization of all classrooms and 80 per cent or better of specialized areas such as art or music rooms, the auditorium, physical education facilities, and industrial arts or home economics spaces, is considered by most authorities to be doing an excellent job.

Most school districts like to utilize the building for community purposes when schools are not in session. Under such a policy the district should set up regulations for such use and a schedule of appropriate fees. This last item is too often overlooked by principals until they suddenly realize that they have inherited a budgetary problem because of groups using the building at night. Custodial help and supervision, use of specialized and expensive equipment, and liability are all items that should be covered in district policy. The frequent use of the auditorium, including a spotlight that has a bulb with a short life span (even shorter when handled inexpertly), may develop into a budgetary problem if a fee is not charged, or if this item is not covered in the school's budget.

Secretarial Services

The school's secretarial staff can not only be the source of efficiency and smooth operation of the routine matters of the school, but it can also be the source of excellent human relations with the staff, students, and citizens. For these reasons, the selection of the secretarial staff and their daily functioning are important responsibilities of the principal.

It is important that the effect they have on school morale through contact with staff and students is well understood by the office staff. With this understanding they should then conduct themselves in such a way that students and staff enjoy their association with the office. When teachers begin avoiding "going through" the office staff for routine matters, or feel uncomfortable in their associations with the secretaries, it is time for a reevaluation of how the office force is handling its relationships with teachers. It is most important that the office staff realize that they exist to serve the teachers, not vice versa.

Teachers generally find any type of clerical work distasteful and complain that it takes them away from the teaching task. It becomes very important, therefore, that the staff not be asked to do those jobs a clerk can do more efficiently. It is equally important that teachers understand that there are certain things asked of them by the office which can only be accomplished in a reasonable amount of time with their help. This understanding and the way secretaries ask for this information is an important element in good staff morale.

If the school district will provide such a service, secretarial help should be provided for the teachers. A good typist can do some work for teachers more efficiently than they can do it themselves, saving the teachers' time for tasks only they can perform. Unfortunately, convincing boards of education of this fact seems extremely difficult to do. It is worth the principal's best efforts, however, in increased faculty morale.

The secretarial staff should take as much of the clerical routine tasks from the teachers as possible. The attendance procedures for the teacher should be fast and practically effortless, with the pupil accounting required by state offices handled in the school office. In addition to typing, duplicating materials, and handling supplies and materials, some schools handle scheduling of conferences and securing audiovisual materials through the office.

For some parents and citizens, the only personal contact with the school is a telephone conversation with a school secretary. For this reason it is well that she be aware of her public relations function and act accordingly. The same is true in her relations with students. The secretary whose approach to students is that they are to be tolerated has no place in a school office.

If the office has more than one secretary, one, usually the principal's secretary, should be designated as the office manager. As such, she organizes the work of the office to assure its orderly flow. She also supervises the work of the other office personnel. As any experienced principal will testify, a good school secretary is worth her weight in gold, for the office is an important element in the general tone of the whole school.

One of the responsibilities of the office staff is the maintenance of records. Most of the records relating to the guidance of students are maintained by the guidance office. This includes cumulative folders and those records transferred to another school when the student leaves. Permanent record cards are maintained in the office. It is from these that information is secured when requested by future employers and when institutions request transcripts.

Attendance records are also maintained in the office. Most states require accurate records of attendance in order to reimburse the district with state funds. This makes careful keeping of these records mandatory. Card files or data processing systems are rapidly coming into use for this function.

The preparation of report cards may be handled through either the guidance office or the school office. Once they are issued, duplicates are maintained in the school office for the current year. As grades are transferred to the permanent record card, report cards are destroyed.

Other records are maintained by school offices for individual reasons. These sometimes include textbook inventories, equipment and plant facility inventories, citizenship records, health records (though these are usually maintained in the nurse's office), and bus routing information.

Whatever records are maintained, it is essential that the forms used, the various depositories for different records, and the length of time they are maintained be carefully studied and worked out. Otherwise, duplication of effort and the voluminous collection of useless information results.

Research Activities

In the past, the practitioner in the field has tended to be content to leave research activities to the colleges and universities or to large privately funded research projects. The principal and the staff in the school have an obligation, however, to conduct research activities related to their own programs. For one thing, when a faculty program or a new technique is instituted, the pupils and parents have a right to expect that the change has been carefully studied, that it shows reasonable promise for a desirable change, and that the school will conduct enough research to indicate what improvements, if any, actually are taking place.

When a new program has been in force for two years or more, the principal should be able to answer questions with more foundation than "we think the students are learning more." He should be able to indicate what research on the program to date indicates.

The staff has an obligation to the profession to indicate what they have found about new programs they have tried. It is hoped that this will be particularly true of the new experiments with the middle school. As new ideas are tried, it is hoped that successes as well as failures will be reported. Both are worthy of recording, for education has a way of making large circles and ultimately coming around again. Perhaps part of the reason for this is that we are not prone to write about why a program failed. This too, however, is important knowledge, and worthy of research reporting.

Probably one reason why some principals and teachers are reluctant to get involved in research is that they think of elaborate studies involving sophisticated statistical procedures and they feel inadequate. It is hoped that school systems will increasingly move toward adding research directors who will conduct such studies. However, each school or several members of a staff can conduct small ongoing research projects that will be of value to the individual school. The principal should furnish leadership in encouraging this kind of research.

As mentioned earlier, we have an obligation as professional people to report these activities. The professional journals are receptive to such writing. It can also be written in mimeograph form and exchanged with fellow principals who are interested in similar problems. The state principals' association is a good avenue for this writing.

Federal Programs

With the amount of money currently available in federal funds for programs of various kinds in the public schools, it is almost imperative that each principal familiarize himself with what is available that applies to his school situation. Because of the volume of printed material published by the federal government on these programs, plus the myriad of forms and procedures to go through to receive the funds, many districts now employ a central office administrator whose sole responsibility is securing and administering these funds. This is certainly the best way of approaching the problem.

Whether the district has such an administrator or not, each principal should investigate, on his own, whether projects of his staff are eligible for federal funds or not. The best sources of firsthand information are the State Department of Education or the County School Superintendent's office, if your state has this type of organization. The regional office of the Department of Health, Education, and Welfare is also an excellent source for answers to your questions. Since new programs, new directives, and new interpretations are coming out of Washington all the time, this is an especially valuable source of information.

Once funds have been acquired, it becomes necessary to maintain certain documents and data relative to the program. These programs require certain strict steps of reporting. It therefore behooves the principal to acquaint

himself with what will be required as the program progresses and to assure himself that these requirements are met.

Regardless of one's personal feelings toward federal aid, there is no doubt that such funds are here and probably will increase. It is up to principals and central office administrators to assure that these funds are utilized for the good of the educational program.

Summer Programs

Summer programs have become increasingly popular over the past several years. Up until recently, most intermediate school summer programs were primarily designed to allow the student who failed one or more subjects during the regular year to make them up. Generally speaking, such programs were not outstanding in their success.

More recently, schools have expanded their summer programs so that the remedial or makeup function has become a relatively small segment of the program. Few intermediate schools conduct programs designed to move the student through the school in a shorter time. Most summer programs are geared toward enrichment.

Programs for enrichment are handled in a number of ways. One phase of the program is in the area of special talents. Thus, a pupil who is talented in art, for example, may pursue areas not covered in the regular school program. The same would be true of band or orchestra or drama.

Another type of enrichment program takes place within the academic subject areas. Again, the approach is one of extension beyond the usual program. In some instances the program varies from year to year and takes advantage of the opportunities at hand. The social studies program during an election year, for example, may study political institutions and utilize all of the special television and local resources available.

Another phase of the program provides time for electives that would otherwise be crowded out of the regular program. As an example, personal typing is a popular subject for summer school. Drama is another popular subject in some summer schools.

The results of expanding summer schools at the intermediate level over the past several years would indicate that this may be the avenue that will come close to the all-year school.

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Staff Personnel Practices

In the past, the most common school unit between the elementary and senior high schools has been the three-year junior high school containing grades seven through nine. Despite the fact that this unit has been in existence for over fifty years, there is still no commonality in personnel practices pertinent to the unit. As the number and kinds of intermediate schools increase, the uniqueness of these units presents a challenge to teacher training institutions, state departments of education, and local school districts to provide the necessary leadership in establishing adequate personnel practices.

In any discussion of personnel practices, areas of consideration should include policies and policy development, staff qualifications, selection and induction of personnel, teacher load, staff relationships, teacher welfare, and evaluation. Some of these—staff qualifications, for example—require involvement at the state level with certification, while others are related to the specific school district. A consideration such as teacher welfare is pertinent to all levels of school organization, while another, criteria for selection of personnel, will be peculiar to the specific intermediate unit.

The present chapter will suggest some guidelines for acceptable personnel practices that should strengthen staffing and provide optimum working conditions for staff members after assignment.

POLICIES AND PRACTICES

A policy statement is a working agreement. Policies help define relationships between school personnel, pupils, and community members while working toward achievement of the educational goals and objectives that have been established.

Personnel policies are related to the personal and professional welfare of the staff. They include broad guidelines for selection, retention, promotion, tenure, dismissal, sick leave, remuneration, etc. It is the responsibility of the board of education to see that adequate and extensive policies are developed with the best interests of the staff in mind.

Importance of Policies

A comprehensive set of policies is a prerequisite for the efficient operation of any school district. The complicated organizations that exist today and the number of personnel required for their operation mandate the existence of policies. For the same reason that policies are necessary on the school district level, they are necessary within each individual school.

High morale among staff members is of the utmost importance if the school is to function for the welfare of the children. Equitable practices pertaining to such areas as promotion and assignment of personnel are essential to the development of high morale.

Staff Involvement in Policy Development

In addition to serving the function of enhancing staff morale by providing a guideline for equitable practices, policies also provide a means for practicing what is commonly called democratic administration. Policies should be developed by those who will be expected to abide by them. They offer an opportunity for the utilization of staff abilities and the development of potential leadership.

The administration organizes teachers for such involvement whether it is on the school district level or the building level. Once school district policies have been developed, they are presented to the school board for its official approval. Policies developed for a specific building and pertinent only to that unit need not be approved by the board. It is understood that these will not be contrary to any policies of the school district.

At this point, examples might serve to illustrate policies developed on the school district level as compared with those for an individual school unit. A board of education might adopt a policy that reads:

> *Extra-curricular assignments are considered part of the teaching assignment and shall be assigned equitably to teachers in determining work load. Where these assignments are over and above the time allotments of the work week policy, additional compensation shall be made by the board of education.*[1]

A related policy that might be adopted within the school itself would then read:

[1] *Personnel Policies for Ocean County Public Schools* (Toms River, N. J.: Office of County Superintendent of Schools), p. 31.

Each teacher shall sponsor a minimum of one club or other form of extra-curricular assignment.

STAFF QUALIFICATIONS

When staffing any intermediate school, several competencies should be required. An understanding of human nature and child development is foremost. This makes it essential that each teacher and administrator possess the firm background in sciences such as biology and psychology that forms the base for developing these understandings. Another requirement is mastery of the skills of working with children so as to motivate them and develop their abilities to the greatest extent possible.

The Principal and Vice-Principal

Any administrator should be a liberally educated individual. He needs the kind of background provided by what is commonly called general education, about which Douglass says:

> *General education means broad, non-specialized education, including various areas of culture and knowledge that should be common to all truly educated persons as individuals and as citizens in a free society. It is that part of education that is concerned with knowledge, skills, attitudes, interests, and ideals needed by each individual to be effective as a citizen, a worker, and a member of a family who understands the more important aspects of the world in which he lives. A broadly educated person has some knowledge of history, economics, political science, sociology, geography, physics, chemistry, biology, grammar, literature, speech, philosophy, psychology, and the fine arts.*
>
> *General education not only consists of knowledge and understanding but it also covers important personal disciplines. Among these are the various intellectual skills in reading, thinking, problem-solving, and appropriate habits of behavior.*[2]

Both the principal and vice-principal must have a strong foundation of knowledge in the areas of sociology and psychology if they are to understand the children and community served by the school. They must be interested in ideas that can be learned from people—such people as probation officers, juvenile court judges, local employers, etc.

Professional preparation required of the principal and vice-principal must include a knowledge of schools above and below theirs, and an understanding of the history and philosophy of education and of the learning processes of adolescents. Such courses in administration should be included as those dealing with the democratic philosophy of educational administra-

[2] Harl R. Douglass, *Secondary Education in the United States* (2nd ed.) (New York: The Ronald Press Company, 1964), p. 434.

tion, the day-to-day operation of a school, supervisory practices, and public relations. The administrators must also know principles of curriculum construction and methods of research and teaching.

Both the principal and vice-principal for an intermediate school should have had classroom experience working with the particular age group served by their unit. An individual who has taught only juniors and seniors in a senior high school has not acquired a thorough, working knowledge of the preadolescent and early adolescent. One who has taught the fifth or sixth grade in an elementary building or any of the grades in a three-year junior high school has acquired firsthand experience of great value. Previous administrative experience should include elementary or junior high school, preferably both.

One of the best methods for providing experience for prospective administrators is the internship. Many institutions that have training programs for school administrators include an internship program. School districts provide placement for interns just as they do for student teachers. Because of the newness of some forms of intermediate schools, such opportunities will be difficult to find for a while.

In addition to the above-mentioned qualifications, successful administrators must possess certain personal attributes. The key administrative positions are arduous and demanding. It is essential that individuals holding these positions possess excellent health and the needed energy to cope with the day-to-day operation of the school. Needless to say, the individual who does not possess the physical energy to work long hours in school and out should not attempt to fulfill the duties of the principal or vice-principal of any school unit.

Administrators as well as all other staff members must possess an attitude of willingness to accept the characteristics of the age group served and all the attendant problems. The willingness to cooperate with staff, parents, and community is essential to providing the kind of guidance and programs needed by boys and girls.

The school staff needs leadership to provide a strong program in a difficult situation. The administrators are in a position to provide this leadership and must recognize it as their responsibility. They must be able to organize and motivate the school staff to develop the best educational system possible.

The Teachers

It is essential for good teaching that teachers possess some understanding of all areas of knowledge, including the humanities, social sciences, and natural sciences. In addition, the relationships of these areas to one another and their influence upon the development of the individual and upon society should be part of the teacher's own general background.

While it is expected that some types of intermediate schools will include

self-contained classrooms in the lower grades, teachers assigned to these grades should also have a thorough training in at least one subject matter area. Teachers who have been specifically trained for secondary school work will, of course, be equipped with a subject matter specialization and will be prepared to work with older students.

Knowledge of pupil growth and development is an essential attribute for teachers in intermediate schools. Because these particular units encompass a stage of rapid development and change, teachers of these children need to know not only about physical changes, but also about their effects upon emotional and mental development. No longer will teachers of fifth- and sixth-grade children be unconcerned about the aspects of full adolescence. By the same token, many secondary school teachers who were oriented toward the three-year junior high school, as it commonly existed, will now need to know the characteristics of fifth- and sixth-grade children.

Vitality and energy are essential to the effective teacher. Excellent health is needed by any teacher who must bear the rigors of the classroom. Pupils of the age group served by an intermediate school can be very taxing, and an energetic individual is needed to cope with them. In addition to classroom teaching, the adequate performance of extra duties requires energy. It is expected that teachers will lend their efforts to additional duties such as student activities.

The teacher's appearance affects the entire classroom atmosphere. A neat, clean, and "well-pressed" look establishes an example for the students, who are highly impressionable. It must be remembered that these boys and girls are very aware of those around them and are becoming quite conscious of their own appearance. A good example should be before them in the appearance of their teachers.

An important personal attribute of the teacher is his attitude toward his assignment. Teachers must work at the intermediate school level because they want to and because they are interested in children at this particular stage of development. The individual is needed who is willing to experiment, to provide the challenge that opens new worlds for his pupils. The teacher who considers an intermediate school as only a steppingstone to the senior high school does not belong. There is a definite kind of teaching, an exciting kind of teaching, to be done; it must be viewed as exciting by the teachers involved.

Other Personnel

Several kinds of personnel are required to complete the professional school staff. Qualified guidance counselors, both male and female, are needed. Because of self-consciousness about their own maturing and its attendant uncertainties, boys and girls should have the opportunity to discuss personal problems freely with counselors of their own sex.

One of the specialized staff members who works closely with the guidance department is the reading specialist. Sufficient reading specialists should be assigned to every intermediate school unit to make certain that each child will be utilizing his potential in this area. Skill in reading becomes more important to the student each year that he progresses through school. Reading ability is basic to accomplishment in any area of learning; it is particularly important to the adolescent because it is through reading that new interests and new areas of knowledge will unfold for him. Reading supplies him with a means for satisfying his curiosity.

The poor reader will gradually fall more and more behind his contemporaries if he is not given the necessary help. It is not unusual to find a spread of eight years in reading level in a single eighth-grade class. The poor reader not only falls behind in his work but develops feelings of inadequacy which can become very frustrating.

School librarians with the status and salary of regular teachers are needed. Librarians must possess enough understanding of education to serve on school curriculum committees with other teachers. They must be trained in library techniques and in education, and they must understand how to encourage pupils and teachers to make the maximum use of material resource centers in modern schools, especially those with new techniques and materials.

Clerical aides in material resource centers are a feasible, economical means of making its resources more available. These individuals are not fully trained librarians and often are not college graduates. Through special training by the regular librarians, they are able to assume many routine tasks. Library aides might be placed on the same salary scale as clerical help in the school office.

As described in Chapter 3, body changes are taking place rapidly in both boys and girls of intermediate school age. The biannual examination as conducted in some school districts is not sufficient. The medical staff should include a physician for annual examination of the pupils. Even better would be the appointment of two physicians, a man for the boys and a woman for the girls. This would make the medical examination more acceptable to these pupils, who are very conscious of their bodies at this time.

At least one full-time registered nurse should be assigned to the school. Her tasks should include the handling of emergencies, routine examinations, consultations with teachers and pupil conferences, and service as a resource person for teachers, particularly health teachers.

Other staff members needed to provide a complete health service would include a psychologist and a dentist. Each should be available on at least a half-time basis. The function of the psychologist would be to make recommendations to the school staff and parents in cases where help is needed by the student. Part of the psychologist's task would be to assist

teachers in interpreting test scores and applying what is known about their pupils in order to have a better teaching–learning situation.

The school dentist is responsible for examining pupils, preferably on a biannual basis. Appropriate grade levels for such examinations would be grades one, three, five, seven, nine, and eleven. Parents should be notified if there is any work to be done by the family dentist. The school dentist is not expected to perform dental work of any kind. His function is merely one of examination and referral.

Each member of the health staff must be fully and legally qualified according to medical standards to perform the services for which he has been employed. There are no certification procedures for school physicians but they do exist in some states for the other positions. A major qualification for these positions as well as for those in guidance, reading, and the material resource center must be a thorough knowledge of the age group served within the specific school organization.

Certification

A fundamental purpose of certification is to protect the children and the state against incompetent or inadequately trained teachers. Certification requirements establish minimum qualifications for a certain division of the school system and/or subjects for which special preparation has been made. This is to help eliminate the practice of hiring a teacher for special reasons and then assigning him to a grade or subject vacancy for which he is completely unprepared.

As yet, there is no pattern of certification for the staff assigned to an intermediate school. Even in the case of the junior high school, which has been in existence over half a century, a majority of the states have no specific pattern for the certification of junior high school teachers.

W. R. Hoats found that forty-six states accepted the secondary certificate for grades seven through nine while twenty-one accepted the elementary certificate.[3] Even in those few states where a junior high school teaching certificate is issued, the majority will accept an elementary or secondary certificate for the teacher. Hoats found also that twenty-eight states have institutions offering a junior high school teacher education curriculum, junior high school teacher certification, or plans for this certification.

In addition to the study by Hoats, one completed by William E. Wilson showed that of the forty-two states included in the study, the majority require junior high school teachers to have a secondary certificate or an elementary certificate with some type of modification, endorsement, or requirement. Only one state reported a so-called junior high school pattern.[4]

[3]. W. R. Hoats, "Junior High School Teacher Certification," *The Bulletin of the National Association of Secondary School Principals*, XLVII (October, 1963), 47.

[4] William E. Wilson, *The Junior High School*, A Report Prepared by the Indiana Association of Junior and Senior High School Principals, Bulletin No. 246, Indianapolis, Ind.: State of Indiana Department of Public Instruction, 1961, p. 100.

In practice, it appears that the prevailing philosophy has been that there is little need for certification standards and regulations when there are few teachers who meet the requirements. Neither the secondary nor elementary certificate is appropriate in itself for any form of intermediate school. None of the teacher training programs for these certificates provides the necessary background for meeting the needs of children in the intermediate unit whether it is the traditional three-year high school or any of the other possible grade organizations.

The establishment of certification regulations for intermediate schools should be reflected in teacher training programs. The teacher training institutions tend to adapt their programs to state requirements. Ideally, good training programs should be established by the institutions, which would, in turn, ease the task of establishing more specific certification requirements at the state level.

Certification requirements for all administrators, teachers, guidance counselors, reading specialists, and librarians should include a large segment of general education. This will provide the broad background needed by those who work with children during the preadolescent and early adolescent periods. Competence in language skills including reading, listening, and written and oral expression; an understanding and appreciation of literature; and a knowledge of the physical, natural, and social essentials should be required of all.

Another requirement is knowledge of human growth and development, with emphasis upon the child from ten to fifteen years of age. It is during this period that the child goes from childhood through pubescence to early adolescence. This is a time of physical, emotional, and social change; it is this age group that is enrolled in intermediate schools. School personnel need to understand the patterns of growth peculiar to this developmental stage as well as the relationship of this period to the ones before and after in order to become aware of their implications for the curriculum, teaching methods, and teacher–pupil relationships.

An understanding of the functions of intermediate schools, how such schools developed, and the basic philosophies that have contributed to the appearance of various kinds of organization is another area of knowledge needed by all members of the professional staff.

Certification requirements specifically for principals and vice-principals should include basic preparation for administration and work in public relations. Above all, there should be an emphasis upon training these administrators as educational leaders. The development of supervisory skills is essential. This is in keeping with the idea that the major task of the principal is improvement of instruction. Administrators also need to know the functions and the administrative and supervisory organization of the school units that precede and follow it in order to administer a middle unit that is intelligently related to the others.

In addition to the broad, general areas named above, teachers, need

preparation with some depth in one or more specific subject matter areas. Whether an individual teacher is assigned a block-time type of program, a self-contained classroom in the lower grades of an intermediate school, or a departmentalized schedule in the upper grades of such a unit, he should have this intensive training in some subject area. The idea, of course, iends itself very well to some forms of team teaching and also makes it possible to assign the teacher to any level in the school. It is the responsibility of teacher training institutions to provide the kind of preparation needed so that fully prepared, qualified teachers are available.

Bossing and Cramer have expressed the need for specific training for the various levels as follows:

> The present deficiencies in most college and university programs offering training for junior high school teaching will not be overcome by universal teacher preparation programs which fail to recognize the distinctive nature of learning at the elementary school level, the junior high school level, and the senior high school level. This in no way negates the commonalities inherent in all learning; in analogy, we might think of a family consisting of three individuals residing in the same house but requiring unique resources to meet their individual needs. When resources are non-existent or do not fill one member's needs, a state of disequilibrium is established within the family unit which reduces the strength and effectiveness of all members. This concept is strikingly applicable to the "family" of the three different and separately functioning school units.[5]

If we substitute the term "intermediate school level" for "junior high school level" in the above, the ideas may be applied to what has been said about the need for specific training for the specific level and the responsibility of state departments of education and teacher training institutions to work cooperatively in producing qualified teachers.

Other professional personnel such as the guidance, reading, and library staff need the same kinds of background as teachers but, in addition, certification requirements must include the specific competencies necessary for their positions.

Staff Selection and Induction

One of the major difficulties in staffing intermediate schools is the lack of personnel specifically trained for that level. The assignment of elementary teachers alone or secondary teachers alone is not the answer. To add to the difficulty of selecting an adequate staff, many teachers are not interested in this particular level because of the problems of working with the

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[5] Nelson L. Bossing and Roscoe V. Cramer, *The Junior High School* (Boston: Houghton Mifflin Company, 1965), pp. 336–37.

age group. Too many teachers regard the middle school unit, whatever it may be, as a steppingstone to the senior high school position that is their ultimate goal. Administrators must search for and select individuals who are really interested in the developing child and who will remain at this particular level while increasing in competency and effectiveness.

Selection

Adequacy of staff should be considered from several viewpoints, one of which is number. The number of personnel in all categories depends upon the policy of the board of education as to what constitutes a work load, a desirable class size, and teaching methods. The number of teachers needed in a school where it is believed that every teacher should have at least one unassigned period per day is different from that in which the board of education has decreed that no teacher should have more than two unassigned periods per week.

The board of education holding the viewpoint that thirty-five pupils is not too large a number for a class will need fewer teachers than the board which believes that twenty-five to thirty pupils in a class is an acceptable number. In a school where much individualized attention is given, the number of personnel, of necessity, will have to be greater. If team teaching with large-group instruction and small-group discussion is employed, its effect will be felt when determining numbers of staff to be employed, particularly if groups are kept quite small for discussion purposes.

In addition to teachers, kinds of professional staff required include a principal and one full-time vice-principal for every 600 to 750 pupils, with an additional part-time vice-principal as the number of students approaches 1,000. One guidance counselor should be assigned for each 250 to 300 students. At least one fully trained librarian, preferably with a knowledge of public school curriculum requirements, should be in charge of the instructional materials center with additional nonprofessional help.

Reading specialists must be assigned in sufficient numbers to give assistance to all students who require it. These specialists would also be responsible for developmental reading and for assisting classroom teachers in coping with reading problems found in their classes. There is no set rule for predetermining numbers in this case. The number of specialists required would be dependent upon the characteristics and needs of the student body served.

Medical specialists should include school nurses, doctors, dentists, and psychologists, with one full-time nurse for every 700 to 1,000 students. A doctor and dentist would be under contract for a specific sum of money in return for which they would carry out the necessary examination of pupils during the school year.

A full-time psychologist is preferable to one on a part-time basis. In

the latter case, one finds that the psychologist spends his time with only the most urgent problem cases. If he were available full time, he could also provide many kinds of consulting services and assistance to all staff members.

Another consideration in staff selection is teaching experience. In any school, there should be a reasonable balance between "new blood" and experienced teachers. Experienced teachers who remain in a school district help to give stability to it and the school in which they teach. They are familiar with the school organization, curriculum, and kinds of pupils, and with the community itself. Their assistance to new teachers can be invaluable.

On the other hand, there always exists the possibility that experienced teachers who have remained in the same position for some time might become too comfortable in the "rut" they have established for themselves. For this reason, new teachers are regarded as a source of new ideas and enthusiasm that might be lacking among established faculty members.

When new staff members are employed, a healthy percentage should originate from other communities or states. This provides a variety in the background of experience of the staff as a whole which, in turn, influences their attitudes and views in decision making. It also provides a greater variety in teacher backgrounds from which students could profit.

Age, sex, and special talents are other factors for consideration. A reasonable proportion of the teaching staff should be from each age bracket —lower, middle, and higher. Each age group would characteristically have views influenced by the experiences they have had during their life span. The maturity of older staff members is needed to balance the relative immaturity of the younger ones, while the enthusiasm and vitality of the latter are also an asset. There should be a balance between men and women; both have unique contributions to make and pupils need to have contacts with both sexes. Teachers of their own sex will help pupils determine their own developing sex roles. It is unhealthy for pupils to be exposed to teachers of one sex or nearly all one sex. This situation does not exist in society and should not exist in schools. Special talents such as athletics, dramatics, and music personnel are needed to sponsor activities that satisfy the needs and interests of pupils and to assist in developing their particular abilities.

Because of the present difficulty in recruiting qualified staff members, it will be necessary, temporarily, to select elementary and secondary personnel who have worked successfully with pupils of the age group included in each unit. If, for example, the school is to include grades five to eight, the major source of teachers for grades five and six would be those trained for elementary schools. Grades seven and eight would be staffed by teachers trained for secondary schools who, if experienced, have taught successfully in existing junior high schools or in the upper grades of eight-year elementary schools.

The administrator who bears the responsibility for selecting a staff should make a definite effort to determine the individual's basic philosophy of education, objectives for which he will work, and what he believes to be important in education. He should also determine the extent of the individual's knowledge of new developments, trends, and practices in such areas as teaching bright and slow children, use of all kinds of audiovisual equipment, team teaching, and community relations. Most important, perhaps, is the individual's willingness to recognize the importance of his assignment to an intermediate school and a willingness to become competent and remain on that level.

Administrative personnel such as the principal and vice-principal are initially screened by the superintendent who, ideally, recommends one individual for a position. Decisior; upon other personnel should be made by the building principal and superintendent, although department heads can be appropriately involved in teacher selection. All recommendations for the appointment of staff members are made to the board of education through the superintendent.

Qualified staff members may be supplied by colleges and universities where they have undergone preparation for a profession in education and where they may have done student teaching in the particular type of school unit for which they are being considered. This will become increasingly common as the various forms of intermediate schools increase in number. Candidates are also obtained as a result of being acquainted with the superintendent or other members of the school district staff. Professional placement bureaus associated with colleges and universities and commercial teachers' agencies are another source.

LOAD CONSIDERATIONS

The load of any individual staff member is comprised of his entire assigned responsibilities, which may include actual teaching periods, extracurricular assignments both within the school day and after school hours, and membership on committees. It is often easy for disparities to creep into the assignment of teacher load because of the variety of factors that must be considered.

Factors in Load

One factor in load is the number of subjects taught. This is an important consideration because of the time spent outside the classroom in planning. In a departmentalized situation, a smaller number of preparations is easier to accomplish than in a self-contained classroom situation. In the latter, use of special teachers can be of great help.

Another factor is the number of pupils. A teacher who works with

classes of forty pupils each period of the day has a very different load from one who teachers five classes of twenty-five each. Teachers of special subjects should be given some consideration in determining load because of the numbers of pupils with whom they work, which may, in many cases, include every pupil in the school. Teachers responsible for large- and small-group instruction in a team-teaching situation have different kinds of preparation than does the ordinary classroom teacher. Consideration must be given to an allotment of time within the school day for these teachers to meet together for planning. Another scheduling arrangement that has a bearing on load is the block-of-time. The block-of-time teacher with responsibility for more than one subject needs more extensive preparation for classes than the teacher who works with only one subject on one grade level.

Too frequently, little or no attention is paid to the amount of time spent on routine and clerical work, which may make the load excessive. The physical education teacher who must keep track of locker assignments, equipment, etc., often has a more extensive and different kind of clerical work than a mathematics teacher. The music teacher who comes into contact with every pupil in the school has more record-keeping and paper-work when grades must be averaged for report cards than the English teacher with 150 pupils or the teacher in a self-contained classroom with thirty pupils. Clerical aides can be trained to be of great assistance in these situations.

Cafeteria, corridor, and bus duty must also be considered part of a teacher's load. Care must be taken that teachers assigned to cafeteria duty have the opportunity for a quiet, uninterrupted lunch period themselves. Teachers should not be assigned routine duties that might be more appropriately assigned to student government representatives, clerical help, or members of the janitorial staff. In some instances, lay members of the community have assumed cafeteria and bus duty with great success. They may work on a voluntary basis or may be placed on the payroll with an hourly rate of remuneration.

One other important consideration cannot be ignored. It has been stressed that the assignment of teacher load should be made as equitable as possible. However, it is advisable to assign a lighter load to new, inexperienced teachers who need more time for preparation and planning; to give them an opportunity to observe other staff members in the classroom; and to see all staff committees in operation.

Problems of Staff Utilization

There is a need for better utilization of teachers. Too frequently, the best and the poorest are used in the same way. Teachers should be assigned where they can make their greatest contribution to the educational program. One can find in any staff a tremendous variety of talents and special abilities.

General science teachers who have a special interest in astronomy c· geology should be assigned to large-group instruction in those areas so that many pupils might benefit from their competence. The teacher who has had experience in journalism in college is a natural choice for working with the school newspaper and magazine. Those active in little-theater groups can apply their capabilities to school productions requiring dramatic coaching. It is important that administrators discover these individuals and use them to the best advantage so as to make possible their contribution to the growth of a vital school.

Greater efficiency can be obtained by varying class size as well as the responsibilities of teachers and their aides. There is no basis whatever for organizing every class so that it contains twenty-five to thirty pupils. Large- and small-group instruction patterns have broken this tradition. Since some teachers excel in working with large groups while others function more effectively with smaller groups of students, assignments should be made accordingly.

As stated previously, teacher aides can be effectively utilized in intermediate schools. While clerical assistance is one way in which to make use of these individuals, it is also possible to use college graduates for reading themes, reports, essays, and mathematics exercises. Some could advise students and serve as laboratory assistants. Other possible assignments include supervision of field trips and control and supervision of students on school grounds and outside the classroom.

Another factor that is beginning to have an impact upon staff utilization is the changing role of the classroom teacher. The increasing use of various instructional aids such as television, tapes and tape recorders, programmed learning, and so forth is one of the basic causes for this change. Team teaching, variations in class size, and such organizational patterns as large-group instruction with small-group discussion are creating a change in previously established patterns of staff utilization. Regardless of the pattern adopted, the major consideration must always be the improvement of the educational program.

INTRASTAFF RELATIONSHIPS

Intrastaff relationships may be defined as any communication or contact between staff personnel. Such relationships begin with the first greeting exchanged and continue whenever there is an exchange of ideas, a conference, or a group meeting; in fact, they are part of all contacts between staff members that constantly occur in any school situation.

An important part of this relationship is that between the staff personnel and the school administrator. A healthy administrative–staff relationship is essential for promoting greater efficiency and providing optimum condi-

tions for constant improvement of the total educative process. Other benefits include the improved mental health of staff members, development of group loyalty, and more harmonious staff relations in general.

Basic Principles

Good staff relations are built upon the basic principles of human relations, which involve an understanding of human rights and recognition of the dignity and worth of each individual. It is not enough to have well-written philosophies of democratic practices; it is more important that democracy be really and sincerely practiced in an atmosphere of mutual trust and respect. In addition, the same rules of courtesy and etiquette should be observed as are habitual with all cultured people.

A direct relationship exists between good staff relations and the mental health of teachers. Mutuality and democratic cooperation are important and conducive to the health of all concerned. Sound mental health will be reflected in the work of the school. Because pupils serviced by intermediate schools are themselves going through a difficult period in their lives, it is more important than ever that their teachers be stable and emotionally well balanced.

Staff members of any school are engaged in an important social enterprise. A spirit of cordial cooperation should prevail so that each individual feels that he is part of the organization. The organization of the school should result from a mutuality of effort with provisions for the most effective participation of all concerned. Working groups must have real jobs to perform in all areas including planning, executing, and evaluating, and then must have freedom to operate within the established framework.

A real challenge exists for staff members in intermediate schools who have the task of sustaining a working organization within which they can operate and which will benefit pupils to the utmost. The traditional junior high school has not fulfilled the hopeful visions of its early proponents. It is important that both the junior high school and the newer forms of intermediate schools function effectively; this can be accomplished only through the cooperative efforts of all concerned.

The Role of the Principal

A school is a cooperative enterprise; it does not belong to the principal. It is the principal's responsibility to furnish positive leadership, which may be measured by the amount and quality of leadership he fosters in others. His leadership should help the group to develop a common purpose and should make it possible for each individual to have an opportunity to contribute to this purpose.

The principal sets an example for his faculty by his attitudes, personality, and techniques, which are an important influence in creating an atmosphere

within which his staff can operate. Greeting teachers in a friendly manner and making each feel important can do much to foster the desired social climate. Other considerations are giving credit where credit is due, letting each teacher know how he is getting along, and making the best use of each person's ability.

Another factor in creating a warm atmosphere for the staff is concern for their personal welfare. Thoughtfulness, consideration, and fairness are essential characteristics in a principal who must help develop these same characteristics in members of his staff. A principal must be able to meet the everyday problems of his staff, help them to consider several solutions, and find the right one. He must seek complete information about divisions that might exist among his staff, reasons for them, and ways in which such divisions may be removed.

Intrastaff Relationships in Intermediate Schools

An intermediate school unit presents many opportunities for developing good, positive intrastaff relationships. To function effectively, staff members must be involved in defining the problems inherent in any school organization, and, more specifically, problems peculiar to their own school unit resulting from the nature of its pupils and the uniqueness of its organizational pattern. Once the problems have been defined, facts and information pertaining to them must be gathered. Discussion and deliberation involving all staff members should follow. Differences of opinion are desirable and staff members should accept and value differences which, with adequate leadership, can result in more fruitful decisions.

Questions of curricular patterns, organization for teaching, use of recent innovations in teaching techniques and instructional materials, and student activity programs are a few areas that must be explored. How children learn most effectively at this stage of their development and what the school must do to provide an optimum environment for doing so are important enough concerns to warrant constant study. In-service training programs provide not only a means to better prepare staff members for their roles and the decisions they must make relative to the concerns just described, but also a means for staff and administration to work together toward a common cause.

It is highly possible that many junior high schools might have functioned more effectively if staff members were more actively involved in aiding their own professional growth. In all kinds of intermediate schools, the nature of the learners provides many opportunities for effective staff meetings. Teacher committees should plan staff meetings and make extensive use of panel discussions and open discussions. Topics selected by the staff may be used for committee reports. This kind of activity not only involves democratic procedures but also will result in a staff better equipped to deal

with students at this more or less difficult period in their growth and development.

Staff members should be involved in discussions of team teaching, block-time organization versus complete departmentalization, accelerated programs, television instruction, programmed learning materials, and so forth. Many districts are planning new facilities for intermediate units; staff members should be invited to participate in this kind of planning, too.

Through participation and cooperation, staff members will not only grow in professional competency but will develop an effective organization for constantly improving their relationships with one another.

TEACHER WELFARE

Those factors that affect teacher welfare and security also have an impact upon teaching effectiveness. A feeling of security and the knowledge that there are adequate provisions for sick leave and accidents help develop a feeling of wellbeing within the individual teacher. In addition to the areas just named can be added tenure regulations, provisions for retirement, and protection against personal liability damages.

Tenure

Tenure is a legal method for providing teachers with security in a position if his service is satisfactory. It was originally developed as a means of protecting the teacher from arbitrary dismissal and is regarded today as a means for guaranteeing academic freedom. State statutes define the requirements for obtaining tenure, the causes for which a teacher may be dismissed, and the procedures by which a teacher's contract may be terminated.

Tenure is an aid to securing efficient service from the teacher because it protects him from arbitrary action by the community and local school authorities. It also is most attractive to the teacher because he is protected against personal and organizational bias. His continuation of service depends upon the adequacy of his professional performance. Tenure helps provide teachers with the feeling of security that is so necessary for efficient service.

Motivation

Staff members in a school must have, among other things, a feeling of security and a sense of belonging. These are essential to efficient functioning in carrying out their duties. Pupils learn more easily when faculty morale is high; in fact, the interests of the school as a whole are best served when morale is high. When an individual has a "good feeling," he is more willing and dependable about performing his duties; in other words, he will be more highly motivated.

Being a staff member in an intermediate school unit should, in itself, be a motivating factor. The pupils provide a challenge to the truly conscientious educator who wishes to assist children during this period in their developmental growth. A school staff that is concerned about the uniqueness of the unit and the children it serves cannot help but be imbued with a high level of motivation.

The grade level team approach is a way of developing motivation toward the ultimate objective of helping children. As teachers work closely together in trying to determine what is best for the children with whom they all have a common association, it is natural that a contagious enthusiasm for their task should gradually develop.

Another basic factor in motivation is the very nature of the newer intermediate schools. Because they are somewhat experimental in grade organization and curriculum, they should provide a challenge to those associated with them. There are many opportunities for experimentation not only within the entire school organization but within various grade levels or subject matter areas. As an example, sixth-grade classes could be organized in three ways: self-contained, block-time, and departmentalized. By making each class as comparatively heterogeneous as possible, an individual school might obtain information that could be of great value in determining curricular organization. The enthusiasm of the teacher challenged by being part of an experimental situation would be an asset in any school organization.

Recognition

Another major element in teacher welfare is recognition of his services. It is normal that an individual should desire to be more than a face in the crowd. The monetary rewards of being moved to the next level on the salary scale or receiving extra pay for extra duties are not, in themselves, enough. Public recognition of a teacher's contribution can have more of an effect upon the morale and wellbeing of an individual than any monetary reward.

Recognition of the teacher's efforts may be made within his school by fellow staff members and administrators. The art teacher who opens his art room after school three days a week for interested students on a voluntary basis and spends time and effort in instructing them deserves a word of commendation from others. In situations where teachers go "beyond the call of duty" to help students, recognition not only by school personnel but also by the community is important.

Legal Considerations

Every teacher must feel that he is protected by the concept of academic freedom when he is functioning in the classroom. It is that freedom which

gives him the right to examine a question freely and to seek the truth. It does not grant him the right to attempt to convert his students to his viewpoint or to discuss in great depth an area in which he is not competent. Every teacher must feel free to conduct open discussion without fear of possible repercussions.

Another area that is becoming of increasing concern to teachers is that of tort liability. A tort can be defined as a violation of an individual's rights. If injury is caused to the property of another or to his person by one's behavior, a tort has been committed. Because of the clumsiness that is characteristic of pupils in the preadolescent and adolescent stages and their increasing participation in various kinds of school-sponsored activities, particularly athletics, the possibility of accidents and liability suits is ever-present. During the school day, teachers are individually liable for injuries to pupils that are brought about by the teacher's own conduct. The important and deciding factor is whether or not the teacher was guilty of negligent conduct. The financial liability of teachers in tort cases varies from state to state. Legal fees may or may not be paid by the board of education. Chamberlain and Kindred make the following suggestions:

> Unless local districts are authorized under law to buy liability insurance for their employees, teachers should take steps to protect themselves from the financial burdens that accompany civil suits for money damages. They can petition their local board of education to provide legal counsel when they are charged with responsibility for injuries to pupils that occur during the performance of their duties. As an alternative, they can request local and state education associations to furnish legal aid when action is brought against them. Still better, these associations can be requested to arrange for their members group liability insurance that may be purchased at fairly reasonable rates. And finally, they can always buy insurance protection individually to cover damages that may be awarded by courts to pupils who are injured while under their care.[6]

Legally, teachers stand in loco parentis in their relations with pupils. They may make and enforce rules and regulations that benefit the pupil and help to establish and maintain good order in the school as long as they do not violate the rules and regulations of the board of education or the laws of the state. In a few states, the statutes do permit corporal punishment, but in most it is specifically prohibited. Where it is permitted, local boards of education may have a rule against it by which teachers must abide. Also, where it is permitted, teachers must abide by certain principles established by the courts. These general principles are:

[6] Leo M. Chamberlain and Leslie W. Kindred, *The Teacher and School Organization* (4th ed.) (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1966), p. 249. Reprinted by permission of Prentice-Hall, Inc.

(1) The teacher must act without anger or malice toward the child, (2) the punishment must be for the violation of a reasonable rule, (3) it must be administered by an instrument that will not do permanent harm or injury to the pupil, (4) the punishment must be in proportion to the nature of the offense, (5) consideration must be shown for the age, sex, and physical condition of the pupil, (6) the pupil must be told the reasons for the punishment, and (7) the punishment must be given in a kind and reasonable manner.[7]

Workmen's compensation benefits employees who are injured in the performance of their duties. Compensation is provided for hospital, medical, and surgical expenses in addition to wages lost during the period of disability. In many states, teachers may obtain such benefits and, if nothing else, the existence of such assistance is important to a teacher's welfare and, ultimately, to his morale.

By virtue of their contracts, teachers are expected to carry out the rules and regulations of the board of education and to perform all duties prescribed by the laws of the state. The contract contains, as a rule, the names of the parties, salary to be paid, terms of the contract, grade or subjects to be taught, and general requirements teachers are expected to uphold in the course of their employment. If it is necessary to leave the employment of a school district before the contract expires, the teacher must abide by contractual regulations in giving notice (usually sixty days before leaving). It is important that the board of education also require teachers to observe the stated period for such notice.

Working Conditions

Adequate rest room for the faculty cannot be overlooked. Cleanliness, attractiveness, and privacy are important considerations. It should not be necessary for the staff to use an area labeled "Teachers" that has been set aside in student rest rooms, as has been the practice in some of the older school buildings. In addition, an attractive faculty room, also with privacy, is needed to serve as a place where teachers may relax for a few minutes and perhaps chat with fellow staff members in comfort to relieve some of the tensions that often build up, even in the course of a normal school day.

Teachers should never be expected to eat lunch in the same dining area as students. An attractive, well-lighted, and, above all, quiet dining room should be available for their use in order to provide another opportunity for freedom from the normal noise and activity of the average school situation.

All staff members are entitled to a completely free lunch period, one in which they have no duties at all. Teachers should not be expected to

[7] *Ibid.,* pp. 244–45.

use part of their lunch period for a conference with the principal or for reporting to the office at the request of a clerk who needs some bit of information. Above all, they should not be expected to proctor students while eating their own lunch. When teachers are scheduled for cafeteria duty, it is essential that they also be scheduled for a duty-free lunch period of their own that is reasonably close to the noon hour.

In many situations, the average teaching day is not as wearing on an individual as the unnecessary disturbances that interfere with classroom procedure. A classic example is the constant interruption of class for minor announcements carried on the "intercom" system. In most instances, once a day is sufficient for any necessary announcements. In addition, teachers should not be interrupted by members of the clerical staff seeking minor bits and pieces of information that could have been obtained either before or after school.

All individuals such as salesmen, parents, and other members of the community who desire to speak individually with a teacher should expect to do so only at the teacher's convenience and when he is not teaching a class. In short, any interruption to the teacher's major responsibility of the classroom is to be avoided, not only to provide a better teaching–learning situation but also to provide a calm atmosphere in which the teacher can operate undisturbed.

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20

School Plant Designs

Not until a school has been defined—its philosophy, curriculum, teaching methods, administrative and supervisory policies, and scheduling—can a design for it be discussed. A design for a school must be woven around every conceivable factor that may affect the learner or his teachers. The above list by no means exhausts those things to be considered. The other half of the spectrum demands that a serious study be given to the total school environment—visual, thermal, and sonic—for each affects the student as well as the staff. Important, too, are factors that can only be controlled by well-planned construction, such as provisions for internal flexibility and relationships of one interior space to another. Each of these can affect the activities that can take place in a school and seriously affect what the student can do and what can be done for the student. It is the purpose of this chapter to discuss desirable physical components of intermediate schools. It is hoped that the guidelines and specifications presented will prove useful and applicable to the reader in his own situation.

IMPORTANCE OF THE CURRICULUM AND INSTRUCTION IN PLANNING SCHOOL BUILDINGS

Just as there has been a reversal in the assignment of the responsibility for planning a school house from the architect to the educator, so, too, has there been a reversal in the starting point for the planning.

Until as recently as ten years ago, the starting point, the basis, for the architectural specifications and blueprints for a school house was consideration of the factors surrounding construction. In other words, the determinants were construction methods. The curriculum and the methods of

instruction had to be molded to fit a building. It must be realized, as it is increasingly throughout the nation, that a school structure should be molded around a predetermined and predefined curriculum and method or methods of instruction.

To illustrate this idea, a discussion of a hypothetical case seems appropriate. Assume that a staff is in the process of planning a new school building. Further assume that for many years the instructional method has centered around a conventional, lockstep, thirty-student-per-class, teacher-oriented situation but that the staff feels, after serious study, that it would be most advantageous to adopt a nongraded approach to teaching. The best estimate is that the adjustment will begin within three years after the opening of the school.

What is obvious is that the new school in question must be capable of housing the conventional program but be adaptable to housing the nongraded organization, which has space demands very different from a conventional program of education. An inflexible building would not permit this to occur. The whole question of flexibility will be considered later in this chapter.

In no way should a building deter or prohibit the conduct of activities necessary for the successful operation of any planned educational program.

ALL THE FACTS ARE NEEDED

A multitude of facts must be gathered as still another basis for sound planning. Those discussed here will not be exhaustive for each local case but are intended to be representative of the types of information that must be collected.

Of prime importance, of course, is the question of student population. Although it is most common to administratively decide that a structure will house a given number of students, this procedure is not always feasible. Sudden population growth may make it mandatory to abandon any preconceived limit of students to be accommodated and to proceed with plans for a school to house an upwardly adjusted figure. Many administrators in urban areas are faced with this possibility because of both increased population and the necessity to integrate the school population, assuming that the probability of affecting integration is greater if a greater number of students are housed in a building. Suburban administrators, too, face the same problem because of their burgeoning student population and the pressures to regionalize.

Not only present but projected student population is a determining factor in school plant planning. In many instances, the decision to construct an expandable physical plant has eliminated less costly future construction as well as embarrassment over not being prepared for increased enrollment.

In addition to the curricular and instructional decisions discussed earlier, the cultural, social, and physical needs and interests of the students to be served are important factors in planning what a school house shall include. Knowledge of these facts will make it easier to plan the spaces necessary to accommodate the activities that fill these needs and interests. The differences between urban and suburban students or between nondisadvantaged and disadvantaged students indicate that there are really no common facilities for these purposes but that planning must be renewed for each separate case.

Certainly pertinent state regulations must be considered. State codes are devoted to nearly all aspects of a school building, from classroom size to required square footage of window space, air conditioning, heating, and many other things. For example, it would do little good to plan a window-less school if state regulations required that window space be equal to 20 per cent the floor space. Of course, variances can always be applied for. But even this fact must be taken into consideration.

The size of the site on which the school under planning will be constructed will affect the planning for it. Urban school districts faced with limited acreage for sites will invariably plan a different building than will a school district with unlimited site acreage. The types of instructional spaces required may very well be identical, but the size of the spaces may differ, as will the space relationships that can be established for them. For example, a school that must be multistoried because of site limitations will necessarily weave a different plan for an instructional materials center into the total plan than will a school that is being planned for single-story construction on an unlimited site.

Now all of the facts needed to intelligently plan a building are not listed here. However, the major facts are included and it should be realized that the myriad of facts applicable to specific cases can be pinpointed.

THE CONTROLLED ENVIRONMENT

A controlled physical environment aids learning. Far too long have office, plant, industrial, and experimental edifices been constructed with controlled environments while schoolmen stood uninformed or with their hands tied and watched school buildings erected with little attention given to the environment. The last few years have witnessed a trend away from this condition and much has been done to provide in schools a controlled thermal, acoustical, and visual environment.

The Thermal Environment

In a study conducted at the School Planning Laboratory at the University of Tennessee, it was reported that the optimum air temperature for

most classroom activity can be found within the range of 70°F. to 75°F. An air temperature slightly below 70°F. is needed for more strenuous activities such as physical education. The recommended temperatures, it was further stated, should not vary more than ±2°F.[1] Many other studies stress the importance of these optimum temperatures—studies done on college campuses, by psychologists with grants, by commercial firms, and by governmental agencies. The exact degree of temperature recommended as a result of these studies may vary slightly, but they all stress the value of controlling the temperature. Why all of this concern? The key appears to be in the positive change in the performance and attitude (which psychologists tell us affects learning) of students of all ages. Three studies are reported here that are indicative of the findings of recent research. They by no means exhaust the number of studies available on the subject.

In 1955, a group of United States Naval trainees were selected for study.[2] Two matched groups of trainees studying electronics were chosen. One group studied in an air-conditioned classroom building where the mean afternoon temperature was 71.3°F. The other group studied in a non-air-conditioned structure where the mean afternoon temperature was 82.0°F., but where the temperature soared as high as 92.5°F. The reader will take special notice that the temperature in the air-conditioned building was held constant. The results proved interesting.

While the differences in grade point averages were not tremendously significant, the edge did belong to the group who had studied under thermally controlled conditions. Other results also proved interesting and significant. Eighty-six per cent of the air-conditioned subjects said that they were comfortable and pleased with their surroundings, while 74 per cent of the non-air-conditioned subjects said that they were uncomfortably hot. Attitudes toward an environment enter into the picture here and should be of interest to a superintendent or principal who has a high dropout rate or problem with absenteeism. Many school officials have reported positive changes with these two problems although few, if any, actual pieces of research have been written. Discussions with administrators who have experienced the benefits of thermally controlled schools may prove fruitful for the administrator whose school district is contemplating such a step.

Another study of interest completed and reported on in 1960 also had as subjects military students.[3] The grades of the students were analyzed and grades earned during winter months, when classrooms were properly heated, were compared with grades for summer months, when classrooms

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[1] Homer F. Mincy, "A Study of Factors Involved in Establishing a Satisfactory Thermal Environment in the Classroom" (Doctoral dissertation, The University of Tennessee, Knoxville, 1961), pp. 95–96.

[2] George D. Mayer, "Effect of Temperature Upon Technical Training," *Journal of Applied Psychology*, **39** (1955), 244–49.

[3] James A. Nolan, "Influence of Classroom Temperature on Academic Learning," *Automated Teaching Bulletin*, **1** (Summer, 1960).

were overheated. Air conditioning or any mechanical means of controlling the thermal environment are not at question in this case. The only factor under consideration was the effect of temperature on learning. In fact, every effort was made to control every variable except temperature—the quality of instruction, visual aids, lesson plans, available student literature, teaching methods, and curricular objectives.

The data, in grade point averages, led the author to conclude that students earned higher academic grades during the winter months, when the classrooms were not overheated, than in the summer months.

The conclusions of another study completed in 1960 contribute to an understanding of the need for providing constant, optimum temperatures under which to study.[4]

The first conclusion drawn was that a controlled thermal environment, in this instance by air conditioning, seemed to improve the teacher's attitude and work pattern. This, said the reporter, was principally because of reduced fatigue and greater physical flexibility. Second, it was concluded that student performance seemed to improve, mainly because an environment was provided in which it was easier to concentrate. This conclusion was based upon both a tested greater learning facility and an observed more effective use of study time.

Be aware, then, that the evidence to date does indicate that the thermal environment in which students are placed directly affects their performance and attitude in a positive way. Be reminded, too, that much more evidence is available in other completed pieces of research.

As was briefly alluded to in the discussion of the Mincy study (page 447), each instructional space has its own temperature requirements. That is, optimum thermal conditions are created when the temperature of an area falls in a specific range. The criteria of sole importance is the activity that will take place in the space. It is reasonable that an area in which a great deal of physical activity will occur, such as physical education or vocational education, requires a lower temperature to reach the desired optimum than an instructional space where the activity is primarily sedentary, such as an English classroom. Children's bodies produce heat in direct proportion to the amount of physical activity. Through regular classroom activity alone, each child produces from 250 to 400 B.T.U.'s of heat. Summed up, this means that, in most parts of the United States, pupils will produce one-third of the heat needed for a comfortable classroom environment during most of the school year.[5] This fact has meaning for the planning not only of the thermal environment of each school building, but of each space in the building. And it should cause architects and

[4] Eva G. McDonald, "Effect of School Environment on Teacher and Student Performance," *Air-Conditioning, Heating and Ventilating*, 57 (1960), 78–79.

[5] Mincy, *op. cit.*, pp. 76–78.

engineers to investigate closely the requirements of the heating and cooling plants of every school building. In many cases, heating plants especially have been overdesigned, which has contributed to overheated conditions in classrooms even during the winter.

As stated previously, there is no agreement on the exact temperature requirements of each instructional space. A survey of the literature reveals that a range of 65°F. to 68°F. for high-activity areas and 72°F. to 75°F. for regular teaching areas are the recommended optimum temperatures. Of course, in all cases adjustments should be made in relation to the ongoing activity within the space.

There should always be some means of controlling the thermal environment of each space in a school house. There is much discussion among engineers, educators, school-plant planning specialists, and manufacturers as to which system—central air conditioning or the unit system—is better. Although it is frequently pointed out that central air-conditioning systems may require less maintenance, the unit system is generally favored for ventilation as well as for air conditioning—and for several reasons.

It is said that with proper building design, the unit system requires less piping, less water, and smaller pumps. Because of individual room control, each room can be cooled and heated to its own requirements. The shift from cooling to heating can be made more quickly with the unit system. It is also pointed out that the unit system requires less building space and that installation costs are significantly reduced. Preliminary results of studies at the School Planning Laboratory of the University of Tennessee, although as yet incomplete, indicate that these arguments are true. The School Planning Laboratory is the Southeastern Regional Center for the Educational Facilities Laboratories, Inc., of New York City.

Many people, including educators from all levels, still doubt the advisability of thermal control or, in plainer terms, of air conditioning—even in the face of the evidence indicative of increased efficiency in the teaching–learning process. Taxpayers, of course, often attack it as an unnecessary frill. There is one more factor involved which—purely on a cost factor basis—favors the air-conditioned structure. There is greater utilization of interior space in such a school house, and this bears a relationship to the total cost of the building. The total cost of buildings can be even less with air conditioning. Interior spaces that heretofore were unusable—especially for instructional spaces—can now be used for a variety of purposes. The new junior high school of the Clarksville-Montgomery County, Tennessee, schools (Figure 20–1) floor plan of which is pictured—graphically represents this concept. The school—totally air conditioned—was designed by John Shaver & Company of Salina, Kansas. The floor plan shown is used through the courtesy of the Clarksville-Montgomery School System, William H. Sanford, Director.
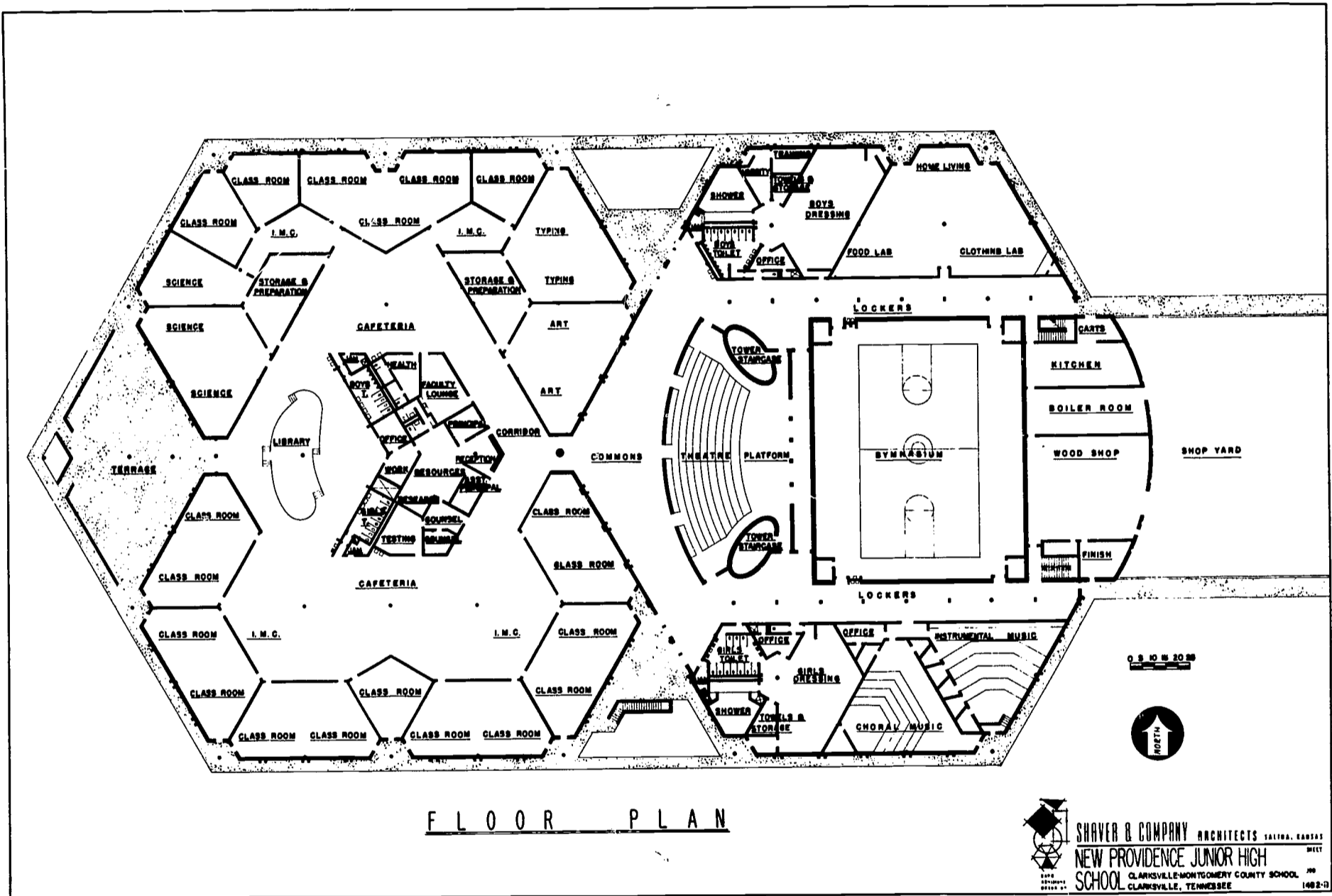
FLOOR PLAN

SHAVER & COMPANY ARCHITECTS SALINA, KANSAS
NEW PROVIDENCE JUNIOR HIGH
SCHOOL CLARKSVILLE-MONTGOMERY COUNTY SCHOOL
CLARKSVILLE, TENNESSEE 1462-11

Fig. 20–1. Floor plan of Clarksville-Montgomery Junior High School

The Visual Environment

The goal in school lighting is to produce a visual environment in which seeing may be accomplished efficiently and without hindrance or distraction from any part of the luminous elements of that environment. Adequate levels of illumination with properly balanced brightness help the educational process by making seeing quicker, surer, and easier. Good light aids impaired vision, reduces visual fatigue, and helps create a cheerful and pleasant environment.[6] All of these factors directly affect the teaching–learning process.

Lighting cannot be considered separately from the color decoration of a space, however, since color is the companion factor in the visual environment. To be effective, the total decoration of the space must be integrated or unified. The brightness of both color and lighting must be planned as a unit. There must be no contrast between lighting and color that will interfere with the central seeing task being performed.[7]

There are some fundamental aspects of each, however, that can best be treated apart from each other. Artificial lighting, considered by most experts to be superior to natural light because of the difficulty in controlling the latter, is created through four major types of lighting fixtures. The descriptions of each follow.[8]

1. Direct lighting—the light from the source is unshielded. The type of fixture utilized has a   high surface brightness and produces glare and shadows.
2. Semidirect lighting—this type of lighting is produced by fixtures that have exposed tubes but are surrounded by a translucent shield open at the bottom, allowing 60 to 90 per cent of the light to be reflected downward and from 10 to 40 per cent upward.
3. General diffusing—this fixture has a light tube surrounded by a shield. It directs from 40 to 60 per cent of its light downward. The ceiling reflects and diffuses the light that strikes it and thus comes nearer to meeting the brightness standards than do any of the two above types.
4. Indirect lighting—this type of lighting is produced by a fixture that reflects from 90 to 100 per cent of the light to the ceiling. The ceiling reflects and distributes the light and removes glare.

Although all four types of lighting are used in schools, the semidirect and general diffusing types appear to have been used most often in recent

6 K. C. Welch, "Brightness Relationships in Classrooms," *Progressive Architecture,* September, 1958, p. 160.
7 Darel Boyd Harmon, *The Co-ordinated Classroom* (Grand Rapids, Mich.: The American Seating Company, 1951), p. 37.
8 *Classroom Environment* (Knoxville, Tenn.: College of Education, University of Tennessee), p. 34 (mimeographed).

years. Direct lighting is rarely if ever installed in modern schools because of its difficulty of distribution and glare-producing effects. In addition, because of its direct exposure, it is the worst offender of lighting types in the battle against heat gain, which is one more contributor to overheated classrooms. After many years of acceptance in office buildings, department stores, and other commercial houses, the indirect type of lighting is being used increasingly in schools.

The administrator and staff planning a school should be aware of the types of lighting and the basic technical aspects as some bases on which to judge—to approve or disapprove—the recommendations of the architect. This is another reason for worthwhile in-service meetings with the planning staff.

Many factors should be considered, but the six most prominent ones are light intensity, brightness, heat gain (alluded to above), light distribution, glare, and asthetics.

The intensity of light is the amount of light measured in footcandles. Light intensity should always be considered in relation to the task at hand. By brightness is meant the actual amount of light emitted by or reflected from a surface. The eye can adjust to light intensity but not to several levels of brightness. Hence, light distribution, the even spread of light to alleviate shadows and "hot spots," is important to sight. Glare, produced by an uneven lighting field containing several levels of brightness, causes "hot spots" to which the eye has trouble adjusting. Eye fatigue is most often the result. Of course, the wall finish and color play a part in the problem of glare. Just as lighting and color cannot be considered separately when planning the visual environment of a learning space, none of the factors of lighting can be considered independently.

The remaining two factors do not directly affect the seeing task, but they should be given consideration. First, lighting is one of the sources of heat in a classroom in addition to that generated by the heat plant. There appears to be a positive relationship between the directness of lighting and heat gain, which is one of the main arguments against using direct lighting. As for asthetics, it seems that school architects and educators are at last allowing this factor to enter into the choice of lighting types. A warm, pleasant, well-lighted, and well-decorated area can contribute to a positive attitude about a learning space. There is import to this when students, regardless of age, are housed in a school building.

All of these factors must be considered in the selection of natural or artificial lighting for a space. As can be gathered from the discussion, properly planned artificial lighting is much easier to control than natural lighting. Unless natural light is properly controlled (and few effective means are available to do so), the problems of intensity, brightness, distribution, glare, and heat gain will be acute.

The same question that was posed concerning the thermal environment

now must be posed about the visual environment. Why all the concern? The answer is the same. The teaching–learning process, according to the available evidence, is affected. The following reports are indicative of this fact.

A study by McCormick and Niven[9] examined the effects of three intensities of illumination upon a motor task that required visual control. The task given to the subjects was to insert a stylus into three holes that were uncovered by a rotating shutter. The mean number of errors, scored when the stylus missed the hole, were: at 5 footcandles, 31.56; at 50 footcandles, 25.26; and at 150 footcandles, 23.0. Notice that the decrease in errors from 5 to 50 footcandles is much greater than the decrease from 50 to 150 footcandles. One thing is clear—the performance of the subjects depended upon the control of the visual environment. It is possible to assume, too, that the optimum level of intensity is 50 footcandles or slightly higher.

Reporting on medical findings concerning the effect of the visual environment on the seeing task, Webb reported:

> *Eyes are more comfortable when their direction of gaze changes frequently. . . . If the gaze falls upon a different light intensity each time the eye shifts, muscular action takes place to move the eyeballs and to adjust the iris. When these muscles get tired, the tiredness is not usually felt in the eyes since eye fatigue communicates itself to other parts of the body. A person suffering from eye fatigue feels tired all over—has headaches, is nervous, has digestive upsets. Because of their effect upon learning and the health of the child these are reasons plenty for the elimination of brightness contrasts in school environment. . . .*[10]

Color, the other half of the visual field, is as important as lighting. Studies have been conducted by such commercial giants as E. I. Du Pont de Nemours and Co., Inc. and the Pittsburgh Paint Company. Evidence indicates that colors affect the emotions and perceptions of individuals and that individuals do indeed have color preferences.

In a report of the Du Pont Company,[11] some very specific findings were offered. The warmest, most stimulating, and least tranquil colors, it reported, are red, orange, and yellow. By contrast, the coolest, least exciting, and most subduing colors are green, blue, and violet. The tints from any of these colors affect persons in a space in the same ways but to a lesser degree. For example, tints from warm colors, such as peach, buff, beige,

9 E. J. McCormick and J. R. Niven, "The Effect of Varying Intensities of Illumination upon Performance of a Motor Task," *Journal of Applied Psychology,* 36 (1952), 193–95.

10 H. V. Webb, "Light and Color Aids to Learning," *The American School Board Journal,* August, 1957, pp. 42–44.

11 *Emotional Reaction to Color,* Color Conditioning Report No. 3 (Wilmington, Del.: E. I. Du Pont de Nemours and Co., Inc.).

cream, and ivory, are said to be moderately warm, stimulating, and tranquil. Pale blues and violets are suppressing, but not to the extent of the pure blues and violets. Mixtures of greens, yellows, and blues were reported as tranquil. The cooler, more tranquil colors were defined as restful and as creating a nondistracting atmosphere.

Armed with this sort of knowledge, school planners and architects are able to select colors for learning spaces on the basis of the activity that will take place in those spaces.

The important lesson for school planners and architects from this research is that each space has its own color requirement as well as a temperature requirement.
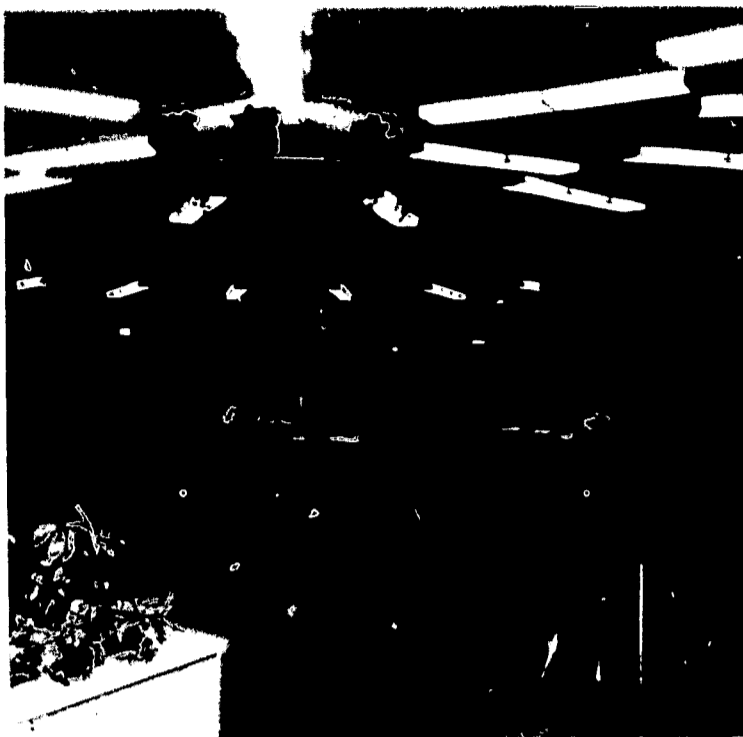

Fig. 20-2. Seminar room

Fig. 20-3. Instructional materials center in use at Greeneville, Tennessee

A student's comfort in a space will contribute to his attitude toward that space which will, in turn, affect his performance in his school activities. In addition to color's role as a stimulus, it has another bearing on the learning space in that it can affect a person's perceptions of size and dimension. In another statement of research by Du Pont,[12] it was reported that rooms or spaces can be made to seem to expand or contract in accordance with the brightness of the colors used. Warm and dark colors, which *seem* brighter to the eye, make a space appear smaller. Cool and light colors, which seem less bright to the eye, make a space appear larger.

There is much significance in these facts for school planners and architects, especially in the light of the new curriculums which are demanding new kinds of spaces in modern schools. Seminar rooms (Figure 20-2), as an example, can and should have proper color schemes selected for them. But, as in all cases, the individual space must be considered as a separate entity.

It is important enough to repeat that lighting and color must not be considered independently but rather as a single concept when planning the visual environment of a school building. Limitless amounts of published material are available, as are expert consultants in the field. A well-planned visual environment can become operationally functional with the use of all resources available. The instructional materials center of the Greeneville, Tennessee Junior High School, (Figure 20-3), is a good example of the results of planning for a balanced visual environment.

[12] *Size, Dimension and Weight in Color,* Color Conditioning Report No. 9 (Wilmington, Del.: E. I. Du Pont de Nemours and Co., Inc.).

The Acoustical Environment

The goal of a well-planned acoustical environment, like that for the thermal and visual environments, is to provide a total environment in each individual space commensurate with the activities that will be conducted there. The demands for acoustical control vary from space to space.

The question has been asked earlier of the thermal environment, "Why all of the concern?" The same question was posed concerning the visual environment. It is just as appropriate to ask it of the acoustical environment. The answer is the same—the teaching–learning process is at stake. Again, research provides the evidence.

Three groups of male undergraduate students were the subjects of a 1959 study reported by Jerison.[13] The groups were subjected to noise levels from 111.5 decibels to 114 decibels and were required to do tedious counting tasks by monitoring clocks and flashing lights. The tasks were continued through intermittent periods of quiet. The results indicated changes in the alertness of the subjects after one and one-half hours of noise but no change during the quiet time. The subjects' judgments were distorted by the noise. The author commented that the detrimental effect came through the stress caused by the noise. These results are of significance when planning the environment of a teaching space and when determining the relationship of one space to another.

Another study, reported in 1958 by Broadbent,[14] indicates similar effects. Three groups, engaged in a subtraction task involving a considerable immediate memory load, were exposed to differing levels of noise. One group worked at a 70-decibel level for two sessions, one at 100 decibels in one session and in quiet during the next session, and a third reversed the noise pattern of the second group.

In the first session, the 100-decibel group slowed down at the problem-solving task. This fact remained true in the second session except that the group exposed to 100 decibels in the first session also slowed down in the second session. The author concluded that intellectual work as well as simple sensory tasks must be regarded as endangered by noise.

These two reports establish the necessity of planning very seriously the acoustical environment of each and every school space. For even though, in most cases, schools do not have to contend with noise in the 150-decibel range, quantities of sound up to 100 decibels must be dealt with. If not controlled, such noise levels can neutralize the learning potentialities of otherwise well-planned environments. Internal noise can be made innocuous in

[13] H. J. Jerison, "Effects of Noise on Human Performance," *Journal of Applied Psychology*, 43 (1959), 96–101.
[14] D. E. Broadbent, "Effects of Noise on an Intellectual Task," *Journal of the Acoustical Society of America*, 30: (1958), 824–27.

several ways. Architectural plans, carefully developed from good educational specifications, can adequately establish control.[15]

One of the easiest ways, because it can be done before construction begins, is to incorporate into the architectural plans an area for the academic or "quiet" teaching spaces and one for the vocational or "noisy" teaching spaces, which are kept separate from each other. In most cases, the two areas are separated by common or service areas. The floor plan of the J. B. Brown Junior High School (Figure 20–4), graphically represents this concept.

Notice that the spaces in the "buffer" area are the kinds that serve several functions. The administration and special service areas, which are visited often by the public, are included. Student and faculty service areas are very frequently located within this commons area. By the very nature of the activities that take place within them, these spaces can serve both quiet and noisy activities, and architects have found them to be convenient in dividing a structure. In addition, central location is a definite advantage because the spaces themselves are utilized by all personnel in the building.

The use of carpeting, which is both asthetically advantageous and functional, is gaining momentum as an effective means of sound control. Many efficiency studies that have been done in industry indicate increased production in areas acoustically controlled with carpeting. The latest of the studies conducted in schools, by Conrad and Gibbons,[16] demonstrated that the acoustical environment of a classroom is improved through the use of carpeting. Reverberation time was reduced and low-frequency sounds were lessened, but speech frequencies were not detrimentally affected. On the question of the effect on learning, the authors reported:

> *So if it is assumed that learning is facilitated in an environment where communication is facilitated and undesirable sounds reduced, carpeting can be said to have a positive effect on the learning environment.*[17]

Based upon findings discussed earlier relative to noise and learning, carpeting indeed appears to be a trend in acoustical control that will continue to grow in use.

The relative merits of glass have been discussed in depth in recent years. In many areas of the nation glass is being used less and less for exterior window. Many of the significant schools of today are relatively windowless, while a growing number are completely windowless. Open windows, of course, permit outside noise to filter into the classroom and

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[15] John W. Gilliland, "Sound: Its Effects on Teaching and Learning," *School Shop,* (April, 1963), pp. 41–42, 80.

[16] M. J. Conrad and Neil L. Gibbons, *Carpeting and Learning* (Columbus, Ohio: Bureau of Educational Research and Service, College of Education, The Ohio State University, 1963).
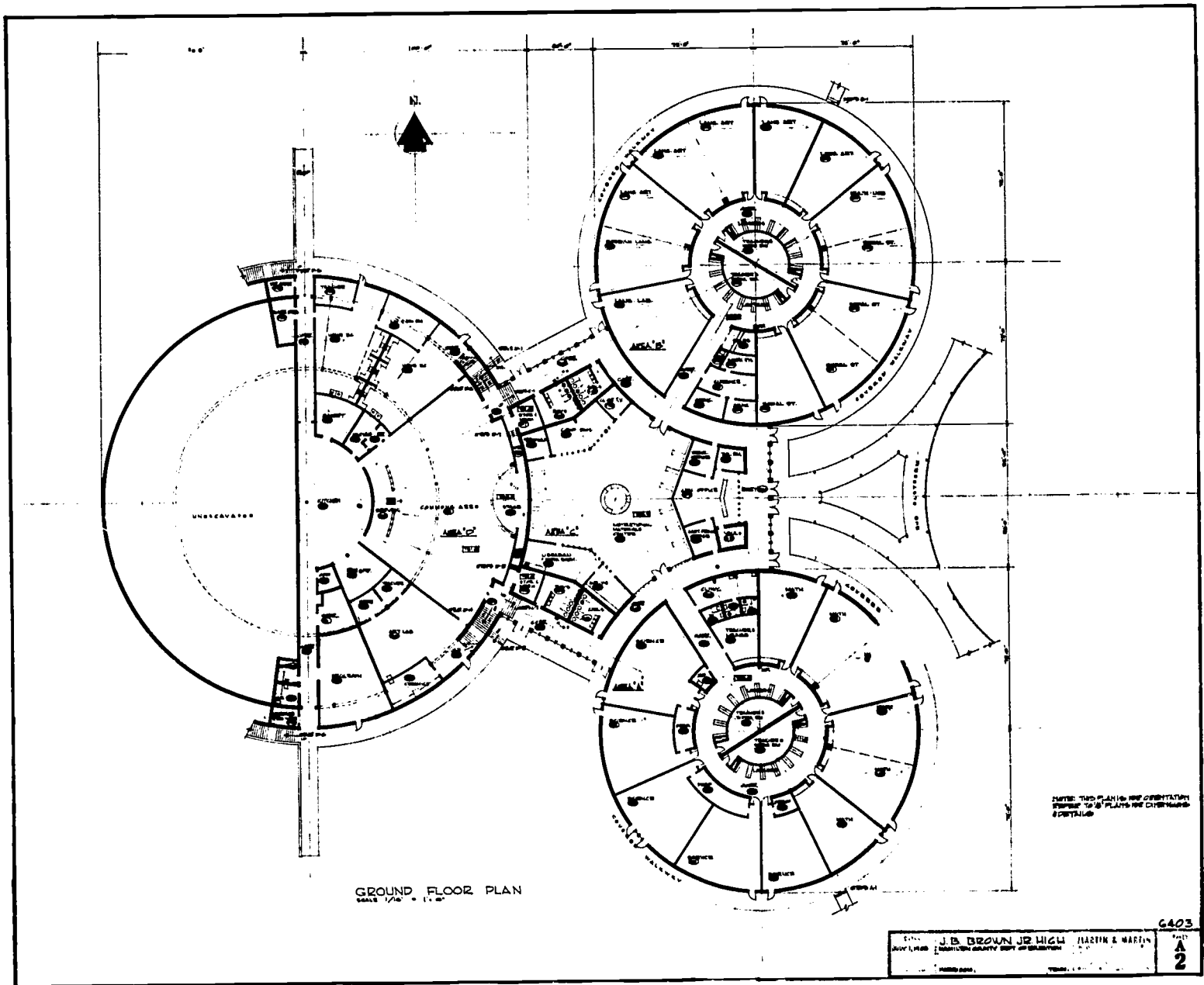
[17] *Ibid.,* p. 10.

Fig. 20–4. Floor plan of the J. B. Brown Junior High School

interfere with the teaching–learning activities. A reduction in the square footage of glass, however, also allows somewhat better control of the thermal and visual environmental factors. Properly designed, a windowless or near-windowless school is an attractive structure and is undeserving of the term "warehouse," which critics of the windowless school frequently use. J. B. Brown Junior High School in Hamilton County, Tennessee (Figure 20–5), is an example.
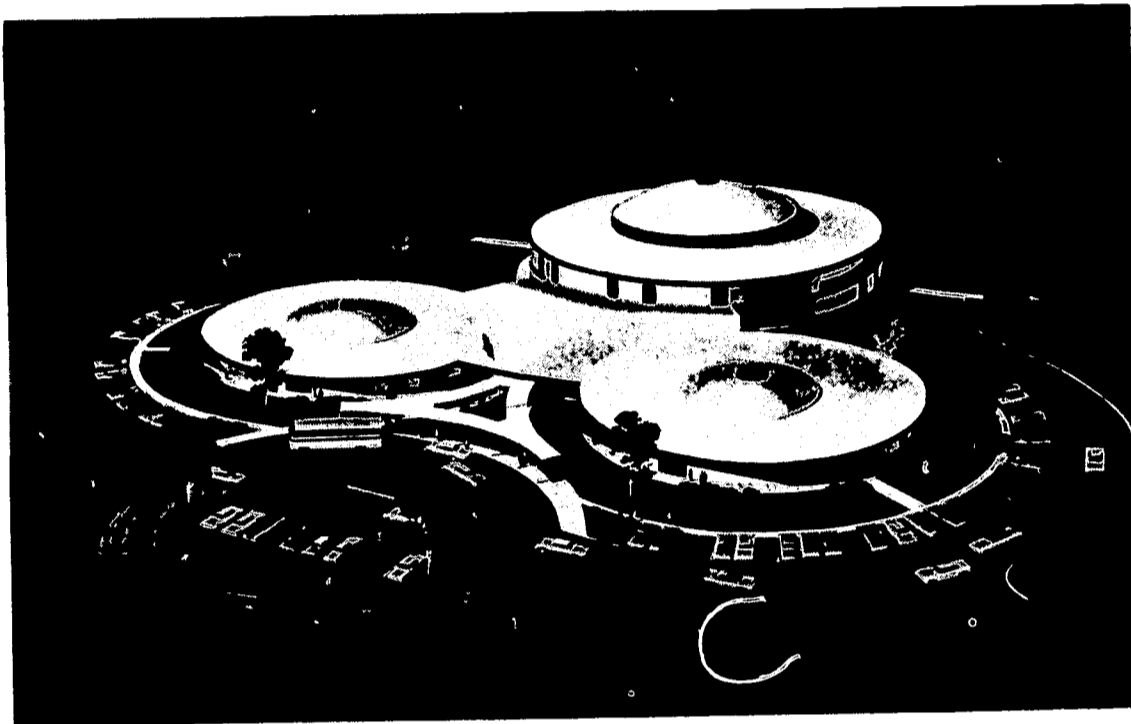
Fig. 20–5. J. B. Brown Junior High School, an example of the aesthetic appearance of a windowless school (*Used by permission of the Hamilton County, Tennessee Department of Education, and Martin & Martin, Architects, Chattanooga, Tennessee*)

Still very much on the scene, however, glass is now manufactured in a tinted safety plate. This move by major manufacturers has helped to overcome objections to schools where windows are an integral part of the architectural design. But the controversy over how much glass to use—or whether a school should be windowless—continues.

Imaginative architecture and interior decoration have created interior means, both decorative and functional, of providing the optimum acoustical environment. Sound baffles, from sound-absorptive materials, are manufactured in attractive shapes and are deployed in patterns that are pleasingly decorative. This is a relatively inexpensive method. Ceiling tiles, certainly not new, continue in use but in much more attractive forms. Carpeting, discussed earlier, fits into this category of attractice means of acoustical control. The only limits to the kinds of aids to acoustical control possible

are the imagination and ingenuity of the architect, designer, and manufacturer.

FLEXIBILITY

The concept has been advanced earlier in this chapter that what is to be taught in a school house and how it is to be taught should be the most influential factors in establishing the total design of a structure. Curriculums and instructional methods do change, however, and at a rate faster than in past years. The gap in years from idea to classroom has been much reduced.

The impetus for change usually comes from two forces. First, new and improved techniques are theorized, tested in an experimental setting, and, if judged worthwhile, recommended for use where applicable. Most school districts are not in the habit of resisting this type of change. Second, adjustments are made in each local situation to satisfy the needs of the student body as well as to take advantage of the strengths of professional personnel. Just as common are the adjustments to fit local situations of the techniques developed experimentally.

The whole concept of change, short or long range, has meaning for school-plant planning and design. A building must be capable of housing a variety of current educational programs in order to provide facilities for necessary immediate adjustments. Also, the same building should be capable of housing programs whose essence is not yet predictable. When it is realized that the desired life span of a school house is at least sixty years, the concept of change—and of housing that change—becomes even more impressive. In a word, a school building must be flexible.

A prime method of providing this desired flexibility—misused to the extent that it has become a deterrent to sound planning and building utilization—is the multi-use of spaces. To expect an instructional space to be capable of housing too many different instructional activities has most often resulted in an unsatisfactory use of the space. For example, it would be unwise to assume that a single space could house industrial arts activities as well as musical activities. On the other hand, multi-use of spaces for activities that complement each other is desirable. Industrial arts areas have been and are increasingly being utilized successfully as science teaching areas. Fine arts and industrial arts areas also offer opportunities for sound multi-use of spaces, as in the unified arts area in the floor plan Figure 20–6, which shows the Tower Heights Middle School in Centerville, Ohio. A truly integrated program of arts has been planned by the Washington Township School District, owners of the building.

A simple cost analysis shows the desirability of properly planned multi-use of space. When a space can be utilized for two purposes, it becomes

TOWER HEIGHTS MIDDLE SCHOOL
95 North Johanna Dr.
Centerville, Ohio
Washington Twp. Board of Education

TEACHING TEAMS

SEMINARS

SMALL GROUPS

LEARNING CENTER

UNIFIED ARTS

ADMINISTRATION

TOILETS

INSTRUCTIONAL MATERIALS CENTER

GYMNASIUM

LOCKERS

LEARNING CENTER

SEMINARS
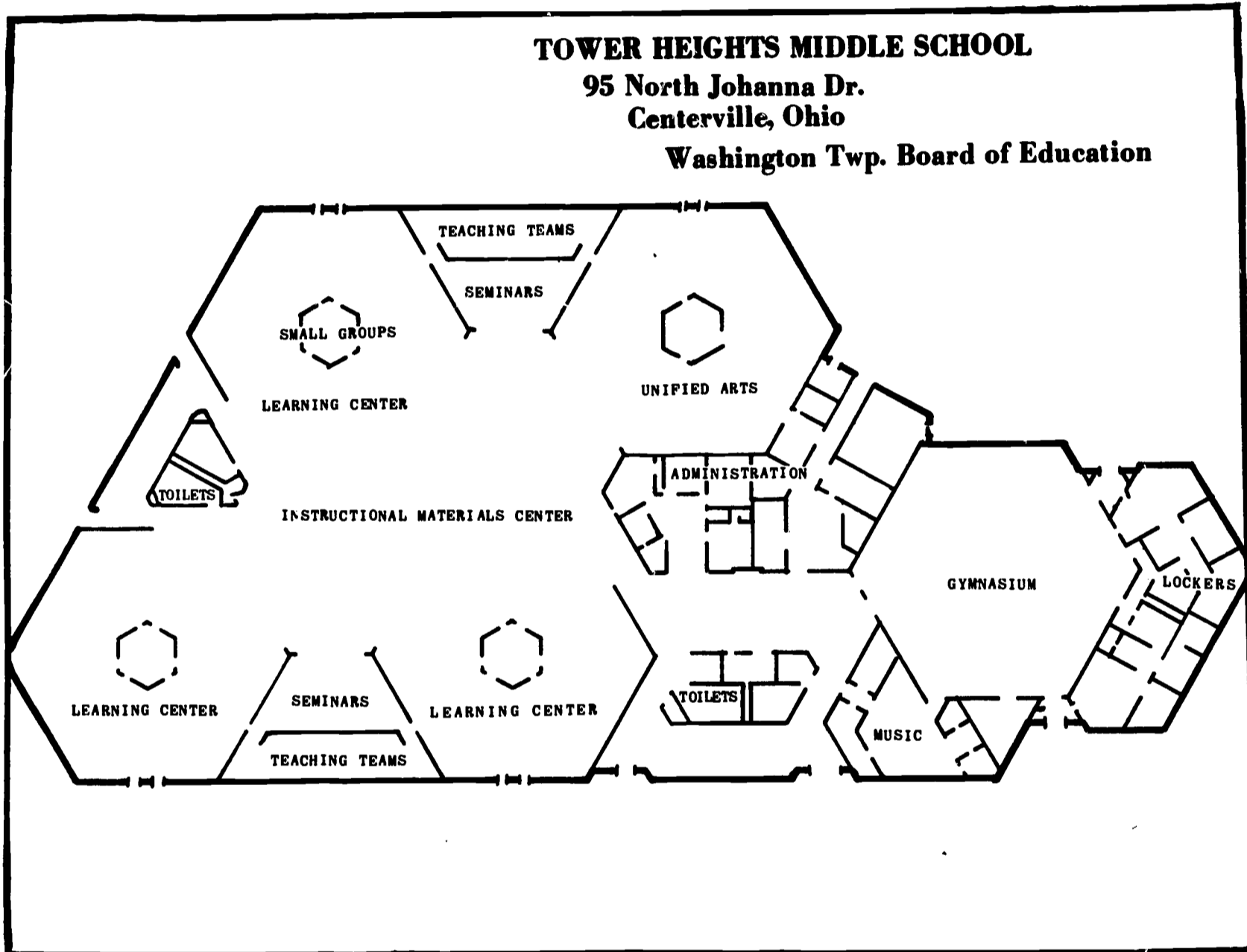
LEARNING CENTER

TOILETS

TEACHING TEAMS

MUSIC

Fig. 20–6. Floor plan of Tower Heights Middle School in Centerville, Ohio

unnecessary to provide separate areas for both types of teaching–learning activities. It often is advisable to plan a dual-purpose space only slightly larger than one being used for a single activity. However, there still occurs a significant saving of expensive-to-build square footage of space.

Well-planned multi-use spaces contribute to economical construction of a building without curtailing the educational program in yet another way. The percentage of utilization of the building is increased. An area can be scheduled for use every period of the school day. Considering the total building, this reduces the amount of square footage necessary and thus reduces the cost of construction. It must be emphasized, though, that the instructional process should not, and generally does not, allow itself to be hampered in any fashion.

Flexibility can be insured through the employment of several other design and construction techniques. A recognizable trend, evident in the floor plan of the Tower Heights Middle School, is the absence, or near-absence, of the use of interior walls. Such a plan insures immediate flexibility, and inspires the permissive use of space. No limitation is set by any fixed construction. Of course, the construction of schools in this way has demanded the creation of new instructional equipment, especially that for audio-visual use. Still another, and more widely used, technique is the installation of sound-retarding folding or operable walls. It is generally recognized that this type of wall should retard sound transmission of at least 40 decibels. Anything less than this would not satsify the instructional program, since noise would interfere with teaching. With the proper model of wall installed, however, immediate flexibility is again insured. The degree of flexibility is only limited by the extent to which operable walls are utilized. It is most desirable when using these two means of insuring flexibility that proper control of the acoustical environment is planned. Still another means is the use of demountable interior walls. Through a network of overhead and ground-level tie-ins, soundproof walls can be installed which give the appearance of permanence but which can be relocated to provide new spaces or removed completely. It is obvious that flexibility in this case is not as immediately possible as through the two means previously described.

Naturally, the degree to which any of these means of providing flexibility are utilized in a school house depends entirely on the degree of flexibility demanded by the predetermined, predefined curriculum.

SPECIFICATIONS FOR TEACHING SPACES

The specifications for any educational space must spell out the need for control of the learning environment through the factors discussed previously in this chapter. Appropriate thermal, visual, and acoustical controls are necessary as is insured flexibility. Absolutely necessary, too, are the definitions for proper space relationships that will be discussed later in this section.

Many desirable—indeed, necessary—components of a teaching space are common to each other, including, again, the thermal, visual, and acoustical factors. Other common components that must be specified if desired by the planners generally include amounts of chalkboard and tackboard, perimeter storage, fixed or unfixed audiovisual facilities, display facilities, and water outlets. Special areas, however, do have special requirements and must be so specified.

The planners, in their quest for a realistic approach to specifying needs, must keep in mind that state building codes as well as state department of education regulations will often affect what they detail in specifications.

Space Relationships

Written specifications for any area should include a description of the desired space relationships of that area with other spaces in the building as well as with facilities outside of the building. Decisions affecting space relationships must be carefully considered by the planners. Some of the bases for decision making include: (1) curricular correlation (for example, planning mathematics and science courses to allow common use of a laboratory or lecture area); (2) degree of common use of the area (for example, expecting all students in a middle or junior high school to use the instructional materials center frequently, thus making it necessary to locate that area as centrally as possible); (3) frequency of contact with the outside (persons and places) for curricular reasons or administrative reasons; and (4) degree of use of spaces by other than regularly enrolled persons (for example, making the administrative suite available to the public).

Furniture and Equipment

Educational specifications are prepared as a guide to the architect's design of a school house. Listings of furniture and equipment, therefore, are of little importance except where an explanation of their required presence and use will convey to the architect a concept of a particular space. Of importance, however, is the specification of utilities necessary for the successful operation of equipment. Too few proper electrical outlets in a typing classroom, for example, would cause undue delays in later planning stages of the building. Well-prepared specifications are the answer.

Science Teaching Spaces

The most commonly utilized spaces are multipurpose laboratory–classrooms with supporting activities carried out in project or preparation areas and animal and plant rooms (Figure 20–7.)

Laboratory counters within the laboratory–classroom should be installed on the perimeter of the area. This arrangement allows the central portion to be equipped with desks and utilized as a classroom area. All laboratory

Fig. 20–7. A well-lighted and equipped science classroom

counters should have acid-resistant tops. The floor covering used for this type of area should also be acid resistant. The utilities installed will depend upon the planned instructional activities, but certainly both hot and cold water taps are necessities and natural gas outlets may be desirable. Lockable cabinets are desirable for the storage of equipment such as microscopes. Electrical outlets in sufficient numbers to service the student stations as well as a teacher demonstration table are required. A master switch to control all utilities is desirable. Glare should be kept at a minimum and the color scheme should complement this requirement. Neutral grays and greens are suggested. Mechanical ventilation space may be necessary and should be considered; 1,000 to 1,200 square feet per area is recommended. Animal and plant rooms are best utilized with gravel floors; electrical outlets and a water source, with a sink, should be provided. Proper temperature and humidity control should be assured. Exposure to sunlight is important; therefore, a southern exposure for this area is desirable. Sufficient space per area is 300 square feet.

The project or preparation rooms are for student use on a individual or very-small-group basis. Laboratory counters as well as the utilities provided in the laboratory–classrooms are necessary here, too; 300 to 400 square feet per area is sufficient.

Of course, common storage spaces are necessary and should be equipped with acid-resistant floor-to-ceiling shelving of varying heights. The floors should be acid resistant, also. Mechanical ventilation is a necessity.

Other areas may certainly be planned, depending upon the curricular demands.

Mathematics Teaching Spaces

In addition to regular classrooms, thought should be given to including a mathematics laboratory in educational specifications. This appears to be a growing trend in schools housing middle or junior high school youngsters. Of course, its inclusion is dependent upon the planned curriculum.

Modern equipment for mathematics teaching in classrooms includes several necessary items. The frequent use of audiovisual materials requires electrical outlets all along the perimeter of the space. Chalkboards, sometimes oversized ones imprinted with coordinate graphs and other mathematics working tools, should be planned for. For easy and immediate use, a permanent, pull-down projection screen is appropriate. Again, according to instructional methods, flexibility within a single instructional space and within the total mathematics area through the use of operable walls, visual barriers, and other means may be desirable. Sufficient space for an average class size of thirty is 800 to 900 square feet. Although it depends on each local decision, the mathematics·teaching area is most commonly located adjacent to the science teaching area.

The mathematics laboratory, generally one-half to two-thirds the size of a single teaching space, is to be utilized primarily for self-directed student study. Because of the equipment potential, an electrical outlet is necessary at each student station. It is useful to have student stations in the form of carrels, where some privacy is insured. Ten to fifteen stations are the desired maximum, with the remaining space set aside for one or two small seminar areas. A location central to the mathematics area would allow the most appropriate use.

As is true in all cases, other areas may be planned and specified.

Social Studies Teaching Spaces

With the increased emphasis on individual study, the social studies classroom is being supplemented by a space for study groups. Sufficient space for the average class size of thirty is 800 to 900 square feet; for the study space, 400 to 600 square feet.

Classrooms should be equipped with permanent or nonpermanent cabinets for the storage of student projects. A sink with a work surface is desirable for each instructional space as is an area where student projects may be displayed in finished form. Built-in facilities for map display are most desirable. Social studies is a subject that lends itself to teaching through audiovisual means. Therefore, electrical outlets along all stretches of the perimeter of the spaces are a necessity. Flexibility, as in the mathematics areas, may be deemed desirable. If so, the need and the means for insuring that flexibility must be specified.

The study space is primarily for individual and small-group study. Carrels, with facilities for the use of audiovisual equipment included in or around them, are necessities. Chalkboard will get frequent use and should be provided. A comfortable environment conducive to this kind of study should be specified and provided.

Language Arts Teaching Spaces

Retaining the thought that the curriculum is the influencing factor, specifications for language arts instructional spaces will include classrooms, spaces for independent study, and language or learning laboratories. The last item has been discussed elsewhere in this book.

As with other regular classrooms, 800 to 900 square feet per instructional space is sufficient. The degree of desired flexibility, also similar to other areas, will vary and must be specified. In addition to normal perimeter shelving, even more shelving, perhaps in a "library corner," should be provided so that the instructor can use and encourage student use of resource materials. An overhead projection screen should be provided as well as electrical outlets along the perimeter of each space.

The independent study space should allow individual or small-group study. The teacher may, at times, be a leader of a seminar or a director of student research. Perimeter shelving for books and other materials is desirable. Enough carrels to seat ten to fifteen students are necessary and should be situated on the perimeter. If deemed appropriate, the carrels can, of course, be designed with electronic reception equipment. Chalkboards are as important as they are in the classrooms. Sufficient space would be 400 to 600 square feet.

With the anticipation of curricular coordination, the language arts area should be located adjacent to the social studies area. Both areas should be immediately ajacent to the instructional materials center. It is desirable, too, to locate the language arts area in close proximity to the auditorium, little theater, or other areas available for instructing in public speaking or drama. This should not exclude the use of regular classrooms to teach these subjects.

Industrial and Fine Arts Teaching Spaces

These two areas, usually separated, are considered together because of the increasing dependence of one area on the other for shared facilities and appropriate multi-use. And, as it should be, this sharing of facilities is being generated by curricular trends. With art expanding to arts and crafts, the use of facilities provided in the shop areas in needed. Conversely, facilities are shared that normally are located in art areas, such as kilns and grinding equipment. These facts, of course, indicate the necessity of locating these two types of areas adjacent to each other.

Other curricular considerations should affect the space relationships of

these areas within the total facility. The tie-in of dramatics with set design and construction points up the desirability of placing industrial and fine arts areas in proximity to the auditorium or little theater.

The exact specifications for industrial arts spaces will be tightly guided by what is to be taught within them. Many school districts utilize shops of a specific orientation at the junior high or middle school level. However, because of the plausibility of multi-use, general shops, where the major areas of the world of work can be taught, are most frequently constructed.

A general shop should be no smaller than 2,000 square feet, exclusive of storage space and other areas. An adequate supply of 110- and 220-volt receptacles is necessary. A master switch for the control of all electrical implements is suggested. Most important is a floor of some non-slip surface. In main task areas, the lighting should approach 100 footcandles. Oversized or double doors are a necessity, and a direct outside exit is most manageable. Mechanical ventilation is usually required by state regulations. Special acoustical attention should be given to the high noise level areas. For student use, semicircular, foot-pedal-operated wash basins are preferred.

For industrial arts purposes, a storage area and a finishing room usually provide enough additional spaces. The finishing room must be an enclosed area. Three to four hundred square feet of space is sufficient. To permit continual supervision by the instructor, it is recommended that the finishing room be separated from the main shop by a partition that is of unbreakable glass from the wainscot up. Mechanical ventilation is mandatory. The non-slip floor surface should have drains so that easy floor washing is made possible. Good lighting is a necessity. Dual exits are best for safety in case of fire.

The storage area should be windowless, but it should have a double-door outside exit. Storage racks and bins will insure efficient use of the space. It is sometimes desirable to include a tool storage area. Such a space may conveniently be made part of the general shop area or detailed as a separate area. Tool racks, bins, and cabinets with locks are necessarily a part of this space.

A fine arts complex for a middle or junior high school includes a kiln room, a drying room, and, if demanded by the curriculum, an art reading room. It is suggested that 1,200 square feet of space is ample for the teaching space and 100 to 150 square feet is sufficient for each of the other three spaces.

The art teaching space should reflect good taste in lighting and color schemes. Glare from natural light should be prohibited. A direct outside exit, opening onto a patio for student use, is desirable. Large double sinks, equipped with hot and cold water sources, are necessary. A semicircular foot-pedal-operated wash sink should be included. Several display areas and cases will complement the instruction and student activity nicely. Perimeter cabinets with tote trays for the storage of student projects, topped by work surfaces, should be built in.

An art reading room is rarely included in an art complex. Needed within it are adjustable shelves for books, magazines, periodicals, films, and other items. Means to display prints and reproductions of famous paintings are appropriate. The kiln room will house a single activity. Electrical outlets of both 110 and 220 volts are needed. Because of the heat generated, mechanical ventilation is a must. The drying room needs only shelves and racks on which to dry student projects.

Music Teaching Spaces

As is true of the art area, the music area, because of its tie-in with dramatics and the performing arts, should be located when possible in proximity to the auditorium or little theater. The band room ideally should have a direct exit to the outside. In addition to a band room, spaces necessary for the implementation of a sound instructional program include choral rooms, general music classrooms, practice rooms, and storage facilities. Within the teacher work space, to be discussed later, should be included a music library.

All instructional spaces should have special acoustical attention paid to them. Within the band room and choral room, risers are often used. This is appropriate, but care should be taken to insure that they are not permanent so that immediate or future multi-use is not impaired. For example, in smaller schools the choral room would most likely be used for general music as well. Electrical outlets should be placed all around the perimeter in both spaces. Both spaces demand double doors, also. For immediate instrument storage within the band room, perimeter storage facilities for all sizes and all types of instruments will be necessary.

The practice rooms, located between the band and choral room so that they can be shared, need electrical outlets and lighting up to 100 foot-candles. The storage area should be equipped with perimeter storage facilities for instruments as well as for uniforms, robes, and other costumes and clothing. This area especially should be environmentally controlled.

Home Economics Teaching Spaces

Several separate spaces, in appropriate relationships, are necessary for the successful operation of a home economics program. They include such areas as a multipurpose laboratory, living–dining–bedroom area, fitting room, rest room, and central storage area. The guide for the specifications of such areas should be the concept of nonspecialization for the middle or junior high school student. The fact that both boys and girls are being enrolled in home economics courses must be considered, too.

Consistent with the concept of nonspecialization, the multipurpose laboratory should be designed to house instruction in foods, clothing, home

living, child care, and other aspects of home economics. A wide variety of instructional equipment should, therefore, be placed in a multipurpose laboratory. Necessitated by this is special consideration of the number and kinds of electrical outlets needed to service refrigerators, washers, dryers, sewing machines, and a myriad of other electrical appliances. For safe control, a master switch is recommended. Instructionally, it is suggested that the living–dining–bedroom area be located equidistant from all laboratories in the event that more than one laboratory is needed. Operable walls are recommended as the divider between the laboratory or laboratories and the living–dining area. Within the laboratory, a large amount of wall-cabinet space is desirable for storage. Perimeter facilities for the storage of individual student projects are also recommended. Mirrors should be randomly placed throughout the area. Any and all windows and doors should be screened. Exhaust fans are a must in the kitchen area. A bright, pleasant color scheme is especially important in the multipurpose laboratory.

The concept of multi-use continues with the living–dining–bedroom area. This should have a totally controlled environment. Carpeting is highly desirable as a means of creating a proper "living" environment. Properly placed electrical outlets are necessary here, too. A warm color scheme should be planned.

Lighting approaching 100 footcandles will enable the most efficient use of the fitting room. Full-length mirrors should be provided. It is not necessary that this area be divided from the multipurpose laboratory by permanent walls.

Adjustable shelving, floor to ceiling, is recommended in a central storage area. Storage bins, too, will afford easy storage of house cleaning supplies and equipment. Instructional supplies, as well, will be stored here.

It should be especially noted that the concept of exploratory teaching demands the ready availability of various teaching spaces and materials. This factor has caused the trend to multi-use of spaces in home economics teaching, especially at the middle or junior high school level.

Physical Education Teaching Spaces

The primary purpose for which physical education areas are specified in the middle or junior high school is to provide spaces in which to teach physical education and health—*not* for interscholastic athletics. With this factor as a guide, instructional spaces can be specified that will contribute to the physical development and skills development of every student. Many spaces are needed for the sound operation of a physical education curriculum. They are described below, with the emphasis placed on those spaces used mainly for instruction.

Although it is primarily for use as a physical education teaching area, many will call such a space a gymnasium; however, it is not to be construed

as such. Its main use is for the teaching of physical education. The number of teaching stations needed will, of course, be determined by the enrollment of a specific school. The size of each station will be guided in a large part by the minimum standards established by the several states. However, as a rule of thumb, 80 to 100 square feet of space per student should provide a more than adequate area. Certainly, a basketball court, with standards, should be laid out. Sockets in the floor for many kinds of portable standards, such as those for volleyball and tennis, are necessities. All such areas should be laid out with each teaching station considered. Teaching stations can best be divided, with flexibility insured, by a series of visual dividers including portable, fold-up gymnasium seats on wheels. Space for such seats can be computed at approximately three linear feet per student; the total number provided should seat but a fraction of the student body, as intramural, not interscholastic, athletics are being encouraged. Sufficient, even lighting is necessary. Facilities to insure frequent air change within the space are important.

A noticeable trend in construction is to provide a little theater as a teaching space in place of an infrequently used, large auditorium. In this event, the physical education area may face a stage that also faces the little theater; the stage becomes a theater in the round. Necessitated by this is consideration of the acoustical treatment of the physical education area.

The provision for an auxiliary gymnasium–physiotherapy room is important. It may not be desirable in all cases to combine these two spaces in one. In most instances, however, the instructional activities do permit such a combination.

The floor surface and its load capacity need special attention, as weight-lifting will be carried on. The equipment load will be heavier than usual, also. Wall storage for such things as mats, weights, and isometric equipment is necessary. Water outlets with steam-producing capacity are needed as well as a means of mechanical ventilation. Of importance, too, are several electrical outlets of both 110 and 220 volts. This area does not need a ceiling equal to the height of a physical education teaching space. A height of twelve to fourteen feet is adequate.

Supportive areas, of course, are eminent in a physical education complex. Service units for both boys and girls, housing showers, lockers, toilets, and storage areas, are an important part. Mechanical ventilation is required in both areas. According to the breadth of a planned intramural program, a training and first aid room, for both boys and girls, is often included. Another optional area, a laundry room, is included on the basis of the extent to which the school assumes the responsibility for laundering towels and physical education uniforms.

The teaching spaces specified in the foregoing pages are those thought to be normal to every operational middle or junior high school. It is obvious that the special areas have been omitted. They will be discussed next.

THE INSTRUCTIONAL MATERIALS CENTER

The rapid explosion of knowledge has brought about the development and use of new tools of teaching and the renewed use of older ones. Books are only a part of the unending list of teaching tools available. Hence, the library has become only a contributing portion to the entire concept of the instructional materials center. Here, spaces must be provided to house every conceivable type of instructional equipment; these have become so complex that the classroom teacher must have expert help. Thus, the responsibilities of the librarian have been expanded in scope as well.

The names assigned to these spaces will surely vary from school district to school district. And the functions assigned to each, because of local needs for and interpretations of flexibility, certainly will not be standard. However, a commonly used title is instructional resource center. Such a center was described in detail in Chapter 10.

OTHER SPECIAL AREAS

Divorced from the arena of the classroom only through assigned space relationships are several other special areas that provide supportive space to the instructional program. Some special areas house the very important service functions. Discussion of these spaces follows.

Auditorium or Little Theater and Large-group Instructional Space

Against the cry of too little utilization of an auditorium that seats an entire study body has arisen the trend toward providing a little theater instead. There is merit to this choice.

Regardless of how much attention is given to an auditorium in terms of lighting, acoustics, thermal control, stage design, and many other factors, it is still unusable as a *teaching space* the largest part of a school day. One way to face the dilemma has been to construct a divisible auditorium. This is a very functional operation, but it is more costly than the concept of the little theater.

The little theater is generally designed to seat from one-fourth to one-third of the student body. It is given a lighting, acoustical, thermal, and stage design treatment similar to that of the auditorium; that is, in the seriousness of planning and intent. But because of its more manageable size, a sunken theater or theater-in-the-round is possible. The stage for the latter can be "backed up" next to a gymnasium seating area or cafeteria so that increased seating space may be available for presentations to the entire student body or to large groups from the public. In that event, an operable

wall across the stage area becomes necessary to separate the two teaching areas. However, music, drama, and speech as well as large-group instruction are provided for. Better use of space as well as a better instructional program is possible. The multi-use of space is gained with no damage to any instructional program. The simple cost analysis technique discussed in the early part of the chaper enters the picture as well.

Little theaters offer excellent facilities for large-group instruction. Of course, the maximum number of students to be scheduled for large-group instruction will first have to be determined. The frequency of scheduling such an activity will also have to be predetermined. Serious planning for large-group instruction may indicate that the auditorium or little theater, made divisible, may offer sufficient space. However, if this does not hold true, then other spaces for large-group instruction will have to be planned.

The most obvious way to solve the space requirements is to provide more spaces specifically for use in large-group instruction. Such instruction usually involves sedentary activities and, therefore, does not require excessive square footage per student. But it should be emphasized that the number of students and the activities to be engaged in *must* be predetermined before the size and number of spaces are determined.

There are many instances where a space specifically designed for large-group instruction will be unused. This is the same for any large space. The alternative to several large dedicated spaces is the transformation of several classroom spaces into a single large space through the use of operable walls (Figure 20–8), or the employment of wall-less construction on the interior. The desirability of this concept has been discussed elsewhere in this chapter.

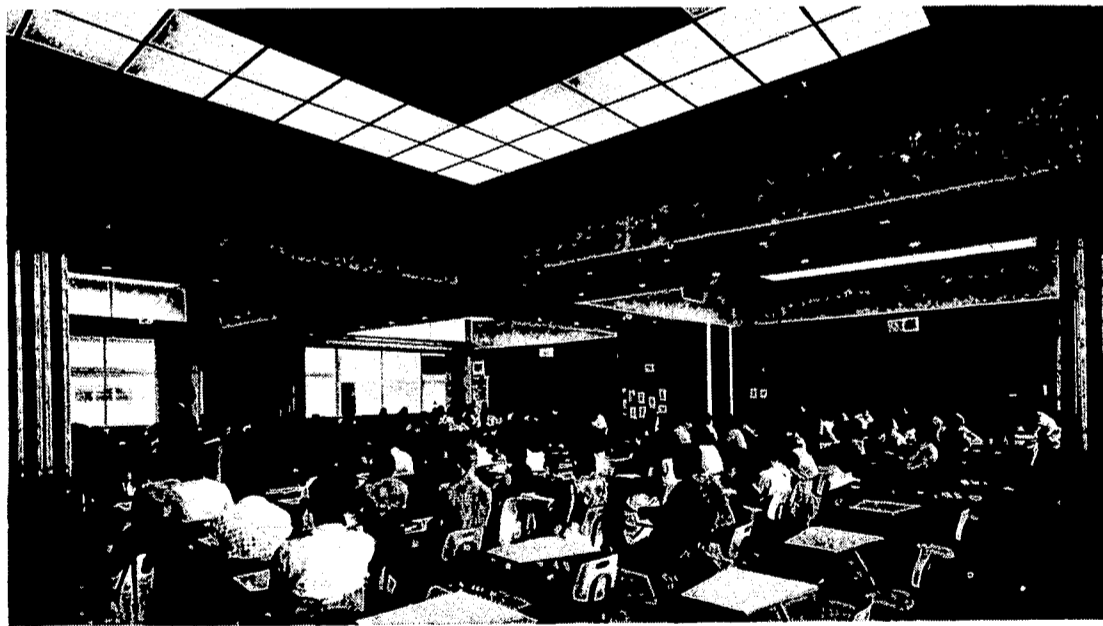Whether specific large-group areas are to be provided, and, if so, the

Fig. 20–8. Joining classrooms by use of operable walls

number in which they are to be provided, will have to be determined through a curricular determination of their frequency of use.

Food Service

Food service facilities such as those in use for many years are well known to most educators. Areas such as a kitchen serving area, dishwashing area, and service sink and cleaning area require items that include hot and cold water sources, non-slip floor surfaces with water drains, sufficient electrical outlets with safety features and a master switch, appropriate lighting, and direct outside exits from the kitchen and dining area. Other areas that must be included in specifications are food storage areas, non-food storage areas, a walk-in refrigerator, a faculty dining area, employee rest rooms, and an office.

The internal design must be assigned priority in terms of traffic and of traffic and of type and degree of multi-use. Large numbers of students must be able to get to the food service area and back to instructional areas with ease. They must be able to move through serving lines to dining areas and to the dishwashing area with equal ease. The kind of equipment specified often has an effect in this case. Fixed, inflexible items can interrupt good, efficient service. Therefore, even serving equipment should be movable.

Multi-use, if desired, must be well planned. It must be remembered that the primary use of the food service area, in particular the dining space, is to feed students. This fact alone places limitations on what other use the area should be planned for. Too long have we used a dining area, for example, to complement physical education spaces. The secondary uses to which the space is put must not be incompatible with the primary use. Acceptable multi-uses include using the dining area as seating space for the theater-in-the-round arrangement (as discussed with the little theater), and complementing a home economics program by using the kitchen facilities housed in the food service complex.

A trend in food service to students, particularly those of secondary age, is the employment of vending machines owned and operated by private firms. Heated by ultraviolet means, hot lunches are served from vending machines at a price slightly higher than school lunches (private vendors do not qualify under the surplus food programs or the National School Lunch Act). The advantages to the school system include resignation from the food service business and the economies of using less physical space and fewer food service personnel.

Administrative and Special Services Area

A plan accepted for quite some time by knowledgeable educators has been to include administrative and special services facilities in a single com-

plex. This concept has proven to be very workable if one important factor, space relationships, is observed. Generally, for example, the offices for guidance counselors should not be visible from the office of the principal or assistant principal because of the obvious separation between the discipline and guidance functions. However, both functions demand the availability of student records. So to avoid duplication of records and facilities, a records area can most appropriately be located between the administrative and guidance areas. Such an analysis should be carried out concerning the space relationships of all facilities included in the complex.

Other spaces of an administrative nature that should be specified for this complex include: (1) general office and reception area, (2) conference or testing area shared with special services, (3) workroom–duplicating room, (4) storage area, (5) central book storage area, and (6) teachers' lounge. Facilities necessary to the special service activities include: (1) special services reception area, (2) guidance offices, (3) social worker's office, (4) speech and hearing therapy room, (5) medical clinic, and (6) shared conference or testing area.

Teacher Offices or Work Spaces

A significant addition to the educational specifications for modern, functional schools is the teacher office or work space. Such an area has a large number of uses, such as teacher planning, teacher–student conferences, teacher–parent conferences, departmental meetings, and even students' independent study. Usually, a separate space is not specified for each teacher but rather a space large enough to house, at one hundred square feet each, all of the members of a department. If a department has above six to eight teachers, then two areas may be specified. All that is necessary are desks, chairs, and storage facilities for the teachers. Of course, all of the environmental control factors are applicable as well.

An uninformed taxpaying critic may be vociferous in his objection to these spaces. However, it is a most economical plan, as every classroom in the school building can be used every period of the school day. In other words, a higher percentage of utilization is made possible and less classrooms have to be constructed.

The most desirable location for the teachers' work space is central to the classrooms of the department or grade level in which the teachers will work.

Seminar, Small-group, or Independent Study Areas

Newer organizational patterns for instruction such as team teaching, the Trump plan, and nongraded classes demand spaces of sizes varying from the standard classroom space. Designed and utilized properly, one

space can house groups of ten to fifteen and twenty-five to thirty but still can be used as an area for individual study. Flexible means of dividing an area that includes sound-retarding operable walls or, if the space is carpeted, visual barriers. Audio-passive equipment will often be utilized by many individuals at once, necessitating appropriate electrical outlet provisions. Easily movable study carrels are most appropriate.

Two possibilities exist for locating such spaces. First, they fit nicely into the scheme of an instructional materials center. In such a case, this type of area may be designed as a limited learning laboratory. Second, it may be desirable to randomly locate these small-group areas among the classroom scheme on a departmental or grade level basis.

The names of areas mentioned abo. `.e the ones most commonly used. Similar spaces may be included under different names. Also, the curricular demands of a particular school may make necessary the inclusion of unique instructional and supportive spaces.

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21

Relations with the Community

It is generally agreed that the American public school must depend for its strength and vigor on the support of local citizens, and that, in turn, the interest and support of citizens depend on their understanding of school affairs. The corollary of these two facts is that the school administrator, carrying out his primary objective of improving the educational opportunities of all children and youth, is obligated to maintain an effective school–community relations program.

Although the definition of an effective program may vary from community to community, more and more administrators are recognizing that all programs require twin efforts in order to raise the level of public understanding through information programs and to enlist community support by drawing citizens into meaningful participation in school affairs.

In this chapter, (1) some basic considerations regarding the communication process will be developed; (2) the nature and purpose of sound school–community relations will be set forth; (3) appropriate roles of key staff persons and lay citizens will be delineated; and (4) promising practices of working with organized community groups and with the home will be discussed, with particular reference to developing effective relations with disadvantaged parents.

THE DIMENSIONS OF SCHOOL–COMMUNITY RELATIONS

A sound school–community relations program doesn't just happen. It it systematically planned, organized, and implemented and is continuously evaluated. Every effort should be made to achieve broad participation in such a program to help insure its effectiveness and to provide it with solid

support in the community. Let us take an inventory of the dimensions of school–community relations.

Nature of the Community

Perhaps the place to begin is with the largest unit of organization— the community. The more knowledgeable the school staff is about community life, the more effective it can be in developing and maintaining effective school–community relations.

The rapid population mobility and shifts that have taken place in the past decade have tended to sharpen distinctions among communities. We are aware of the rural community, losing population and vigor; the low-income neighborhood in large urban centers characterized by physical and social deterioration; and the affluent suburbs with their highly educated and interested citizens. These are greatly oversimplified community portraits. Yet, although a standardized and rather uniform style of life may be found throughout the nation, each school–community is unique and should be studied by the school staff in some organized way to identify that uniqueness.

The history, geography, socioeconomic trends and developments, and future planning of a community should be closely studied. This can be done through studying books and other printed material, carefully reading the daily community newspaper and other regularly published materials on community life, and talking to veteran residents about the past, present, and future of the community. Just as it is not possible to teach a child effectively unless one knows his physical, mental, and emotional history, it is not possible to communicate effectively with citizens of a school community unless one knows the characteristics of the larger community of which they are a part.

A deep interest in community affairs by school staff members should include active participation in those affairs. As citizens in voluntary community groups they can devote their time and talent to filling some community need—be it health, welfare, recreation, or some other youth-serving activity. Members of the school staff must, of course, exercise judgment in their choice of groups and in the extent of their participation.

Citizens' Expectations

At a more sophisticated level of community study, once general information about the community is known, studies are aimed at obtaining descriptive information about citizens' expectations regarding the role of the school. Information about attitudes of citizens, community resources, and local mass media practices are relevant to developing a sound school–community relations program.

Three basic areas of exploration are suggested:

1. Level, accuracy, and sources of information citizens have about the schools.
2. Citizens' educational goals, aspirations, and attitudes toward the schools.
3. A socioeconomic profile of the community related to school interests.

Such studies can best be conducted at the school district level, but staff members of individual schools must supply pertinent information if the study is to be effective.

At the local school level, staff members would need to focus on fact-finding in at least six areas of investigation. These areas are: staff relations, parent relations, pupil relations, public relations, interagency relations, and legal and policy restrictions. Several questions might be asked under each of these areas.

Staff relations. How does the central professional staff function in administering a program of public relations? What is done in the local schools to improve present practices and to meet public relations needs? What attitudes of principals and teachers restrict the flow of communication? What kinds of training might improve the flow of communication between school and community?

Parent relations. What kinds of information are disseminated to parents? How is this done? How are their requests for information handled? What kinds of information are needed to help parents share the responsibility for the education of the individual child?

Pupil relations. Is the pupil receiving an education that advertises the excellence of the school system? Does the pupil have an opportunity to participate in civic affairs? Do students participate in public panel discussions and do they write occasional stories for the local newspapers?

Public relations. Is the public being informed of the value it is receiving for its tax dollars invested in schools? Does the public know what the schools are trying to accomplish? Is the public familiar with the nature and extent of school problems? Does it have an opportunity to express its views and concerns about public education?

Interagency relations. Are the schools cooperating efficiently with other community agencies, or are they guarding their superior tax position? Are there ways in which community organization can combine forces to better handle the needs of children?

Legal and policy restrictions. What existing policies affect the development of a school public relations program? How might new policies be

integrated? What is the legal or policy base upon which a formal school public relations program can be built?

Publicity and Communication

In coming to grips with the problem of improving school–community relations, we must take into account the difference between publicity and communication. Publicity is simply the act of attracting attention to one's self, or to the accomplishments or alleged accomplishments of an institution or agency. This function is relatively easy to master.

However, the effectiveness of a "sell the schools" approach is rather limited and, indeed, may win for us more enemies than friends.

Communication, on the other hand, has as its goal the creation of mutual understanding; it denotes an essential relationship of talking and listening.

Too often, publicity is misleading; it provides the public with a distorted image of an institution, person, or event, or it operates within an area of skepticism and distrust.

You and everyone else have heard of Pike's Peak. It has a wide reputation as a very tall mountain. But did you know that there are thirty peaks in Colorado higher than this famous one? What made the difference? That's right, publicity!

In the Gold Rush of 1858, the slogan "Pike's Peak or Bust" was the rallying cry of prospectors traveling West. The Peak, standing in isolation above the plains, was a signpost en route to their dream of wealth. Because of publicity, thirty mountains in Colorado are taller than Pike's Peak—in everything but reputation!

Now from time to time, small doses of judicious publicity may do no harm and some little good in a school public relations program: a bond issue or a school tax levy upon which citizens must vote; the dedication of a new school; state, regional, or national academic awards won by students; particularly outstanding guidance, reading, or athletic programs; and the like.

Publicity can add stature to an event, but publicity by itself cannot create the mountain. In other words, the fundamental ingredient of a sound school–community relations program is a good product.

MOVING ON A BROAD FRONT

The effective public relations program at the school level is characterized by a systematic effort to orchestrate the work of the teaching staff, supporting personnel, pupils, parents, and citizens-at-large in developing and maintaining two-way communication between school and community.

The Measure of People

Since teaching is the service for which schools exist, citizens judge the adequacy of their schools largely in terms of how well they believe the children are being taught. Indeed, the most important ingredient of sound school–community relations is an effective instructional program as reflected in sound pupil growth and development.

The teacher's role. The involvement of teachers in school public relations is almost exclusively interpersonal. Attitudes toward and understanding of the needs and values of good relations are especially important. Examples of public relation activities include:

1. Serving on staff public relations committees; acting as local news representatives; reporting parent concerns, pupil concerns, and areas of conflict.
2. Developing understanding and partnership concepts; promoting parents' visits to the school and teachers' visits to the home; reporting pupil progress, participation in the PTA.
3. Good teaching; respect for the rights and opinions of pupils; maintaining attractive classrooms; showing concern for pupils' opinions about school conditions; extraclass activities.

Noncertificated staff personnel. There is considerable evidence that blue collar workers in a community obtain much of their information about schools from the school janitorial staff, and from school secretaries and clerks, who handle a large share of the telephone inquiries and office visits.

The responsibilities of the supporting school staff include maintaining appropriate relations with the professional staff; obtaining accurate and up-to-date information about schools; receiving suitable printed material; and participating in in-service training courses pertinent to their role in school public relations. In addition, the supporting staff, in their relations with the public, should show courtesy and efficiency, and should disseminate information or refer to sources of accurate information.

The pupils. At the rate of five days a week and forty weeks a year, each pupil in a class makes 200 round trips between school and home each year. No other medium of communication—newspaper, open house, school fair, parent–teacher organization, or parent newsletter—can compare with the pupil as the chief communicator between school and the home and community.

A course of instruction on the school as a public institution in a democratic society would be of value in two ways: the student could impart what he has learned to parents and neighbors; and later, as an adult, he would be able to participate more intelligently in school activities and

in voting on school issues. It is sobering to consider that when early school-leavers enter the adult world, they can support, neglect, or, at worst, oppose public education with their opinions and votes.

There are a host of cocurricular activities by students that are directly related to school public relations. They include: student services and projects contributing to the community, such as civic beauty, urban improvement programs, and the like; athletic events; speech activities in dramatics, debate, discussion, oratory, etc.; music activities in bands, glee clubs, music festivals, etc.; publications such as newspapers, yearbooks, student handbooks, and magazines; and club and other activities such as assemblies and commencements.

The parents. The parents' role in school public relations is of direct concern to the school staff because it relates primarily to the local school and to their own child. The activity areas primarily involve securing and supplying information. Such information relates to the educational concerns of the individual child, channels to use in problem and other situations, and broad-based educational information.

In addition parents often initiate informational activities by seeking conferences with school staff members; writing letters to teachers, principals, etc.; working through organizations such as the PTA; organizing and conducting surveys; and participating in local school activities as room mothers, working for school fairs, etc.

Citizens-at-large. Citizens in the community often seek information about school conditions and needs by inquiring about educational philosophy, practices, and goals and by participating in local advisory groups or as consultants. Citizens also initiate informational activities by writing letters to school officials, the school board, the local press, etc.; by testifying at public hearings; by actively participating in local elections; and by participating in activities associated with membership n community organizations.

The Mass Media

One of the most striking features of the twentieth century is the fact that we live in an age of mass communications. Newspapers, radio, television, motion pictures, popular magazines, and pocket-sized books have become the main channels for providing the public with fiction, entertainment, and information.

Some communications specialists suggest that mass communications are all-powerful, that they determine thought and action to a marked degree; other analysts are inclined to minimize their effects. We cannot explore the issue in this chapter. The fact remains that large numbers of citizens turn

to radio, television, and newspapers for information about current affairs—international, national, and local. And public schools are furnishing an increasingly important part of local news coverage.

School-produced newsletters. In order to tell the school story to citizens of the communities they serve, many schools are producing a variety of publications, including annual (or superintendent's) reports, booklets and brochures on various aspects of the school program, and newsletters. Perhaps the most widely used school-produced medium for communicating with the public is the school newsletter.

Teachers are very much involved with such letters because: (1) they need the information included in all letters, for this is one of their main sources of information about the schools; (2) they, at least at times, are called upon to provide the "news"; and (3) some teachers may have responsibilities to help produce the newsletter.

Newsletters vary in size, scope, regularity of production, and means of distribution to the public. They can be small, mimeographed, one-page affairs; or slick-paper, well-illustrated, printed bulletins that are widely distributed in the community.

Typically, newsletters report current achievements, events, and problems of the school. They report activities of people—pupils, teachers, and patrons of the school. The types of school or school-related events and activities on which newsletters report include:

1. Pupil accomplishments, honors, scholarships, and the like.
2. Patron participation in school affairs.
3. Services or recommendations of PTA, civic organizations, and citizens' committees.
4. Developments in curriculums, materials and equipment, and teaching methods.
5. Trends in pupil enrollment, costs of buildings, and supplies.
6. Developments in school health, library, and lunch services.

Schools that produce newsletters must tailor their productions to fit their resources, both personnel and financial. But the following suggestions are based on practices various schools have tried and found successful:

1. Devote an issue to a single theme (pupil personnel services, the art program, testing services, new educational media).
2. Produce more than one edition for specific publics (elementary and secondary, parents and others, district or regional, and so on).
3. Mail the newsletter to homes rather than having them delivered by the children. It is well known that many pupils misplace or discard school materials before they reach home. Mail provides more reliable delivery, and calls attention to the high value that the school places on the material reaching the homes.
4. Place greater emphasis on professional production of material,

Increasingly, school systems are finding ways to produce better written, designed, and illustrated newsletters.

5. Provide for feedback from the community. Many newsletters now contain questionnaire forms for parents and others to complete and return to the school, reports of parent or community surveys on school matters, letters to the editor from citizens, reports of parent or community surveys on school matters, and reports of organized citizen activity in school affairs.

Newspapers. Newspapers are a major means of interpreting schools to the public. Instructional activities in the classroom—the heart of education—are a potential source of a constant flow of news stories that inform people about educational services and accomplishments. For example, stories about a model solar system made in a fifth-grade classroom, an elementary school book-week program, science or scholarship awards, and a spring preschool registration "roundup" for children entering kindergarten the following September are all grist for the newspaper mill.

For the local newspaper, the best school news stories concern the boys and girls attending schools that the local citizens pay taxes to support. Each teacher in the community is not only a *direct* source of information—he is, if he has "a nose for news," the *best* source of information. Why? Because he was there. If Johnny arrived one morning lugging a box in which silkworms gnawed at the leaves on mulberry twigs, he either knows why he did so or soon finds out. And he knows what happened thereafter in Johnny's science class.

The unusual—the novel—is of great interest. The routine is not. If Susie has a new baby brother, that is of little interest except perhaps to the people who live on Susie's block. But when Susie's teacher arranged for her mother to bring the new baby to school periodically throughout the year so that the class could observe the baby grow, that was news. Two other "sure-fire" elements for a school news story are a youngster and his pet.

Radio. In many communities, the local radio station offers splendid opportunities for school people to inform the public about the conditions and needs of their schools. Since almost every home in the nation has at least one radio and close to 50 per cent of them have two or more, the potential audience is tremendous. In addition, a phenomenal development in radio station management and operation has enormous implications for school public relations efforts—*radio has gone local.*

There was a time when the four national networks monopolized programming at the local level. But currently networks fill perhaps 20 per cent of an affiliated station's schedule (most of their contribution is news), and more and more radio stations are relying on local sources for programs, some of which, according to the Federal Communications Commission, should be in accord with "public interest, convenience, and necessity."

The FCC, which is charged with regulating and television stations, does

not specifically require that these outlets devote any broadcasting time to the schools. The stipulation that stations operate in accord with "public interest, convenience, and necessity" can be served by local news programs and by descriptive or interpretative programs dealing with agriculture, religion, economics, labor, business, and a host of other subject areas. Nevertheless, given the current widespread and intensive interest in school affairs, many program directors not only welcome an idea for a program dealing with the local schools, but are often ready and willing to help teachers and other school personnel prepare the program.

Requests for radio time should be made through the office of the superintendent of schools. Before formulating even tentative proposals, consider carefully the purpose you believe the broadcast will serve. Bear in mind that the program you devise will be effective only to the degree that it provides useful information or impels constructive citizen action.

When most schools ask for radio time, they request spot announcements or full programs. Stations are usually more ready to grant time for spot announcements. There is less opportunity to induce station managers to use full educational programs. If your school has a suggestion for a program or a series, it would be a good idea to rough out the proposal, and then discuss it with the program director, who can decide how it will fit into his overall schedule.

Television. In the average home, television is viewed by one or more persons almost six hours each day, mostly during the evening hours, when two-thirds of all sets are in use. Television is an incomparable public relations medium for disseminating information about school services, accomplishments, problems, and needs. In addition, that ubiquitous medium can be used to influence opinions and attitudes, and to help mobilize citizen action.

There are several approaches that a school can take in using television as a school-to-home medium of communication:

1. Integrating a program within an existing show.
2. Using spot announcements ranging from ten seconds to one minute, depending on what the station is willing or can be persuaded to give.
3. Developing a full program or a series, the most time-consuming and difficult option.
4. Persuading the television station to prepare the educational show, using its own production crew and money, with the assistance of school personnel.

WORKING WITH ORGANIZED GROUPS

Through their personal and official contacts with citizens in the community, school staff members have an immediate and long-lasting influence

on school–community relations. But the American experience indicates that the most effective way to promote a course of action or to bring about some desirable change is through the organized efforts of dedicated and interested citizens.

Over a century ago, Alexis de Tocqueville took note of the eagerness of Americans to cooperate in behalf of a cause in his *Democracy in America:*

> *Americans of all ages, conditions, and all dispositions, constantly form associations. The have not only commercial and manufacturing companies in which all take part, but associations of a thousand other kinds—religious, moral, serious, futile, extensive or restricted, enormous or diminutive. The Americans make associations to give entertainments, to found establishments for education, to build inns, to construct churches, to diffuse books, to send missionaries to the antipodes; and in this manner they found hospitals, prisons, and schools....Wherever, at the head of some new undertaking, you see the government in France, or a man of rank in England, in the United States you will be sure to find an association.*

The task of strengthening ties between school and community is so big and complex that it can be dealt with adequately only through organized groups. Two of the most important of such groups are the National Congress of Parents and Teachers (and its local affiliates) and citizens' committees for better schools. In addition, wide range of social agencies, service organizations, and voluntary groups in the community can contribute to improving school–community relations.

The PTA

The National Congress of Parents and Teachers may point with pride to its defenders and, at the same time, view its stout critics with alarm. In recent years, this venerable body has been subjected to some particularly sharp criticism in popular magazines and professional journals. In an article appearing in magazine with a wide circulation, one prominent educator charged the PTA with being a dull, mediocre, and irrelevant organization— and an insignificant force in American education.

PTA defenders insist that the organization is a unique and irreplaceable group whose support and cooperation is almost indispensable to the effective operation of the public schools. The PTA, they insist, is a dynamic and extremely valuable friend of the schools.

A middle-ground position is also well represented in American life. While many thoughtful people, both educators and laymen, recognize that the PTA is well established in the American public school tradition and has sought to achieve many worthy goals, they also point out that, like all organizations that have grown large and bureaucratic, it has serious defects.

Goals of the PTA. The central principle of this parent–teacher organization is that the welfare of children is best served by close cooperation between the two groups most intimately concerned with children—their parents and their teachers. Teachers and parents are inevitable partners in the search to provide children with optimum opportunities to develop their potential. The aims of the National Congress of Parents and Teachers[1] bear testimony to the lofty goals of that organization:

1. To promote the welfare of children and youth in the home, school, church, and community.
2. To raise the standards of home life.
3. To secure adequate laws for the care and protection of children and youth.
4. To bring into closer relation the home and the school, so that parents and teachers may cooperate intelligently in the training of the child.
5. To develop between educators and the general public such united efforts as will secure for every child the highest advantages in physical, mental, social, and spiritual education.

Certainly, no educator could reasonably quarrel with such laudable principles. Yet the principal of an intermediate school is painfully aware that it is more difficult to develop and sustain parent interest in a parent–teacher organization than it is for his counterpart in elementary schools.

The momentum of interest in school affairs typically generated by parents of children in elementary grades seems to slow down when their children enter the intermediate grades. Why is this? Perhaps the breakthrough toward better parent–teacher organizations can come through better planned programs involving the cooperative efforts of pupils, parents, teachers, and representatives of community groups. Certainly the tradition-bound "Speaker and Pink Tea" type of meeting must be supplanted by activities that are meaningful and of immediate interest to parents. There is an increasing trend among teachers toward helping to plan and participate in programs that interpret classroom activities. They may take the opportunity to demonstrate a teaching method or procedure during the monthly PTA meetings. They may explain the purpose of the "new math," or the advantages of certain pupil grouping methods, or the purpose of including a certain subject in the curriculum.

Teachers can help to plan PTA meetings that are meaningful to parents by sounding them out on *their* concerns about schooling and their children. And they can help the principal in his efforts to cooperate with the PTA by using parents who wish to donate their services to the school. Teachers

[1] National Congress of Parents and Teachers, *The Parent Teacher Manual.* (Chicago, Ill.: The Congress, 1953), p. 12.

can also identify the activities most in need of parental assistance, whether in the library, playground, lunchroom, or classroom.

Citizens' Committees

Another type of organized lay g oup effort to improve the schools that necessarily involves school staff cooperation is a citizens' committee to improve the schools. Such lay advisory committees are called by different names, such as "lay advisory council," "citizens' committee" or "citizens' council," or "lay commission on education." The most common terms is "citizens' committee," and this term will be used in this section.

How committees operate. Citizens' committees have explored problems and issues and have made recommendations concerning practically every aspect of public school objectives, programs, and operation, including:

Buildings and grounds
Finances
Consolidation of schools
Curriculums and curricular activities
Educational policies and objectives
Pupil personnel services
School libraries
Supplies and equipment
Relations with boards of education and school administrators
Community and general welfare
School–community relations

Representative committees are generally organized to deal with a specific problem (and to disband when they have accomplished the purpose for which they were organized); they devote themselves to gathering information to deal with that problem. They usually maintain sound lines of communication with the school administration, school board, and community leaders.

Most citizens' committees have made valuable contributions to school improvement (1) through fact-gathering, (2) through studying various school policies and evaluating those problems in terms of the aspirations and goals of the community, and (3) through mobilizing public support for major undertakings, such as financing a new school building.

The school staff and the committee. Citizens' committees are typically organized into subcommittees, some of which may seek in formation on what is taught in the classroom. Or it may wish to become enlightened about the use of new educational media, ungraded classes, team teaching, or new methods in the teaching of reading. In such cases, the teacher is

the most obvious source for such information and perhaps the only one readily available.

In some instances, school staff members are asked to serve on a sub-committee to help plan procedures for gathering information, processing it, and interpreting it for lay persons on the committee.

Though most citizens' committees make valuable contributions, some fail in their purpose. Indeed, some have done the schools considerable harm. Some committees have an ax to grind, such as keeping school tax levies low. Still others are organized by small, like-minded groups of people who are not friendly to the school and undertake their task with preconceived notions about what is wrong with the school.

Some guidelines. The school principal and his staff cannot afford to become involved or to actively cooperate with groups that (1) are hostile to schools, (2) are inept or poorly organized, or (3) set obscure and aimless objectives. Effective committees have certain characteristics. To recognize a committee with a high probability of effectiveness, the principal can apply the following yardstick. Does the committee:

1. Make an honest attempt to be broadly representative of the entire community—geographic as well as occupational, cultural, economic, and political?

2. Gather the facts, seek descriptive information, and base its recommendations upon a continuing study of all available, relevant material?

3. Develop a written statement of purposes, focus on a problem or problems, and establish a target date for completion of committee assignments?

4. Have the support, or at least the encouragement, of the school administration and the school board in pursuit of its objectives?

5. Establish sound lines of communication with the public through the board of education, and, while the study is under way, send progress reports to the superintendent of schools or the board?

6. Devote a substantial amount of time to planning, in order that detailed study may be given to the background of the problem and to the nature and scope of the specific purpose or task for which the committee is being formed?

7. Set up appropriate plans for efficient committee operation, including limits of committee authority, time schedules for assignments, and periodic reporting to the public ?

Community Organizations

The school principal is faced with a plethora of community groups, all of which have some potential for contributing to school and community improvement.

The types of community organizations, even in small towns, include the following; professional, civic, labor, cultural, ethnic, fraternal, industrial and trade, and religious. There are also social clubs, occupational clubs, study groups, foundations and institutions, etc.

In organizing a program for strengthening school–community relations through community organizations, the school staff might well consider (1) what the school needs to know from community groups, and (2) what community groups need to know from the schools.

Because the school is basically a democratic institution, reflecting community aspirations and needs, certain areas of information should be provided by citizens to the schools. These areas include:

1. Educational goals and aspirations
2. Educational needs
3. Evaluation of school accomplishments
4. Relative satisfaction with the school system
5. Needed improvement and/or change
6. Problems and conflicts
7. Community resources available for educational purposes
8. Nature and extent of information about education and schools

The school, in turn, bears a heavy and continuing responsibility to inform citizens about its condition, needs, and accomplishments in order that citizens can make intelligent judgments regarding school matters. Such information includes:

1. Role of education in the society of the future
2. Values of education
3. Instruction and instructional services
4. Long-range curriculum planning
5. Status of teacher preparation
6. Fiscal information and long-range financial planning
7. Long-range school construction plans
8. Transportation, school lunch, and other auxiliary services
9. Education as an investment
10. Role of educational research and development

Citizen concern for better schools has probably grown more in recent years than at any other time during the past century. Citizens realize that the quality of education their children receive is in large measure determined by their understanding and support of schools. They are showing a growing awareness that science and technology, in the forefront of daily events, are the products of education. And they are increasingly demonstrating their recognition that the very survival of American democracy depends upon well-supported public schools.

In light of the increasing sophistication of citizens regarding the role of the school in American society and the continuing need to improve it, alert educators must constantly review the nature and extent of their efforts to help community groups serve as active partners in appropriate activities to strengthen school–community relations.

WORKING WITH THE HOME

At home, the teacher's work and the activities of other school personnel is a frequent subject of family conversation. A sound instructional program and a well-run school will be reflected in the reports a parent receives from his child.

School to Home

To maintain public support for the school as an institution and to increase citizen understanding, school staff members should make reasonable efforts to help both pupils and parents enlarge and deepen their knowledge about school affairs.

Home visits. Some schools have developed home visitations on a highly organized, systematic basis. Home visitations are time consuming and, in some cases, expensive. They require that school staff members extend themselves in time, effort, and energy. They can be frustrating— no teacher, for example, can know in advance what his reception will be when he knocks on the door of a home.

But experience has shown that the additional effort involved in getting to know parents and the home environment can be most rewarding to a teacher and other school staff members. Such visits add an important dimension to the stock of knowledge that the staff members possess about their pupils—knowledge that is essential if pupils are to be treated as individuals.

Some guidelines for home visits follow:

1. Obtain parents' permission to visit at a specific time and be aware of the extra work and concern your visit may cause.
2. Assure the pupil that your visit is intended to be a helpful one and that your intentions are friendly.
3. Inform the parents of the favorable characteristics of this child— and do not confine yourself to the child's academic status.
4. Invite parents' help, and assist them in understanding that you are partners in the child's education.
5. Always leave the parents on a positive note and invite them to visit the school, and to participate in school-sponsored affairs.

Homework. A recent research study by the National Education Association showed that 75 per cent of the elementary and secondary schools surveyed have boosted the amount of homework assigned in recent years. That trend means additional problems regarding relations with the home which teachers must prepare themselves to deal with.

In considering the potential difficulties that an inordinate or irrelevant type of homework can cause, the following criteria are suggested as meeting the standards of sound homework assignments, according to the Fresno City Unified School District:

1. Does the homework serve a valid purpose?
2. Is it well within the capabilities of the students?
3. Has the class been thoughtfully motivated for the work?
4. Does the assignment grow out of school experience?
5. Is the work related to children's interests? Is it interesting?
6. Does it extend the children's fund of information?
7. Is the work adapted to individual needs, interests, and capacities?
8. Are pupils entirely clear about what they are to do?
9. Can they do the work without the help of parents or others?
10. Is the assignment a reasonable one in view of pupils' home conditions?
11. Does it minimize the temptation to copy information?
12. Can it be evaluated fairly and/or be used in the daily program?

A recent issue of *It Starts In the Classroom*[2] suggests the following examples of good homework assignments:

1. Assembling materials for a notebook
2. Making charts, maps, or pictures
3. Practicing skills in arithmetic, reading, and grammar
4. Making notes for oral or written reports
5. Writing stories, themes, or poems
6. Watching a TV program or listening to a radio program with a definite purpose in mind
7. Playing word games, number games, other games that increase learning
8. Writing up an experiment or lab exercise
9. Constructing models
10. Outlining a topic
11. Reading for information
12. Reviewing for a test

[2] *It Starts in the Classroom,* National School Public Relations Association (Washington, D. C.: March, 1966), p. 3.

13. Studying spelling words
14. Writing a summary

Home to School

School staff members cannot expect parents to attend school-sponsored functions automatically. To be sure, parents usually can be depended upon to attend a school function in which their child is participating. However, alert school administrators endeavor to stabilize school–home relations through meaningful programs so that parents will look forward to attending school-sponsored functions.

Open house. The open school house has become the most widely accepted means of acquainting the community with its schools. Therefore, it has become a part of the observance of American Education Week in most school districts and is well supported by community groups and education associations.

When citizens of a community can actually see their schools at work, they derive a lasting impression of the operation of the school, the classroom procedures, the results of educational efforts, and the problems faced by students and teachers.

A well-planned and well-executed open house can make the community feel that its schools are performing a valuable function and performing it well. It can give the taxpayers pride of ownership in their schools when they see how their money is being invested to create the best possible education for every child.

In addition, an open house program can show parents the latest teaching methods and tools and the importance of such facilities as the school library, the instructional materials center, language laboratories, and many other things about which citizens are curious but which they have no direct opportunity to see except through this program.

This type of event provides students with an opportunity to display their work and to show some of the results of their schooling. Winning praise from parents and other adults can give the child a feeling that school is a worthwhile experience and can encourage him to do his work consistently.

The benefits to be derived for staff members, parents, and other school patrons are enormous. A successful open house results in heightened community interest in the teaching profession and teaching conditions. Such interest can be the basis for increased community support for smaller classes, better facilities and equipment, higher and more equitable teacher salaries, and the like.

Pupil displays. One method of insuring that parents will better understand the instructional process is to provide them with opportunities to see displays of the schoolwork of pupils.

Pupils derive much satisfaction from the preparation of well-developed displays, and public showings encourage them to do high-quality work.

Display subjects and locations are almost endless. Clothing and drapes made by home economics pupils have been displayed in store windows, in auditorium foyers, and at the gates of athletic fields. Textbooks, mathematics papers, themes, and artwork have been displayed in gymnasiums during an athletic event, at PTA meetings, and at community-sponsored activities. Other schools have displayed the work of pupils and instructional equipment in almost every subject matter field on parade floats, in beauty parlors, and in skating rinks.

REACHING THE DISADVANTAGED PARENTS

The vital importance of the home in shaping the educational attitudes and behavior of the child is generally recognized. *What happens or does not happen to the child at home largely determines what kind of pupil he will be in school.*

School, after all, occupies a relatively small portion of the total time and attention of the child. Most of his time—his weekends, holidays, summer vacations, and, of course, the formative preschool years—are spent under the influence of his home and neighborhood.

In light of the great weight of evidence that the intellectually and culturally restricted home life of socially disadvantaged children places heavy obstacles in their path for succeeding in school, many believe that *inner-city schools should make extraordinary efforts to assist parents in overcoming such obstacles.*

Educational Environment of the Home

As part of the current widespread effort to improve and broaden the educational opportunities of socially disadvantaged children, the educational environment of disadvantaged homes, as contrasted with more privileged ones, has come under increasing scrutiny.

Disadvantaged homes typically lack the large variety of objects, utensils, toys, pictures, books, and other reading matter that serve to stimulate language development and verbal functioning in children. Such children are not spoken to, except with sharp commands; adults spend little time reading with these children, and even the example of a reading parent is often absent in such homes.

As a result of growing up in an unstimulating and nondemanding intellectual environment, disadvantaged children are usually overwhelmed by exposure to learning tasks in school that exceed their prevailing level of cognitive readiness. Lacking the necessary background of knowledge and the motivation to succeed in school, preconditions to efficient learning, such

children lose confidence in their ability to learn. They become increasingly demoralized in the school setting and disengage themselves from it, psychologically at first, and then physically, as soon as it is legally permissible for them to do so.

Basically, the socially disadvantaged child, unlike his middle-class counterpart, finds the school setting radically different from the life he has lived at home. Whereas middle-class parents instill in their children the concept of school and the teacher as resources for learning, disadvantaged parents formulate a different kind of expectation for their children.

Basically, middle-class parents prepare their children for school by reminding them that they are going to school to learn, that their time is to be spent mostly in classrooms with other children, and that any questions or any problems that they might have should be referred to their teacher for assistance. In contrast, working-class mothers tend to tell their children that while they are in school they must behave. The first day at school they should be "good," which means that they should do just what the teacher tells them to do.

School–Home Cooperation

The cognitive and motivational handicaps that burden socially disadvantaged children in school result largely from their intellectually restricted home and neighborhood life. What can the inner-city school do to help parents prepare their children for the school experience, and to help parents reinforce and support the educational efforts made by school staff members in behalf of their children?

Some promising approaches for bringing about a working alliance of parents and teachers as part of a broad-gauged effort to improve the educational opportunities of socially disadvantaged children follow.

In-school activities. Many culturally disadvantaged parents have had a limited education, are semi- or unskilled laborers, and are barely literate. They are self-concious about their attire, speech patterns, and undeveloped social skills. As a result, they are often reluctant to visit the school and they consider an invitation for a conference with a member of the school staff as a summons for discussion of their child's behavioral or academic difficulties. Typically, such parents are highly reluctant to intervene with school authorities on behalf of their children, and are often suspicious— even hostile—toward school personnel.

In an elementary school in Detroit, a "special class contract" binds the parents to work closely with the teacher on behalf of their child. A teacher–parent conference is arranged when a teacher determines that remedial instruction for a school child is needed. The principal sends the parents a notice informing them that their child would benefit from remedial classes, which are held twice each week after regular school hours.

The bottom half of the notice lists alternate hours and days of the week for an appointment with the teacher.

If the parents consent to have their child participate in the program, the teacher arranges for a conference, at which time he explains the purpose of the special class contract. According to the contract, the parents agree that if the child is accepted in the special class, they will make certain that he attends regularly. Parents must also agree, according to the contract, "To help my child at home as asked by the teacher." The contract concludes, "I understand that if I do not fulfill the above agreement, my child will be dropped from the class."

During the parent–teacher conferences, which are scheduled on a regular basis for the duration of the remedial instruction program, parents are encouraged to: (1) read daily to their child; (2) listen to their child read; (3) insure that the child has pencils, paper, a notebook, and a dictionary for home study; and (4) provide a quiet, well-lighted study area in the home for study and reading. Parents are constantly reminded that if they show that they value school achievement, their child will likewise value it.

Out-of-school activities.   Disadvantage parents often do not provide their children with a broad range of intellectually stimulating opportunities outside the home and neighborhood, opportunities which more privileged parents provide their children at an early age. The disadvantaged adult seldom emerges from his neighborhood confinement. He is often psychologically and physically restricted to its circumscribed area.

At a junior high school in Philadelphia, excursions to a variety of places are planned, conducted, and evaluated with the cooperation of the parents. Working together with school–community coordinators, parents play an important part in planning Saturday bus trips. Visits are made to places of historical interest, museums of art and science, industrial plants, food distribution centers, airports, parks, farms, housing developments, and libraries. At planning sessions before the trip, parents are told what to expect while in transit and at the destination. The principal of the school observed: "We wanted the parents to participate, to feel a part of what was going on, and to actively share the experience with their children. We didn't want them to serve as glorified baby-sitters."

The school–community coordinator noted that parents seek information about proper dress and about procedures in ordering from a menu and tipping in a restaurant, and ask for guidance in a variety of social situations unfamiliar to them. The coordinator of the program pointed out that the bus trips offer some parents the first opportunity they have ever had to eat a meal in a restaurant with their families. Parents are encouraged to attend museums and libraries in the city with their children. "Most of them didn't know that there was no fee required to attend public places such as museums," observed the principal. "Before the trip, they were uneasy about

their attire, about saying something inappropriate. But after the initial experience and the satisfactions derived from it, they were eager to visit another place of interest. Before long, they were making family trips to the city on their own."

In addition, parents are sent a weekly flier entitled "Enrichment Opportunities for You and Your Children," which includes a list of suggested places to visit in the city for enrichment purposes. The flier names cultural, educational, and recreational facilities available to the public. Parents are encouraged to broaden and enrich their experiential backgrounds by joining the children on trips to the places listed in the fliers.

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22

Evaluating the Program

In many communities, intermediate schools will be an innovation in public school organization. Consequently, there will be many questions in the minds of teachers, students, boards of education, school administrators, the PTA, and the general public as to whether this new organization is serving the purpose for which it was established. Even if an intermediate school is not an innovation, like all other organizations in the educational system it will be judged by those who have a genuine interest in the education of children and youth and by others who have some personal interest in the schools of the community. Only conscious and systematic evaluation of a local intermediate school program will provide valid and otherwise worthwhile information to questions raised and concerns held by interested persons.

The leadership for conscious and systematic evaluation must be given by the principal and his staff. They are in the best position to understand the current program and goals of the school, to know what is going on in the school, and to utilize the results of evaluation to provide better educational programs for students.

Clark, Klein, and Burks stressed the importance of the role of the school staff in the process of evaluation as follows:

> From time to time each curriculum should be evaluated by an outside agency such as the state department of education or a regional accrediting agency. Such evaluations may be salutary, but to be of most value, curriculum evaluations should be self-evaluation by teachers and administrators most concerned in view of the stated goals and philosophy of the school.[1]

[1] Leonard H. Clark, Raymond L. Klein, and John B. Burks, *The American Secondary School Curriculum* (New York: The Macmillan Company, 1965), p. 428. Reprinted by permission of The Macmillan Company.

State boards and outside agencies can render useful service to an intermediate school by encouraging and assisting with school evaluation. The school staff, however, must be involved actively in a process of self-investigation, if the evaluation is to be of maximum value to youth and the community.

This chapter treats the meaning and importance of evaluation, types of evaluations, characteristics of adequate evaluations, evaluation procedures, and the use of evaluation tools. In addition, some ways to implement results are suggested.

WHAT IS EVALUATION?

Changing Concepts of Evaluation

The concept of educational evaluation has been influenced by a number of practices and thoughts, some of which may never be put into the proper perspective, or even recognized. Among the practices and thoughts influencing the concept of evaluation have been public interest in education, increased knowledge on the part of the general public, and the taxpayers' willingness to spend money for education. Nothing, however, has affected changes in the concept of evaluation more than the thinking and activities of educators and psychologists.

The effect of their work and thoughts can be gleaned from the trend in measurement and evaluation through five decades described by Wrightstone, Justman, and Robbins.[2] These authors spoke of the decade between 1900 and 1910 as the time of the rise of testing, a decade characterized by the work of Joseph Rice, Herbert A. Simon and Alfred Binet, C. W. Stone, and S. A. Curtis whose works included measurements of achievement in spelling, of intelligence, and of achievement in elementary arithmetic. The second decade of the twentieth century, 1910 to 1920, was termed the "development of tests" decade; it was marked by the development of some of the early standardized tests of intelligence and achievement and the struggle to get them accepted by both educators and the public. The third decade of the century, 1920 to 1930, was the age of the extension of standardized testing of achievement and intelligence, which was accentuated by the need to classify personnel during World War I. It was also during this decade that such personality tests as the Rorschach and other projective techniques, inventories of interests, and attitude scales began to appear. The decade 1940 to 1950 was labeled by Wrightstone and his colleagues as the decade of the extension of measurement and evaluation, which was marked by a maturing and refinement of techniques of measurement and evaluation

2 J. Wayne Wrightstone, Joseph Justman, and Irving Robbins, *Evaluation in Modern Education* (New York: American Book Company, 1956), Chap. I.

techniques and their broader use to evaluate educational experiences and activities.

The history of educational appraisals, measurements, and evaluation shows that educational objectives have changed from teaching the "3 R's" to helping students grow intellectually, socially, physically, and emotionally. The techniques and tools to evaluate pupil progress have changed along with the goals and objectives. The emphasis of evaluation has changed from quantitative measurement of the acquisition of subject matter and verbal exchanges of information by educators to both quantitative and qualitative appraisals, with participation by all who are affected by the educational program—the school staff, parents, students, and general public.

Measurements and Research

The terms "measurement" and "evaluation" are often used synonymously, even though they do not have the same meaning in current educational appraisal. Measurement is only one technique used to evaluate learning and educational programs. It is a very important technique, however, because without it educational evaluation is almost impossible.

Measurement pertains to quantity or amount, rather than to quality or qualitative value. It indicates how many or how much. Measurement is useful in determining the extent to which academic facts have been memorized or the degree to which certain skills have been mastered. Standardized achievement tests, certain paper and pencil tests, and other instruments that indicate results in numbers and norms that are descriptive and well defined are measurements that serve a definite purpose in evaluation.

Research becomes useful in the evaluation process when the information desired cannot be acquired through other evaluative techniques due to prohibitive cost and lack of personnel. Research may take the form of a thorough, highly scientific, long-term investigation carried on by groups or individuals who are skilled in research methods and techniques; it may also involve classroom teachers, other school staff, and research specialists.

Current Concepts

The concept of evaluation currently held by those who operate our schools is a product of current goals of education, up-to-date knowledge of how children and youth learn, current knowledge of the influence that experience and environment bear upon the learner, and existing educational programs. Current goals of education for a vast majority of our schools include much more than dispensing the subject matter and teaching subject matter skills through drill. Among other objectives, they include the development of attitudes, interests, ideals, and ways of thinking. The concept of

evaluation is influenced by an awareness that learning takes place through experiences that are received and perceived through all senses, including those that affect one's emotions and feelings, and that the learner is the product of his experience within his environment. Educational programs in this sixth decade of the twentieth century include many traditional curricular activities as well as extracurricular activities.

Today, the goals of education are more inclusive than they were in the past. As a result, evaluation includes the broader areas of the development of children and youth. Investigation into broader areas of human development necessitates additional tools of evaluation. Among these additional tools are interviews, discussions, and observations. In 1950, Wrightstone described the current concept of evaluation as follows:

> *Evaluation is a relatively new technical term, introduced to designate a more comprehensive concept of measurement than is implied in the conventional tests and examinations. Distinction may be made between measurement and evaluation by indicating that emphasis in measurements is upon single aspects of subject-matter and achievement in specific skills and abilities, but that emphasis in evaluation is upon broad responsibility changes and major objectives of an educational program. These include not only subject-matter achievements but also attitudes, interests, ideals, ways of thinking, work habits and personal and social adaptability.*[3]

Educators now recognize evaluation as a process that is continuous, comprehensive, and inclusive. It encompasses not only those aspects of the school that affect children directly but also those that affect them in an indirect manner, such as effectiveness of teachers, adequate facilities, adequate instructional materials, and school and community climate. In 1956, Wrightstone, along with Justman and Robbins, described modern evaluation as follows:

> *Modern evaluation differs from the old forms in several ways. First, it attempts to measure a comprehensive range of objectives of the modern school curriculum rather than subject-matter achievement only. Second, it uses a variety of techniques of appraisal such as achievement, attitude, personality, and character tests. Included also are rating scales, questionnaires, judgment scales of products, interviews, controlled observation techniques, sociometric techniques, and anecdotal records. Third, modern evaluation includes integrating and interpreting these various indices of behavior into an inclusive portrait of an individual or an educational situation.*[4]

[3] Wayne J. Wrightstone, "Evaluation," *Encyclopedia of Educational Research* (New York: The Macmillan Company, 1950), p. 403. Reprinted by permission of The Macmillan Company.

[4] Wrightstone, *et al., Evaluation in Modern Education, op. cit.,* p. 3.

CHARACTERISTICS OF AN ADEQUATE EVALUATION

Evaluation that serves a useful purpose must meet the essential requirements of sound research and appraisal. Sound research and appraisal must possess certain characteristics, with respect to both the tools used and the enterprise as a whole. Like any adequate appraisal, educational evaluations must be comprehensive, qualitative, quantitative, and objective. In addition, educational evaluation carried on for the purpose of improving educational programs must be continuous and cooperative. The two latter characteristics greatly influence the extent to which evaluation findings are used to improve the educational program.

Objective Evaluation

Adequate evaluations can be made only through collecting, analyzing, and interpreting data that have been derived in an objective manner. Therefore, all programs of evaluation must be approached with an open mind. Regardless of his relationship with the school, each participant—parent, teacher, pupil, administrator, board member, or layman—should be determined to "let the chips fall where they may" regardless of personal interest or feeling. Emphasis must be placed on an objective search for the truth in order to improve the educational program. This is no time to "grind axes," foster pet programs, or look at one side of issues. Such reactions inhibit thinking and reduce the benefits that may result from the evaluation. Suppose, for example, that a teacher is very much opposed to the scheduled study periods; he is apt to accept only those data that tend to support his personal point of view. Similarly a board member who considers band a frill in the curriculum might find it difficult to act as a member of the team at work to provide a well-balanced program of activities for the youth of the school. Unless these participants can shed their biases, they should not serve on the evaluating team.

Cooperation

Successful school evaluation is a team effort. The potential team workers are classroom teachers, guidance counselors, supervisory staff members, resource teachers, administrators, school nurses, parents, and pupils. In some studies, the cooperation of the PTA and community service agencies are valuable. Whatever the makeup of the participating groups, the evaluation must involve the cooperative development of research designs, cooperative selection of procedures, cooperative analyses of data, and cooperative drawing of conclusions.

The team's action should reflect a genuine belief that each member has

worthwhile contributions to make in accordance with his experience and training and that each contribution is worthy of consideration. For example, contributions made by students and parents should receive the same type of consideration given those made by members of the school staff or board members. There must be "give" and "take" among members. Choices that are made and decisions that are reached must represent the best thinking of the group. Participation must be democratic in procedure, with each person sharing equally and cooperatively in the opportunity and responsibility to make his best contribution to the evaluation process.

Continuous Evaluation

There are two important concepts of continuous evaluations. One focuses attention on the importance of evaluation as it serves to determine the current worth of educational goals and philosophy, and the extent to which they are being met. The primary purpose of this type of evaluation is to appraise long-range goals through an intensive major study, which may or may not involve the total school program.

There is no "final" point at which educational evaluation is complete. Evaluation is a continuous function rather than a product because human beings are capable of infinite improvement and because cultural, environmental, and technical changes are constantly taking place:

> *Succinctly, some form of evaluation is inherent in teaching, learning and in living; it is incapable of producing a "final" result, however, because it is concerned with behavior, and behavior is, in turn, continually emerging, altering and finding new direction.*[5]

The second concept defines continuous evaluation as a process that is taking place in the classroom, throughout the school building, and on the school grounds. It emphasizes the role of day-to-day, situation-to-situation interaction between and among staff members and pupils. Little distinction is made between teaching tools and evaluative tools. Test results and other types of evaluations have significance as both teaching and evaluative tools.

Comprehensive Evaluation

Valid evaluation must include the gathering of sufficient pertinent information and other evidence to justify conclusions drawn and recommendations made. Barr, Davis, and Johnson point out, "One of the most important requirements for appraisal and research is that all of the essential elements in a problem chosen for study be taken into account in making the inquiry."[6]

[5] Harold G. Shore and E. T. McSwain, *Evaluation and the Elementary Curriculum* (New York: Holt, Rinehart & Winston, Inc., 1951), p. 58.

[6] Arvil S. Barr, Robert A. Davis, and Palmer O. Johnson, *Educational Research and Appraisal* (Chicago: J. B. Lippincott Co., 1953), p. 10.

School evaluation must be comprehensive if generalizations are to be conclusive and recommendations valid and logical. The evaluation should be comprehensive in three things; (1) data, (2) aspects of the program under appraisal, and (3) staff and community participation.

Adequate support for generalizations that are made with respect to progress toward accepted goals must come from appraisal of several related school activities and offerings. No aspect of the program can be evaluated sufficiently in isolation. Each must be appraised in the light of and along with several related facets of the total program. For example, it is conceivable that the health, physical education, and hygiene programs of intermediate schools are designed to improve attitudes and understandings of youth and children and formation of appropriate health habits. These three offerings must be evaluated simultaneously to provide sufficient evidence of progress toward the common goal.

ORGANIZATION FOR EVALUATION

The organizational patterns and procedures discussed in this chapter are based on the assumption that the total intermediate school is to be evaluated, but organization of personnel is necessary even if the objective is only to evaluate some aspect of the school, such as pupil services, programs, administration, supervision, or facilities. Organization provides direction, responsibility, authority, and controls. Several guidelines are used in establishing organization. They are: (1) involve all members of the school staff, (2) include representative persons in the community, (3) center authority and responsibility, (4) recognize and observe the difference between responsible and advisory powers, and (5) involve outside specialists.

Involving the Total Staff

Evaluation should be looked upon as an in-service training program for the school staff. To deny any staff member the opportunity to participate denies him an opportunity for professional growth. Although the principal and other administrative and supervisory staff must provide the motivation and leadership for school evaluation, the staff, including professionals and nonprofessionals, must be involved. Staff involvement is essential because those who have had a voice in the decision-making process are most likely to make a genuine effort to abide by the decisions that are made.

The effectiveness and results of school evaluation have been found to be directly related to the spirit and intelligence with which staff members evaluate their own work. Many intermediate staff members will not be interested in or qualified for educational evaluation. Their participation without training and motivation will produce results that will have little validity. Therefore, the principal and his administrative staff must attempt

to motivate all staff personnel to the point where they will participate willingly, intelligently, and extensively.

Not only must the principal of an intermediate school motivate the staff to participate, he must also initiate and supervise a training program to prepare members of the staff for the part they are to play. The best results with respect to motivation and training can be accomplished through a pre-evaluation in-service training program that might extend over a period of three months, a semester, or a year, depending upon the initial enthusiasm of the staff and their previous experience with school evaluation. The training program should include the values of evaluation, both personal and for the successful accomplishment of school objectives. It should also include an introduction to materials, familiarity with tools, and techniques of evaluation along with procedures to be followed. Other preevaluation activities that may be found helpful in providing information and developing enthusiasm for the appraisal include discussions centered around selections from a prepared bibliography of materials that deal with the evaluation of elementary schools, middle schools, and junior high schools. Discussions with personnel from other schools that have been previously evaluated are also worthy activities.

Staffs with little or no experience at school evaluation might need the services of a consultant with unusual training and knowledge in the field of school evaluation. Such personnel can be located through school rating and evaluation associations, the National Education Association, the National Association of Elementary School Principals, the National Association of Secondary School Principals, and the U. S. Department of Health, Education, and Welfare. District and state boards of education may also be able to give assistance in locating acceptable consultants.

Once the entire staff has been sufficiently trained and motivated, evaluation should be begun promptly, with most members of the staff participating on committees in two areas: (1) an area that cuts across the entire school, such as school philosophy and objectives, guidance services, and student activities; and (2) a subject matter area.

Including Representative Persons in the Community

When the school staff has been sufficiently informed, trained, motivated, and organized for evaluation, lay citizens from the community should be invited and encouraged to participate. But before lay participation is invited, the principal and his staff should make decisions concerning:

1. The role of lay participants
2. At which stage of the evaluation process to invite lay participation
3. The best source of the invitation
4. The manner in which the invitation will be extended

Among those who can be of valuable service and make invaluable contributions are specialists in subject matter fields, business administrators, private and parochial school personnel, civic leaders, welfare workers, and court specialists. There are nonprofit agencies, such as those that operate clinics or employment services or that offer training for out-of-school youth, who can help. Politicians and critics from the press are also among those whose services might be used to advantage.

Proper representation from the community is essential to any organization for school evaluation. Not only will the school profit from their contributions as members of an evaluation team, but in addition many agencies have essential data available that would require considerable time, effort, and money to collect. As a matter of fact, some outside groups and agencies are in a better position to collect and compile data than the local school or the school district. For example, personnel from the IBM Corporation might suggest more efficient and economical ways of processing data. Also, some business firms that use data processing machines may lend the use of their equipment and personnel to the evaluation project.

Another reason for inviting laymen to participate is to bring a variety of opinions and experiences to the project. Therefore, those who are critical and not too friendly toward the school must not be overlooked in the search for participants; neither should those who are friendly supporters. To insure that both sides of issues are presented, the staff must invite members of the "in group," those who are familiar with the existing program; the "out group," those who know nothing or very little about the existing program; the "pros," those who are in favor of the current program and believe an adequate job is being done; and the "cons," those who are familiar with the existing program or think they are and believe it to be inadequate. The variety of experience, opinions, and information brought to the evaluation project will insure more valid and reasonable evaluations and recommendations.

It is not always necessary to appoint laymen to all committees. Certain areas of an intermediate school lend themselves to lay evaluation better than others. The major areas such as school plant, staff, guidance services, and counseling can be effectively evaluated by laymen. In those areas laymen may well play a leading role. Assigning laymen to committees on philosophy and objectives may have value as a means of acquainting citizens with the aims and functions of the school as well as allowing them to make important contributions to the formulation of philosophy and objectives. Laymen may make quite significant contributions to the evaluation of curriculum content and organization, but the significance of any contribution they could make to instructional methods and procedures is questionable.

In some communities lay participation may be invited as soon as the situation has been selected, in others the invitation may be extended in time

for lay participation in preevaluation planning, and in still others the school staffs have found it necessary to delay the invitation until nuclei of all committees have been formed. Each local school staff must decide at what point to invite outsiders to participate and issue the call at that time.

The source of the invitations will be determined by the source of the evaluation project. If the project is initiated by the board of education is seems logical for invitations to be extended by the board, or at least for the board to submit the names of persons it wishes to participate. On the other hand, if the school initiates the appraisal project it seems logical for the final decisions as to which laymen will participate to rest with the school staff.

Regardless of the point at which the invitation is extend, it may be extended in several ways by the board or by the local intermediate school. The school staff might ask the PTA to select lay participants or may pick them themselves. Letters may be written to the chief officers of private schools, chambers of commerce, civic organizations, governmental agencies, and professional organizations asking each to submit the names of one or more persons, from which appointments will be made. The board of education might appoint lay personnel to committees or submit a list of names to the school staff with instructions that selections should be made from the names submitted.

Centering Authority and Responsibility

As has been pointed out, it is important that the evaluation team should consist of the school staff and laymen of varied interests, training, and occupations. It is also important that each member of the team clearly understand where his authority and responsibility lie. This is especially true because of the wide differences of interest and backgrounds which the members of the team will bring to the evaluation endeavor.

The intermediate school principal, as head of the school, is responsible for everything that goes on in the school. Therefore, the ultimate authority and responsibility must be placed with him. Obviously, the principal cannot personally direct and supervise every detail in connection with the total evaluation project. Considerable delegation of responsibility and authority must take place if the principal is to have time for thinking, planning, and carrying on his regular day-to-day operation of the school. When and where to delegate responsibility and authority will present problems that will require the best judgment of the school administrator. The solutions to the problems will vary with the school and situation. However, it seems feasible that a steering committee, in which considerable authority and responsibility can be centered, would be appropriate and quite helpful. The delegation of responsibility and authority to the steering committee, however, should not

be interpreted as relieving the principal of his ultimate responsibility and authority. The principal should still be responsible for the performance and results of his assignment.

Recognizing and Observing the Differences
Between Responsibility and Advisory Powers

A major problem of effective teamwork stems from a failure to specify roles. A clear understanding of the difference between responsibility and advisory powers will do much to avoid confusion and to result in a smoothly functioning evaluation team. When individuals and groups know in advance what their sphere of operation and influence is they are in a better position to avoid waste of time and energy and many of the frustrations that accompany disappointments.

Responsibility carries with it some need to act or to order an action to be taken. When a person or group is assigned a task that requires action, the authority to act or cause action should be delegated to that individual or group. For example, if the steering committee is given the responsibility of appointing subcommittees, it should be delegated the authority to accept or reject those persons who are recommended for membership on committees.

In contrast to responsibility, advisory powers carry no order or need to act or have action taken. The function of persons and groups operating in an advisory capacity is to explain, suggest, or recommend. Their duties are completed once they have given information and opinions. As was pointed out in Chapter 13, consultants in the main have no responsibility for implementation or final actions. Their powers are advisory in nature.

Differentiation between responsibility and advisory powers are not as obvious and clear-cut as might be surmised from this discussions. Those serving mainly in an advisory capacity will at some time need the authority to make requests for services or information, even though the authority is not precisely specified. A case in point is the responsibility that a consultant has to provide wise counseling and to make recommendations based on intelligent judgments. He must have the authority to obtain information and to examine reports and records. The key to a successful evaluation lies not only in the differentiation between responsibility and advisory powers, but also in the understanding on the part of each member of the team as to when and by whom each type of function is to be exercised. To provide opportunities for this understanding, the duties of each person and group should be spelled out as clearly as possible. Most of all, the success of the program will depend upon the extent to which responsibilities and advisory powers are observed by team members.

Observance of responsibilities and advisory powers require mutual respect and confidence among groups—respect for the contribution that

each has to make, faith in the ability of individuals and groups to successfully perform their assigned duties, and respect for the right of individuals and groups to decide what cooperation from others is necessary for the successful fulfillment of their duties. The observance of responsibilities and advisory powers also depends upon the extent to which each individuals of the team associates himself with the total evaluation project and the extent to which he can comprehend the total operation. It is up to the staff of the intermediate school to help each participant see the total evaluation program and to feel somewhat responsible for the final results.

Involving Outside Specialists

Major evaluation must utilize the services of consultants in the various fields that are being evaluated. Consultants may be secured from the sources that were mentioned on page 505. The special role of consultants has been discussed in Chapter 13. The discussion at this point is made with reference to utilizing consultant services in total school evaluation.

Unfortunately some problems arise when a consultant is employed. One of these problems is related to the status of the consultant. Is he merely at the call of the staff, principal, or committee, or does he have distinct responsibility for his special field and authority commensurate with this responsibility? In case of disagreement, whose viewpoint shall prevail, that of the school staff, the committee, or the consultant? The consultant must not be made to feel reduced to the role of a handyman who is there to run errands, to furnish supplies and materials, and to offer ideas only when requested. Another problem centers around the attitude of the staff and committee members toward the consultant. They must not feel that the views of the consultant carry weight out of proportion to theirs or that his recommendations carry the weight of administrative authority. Therefore, staff members, committee members, and consultants must understand the precise role that the consultants are to play.

EVALUATION PROCEDURE AND CRITERIA

The procedure for school evaluation is quite similar to the procedure for evaluation and research in any other field. It includes selecting the situation, planning the design (organization), selecting the tools, gathering the necessary data, analyzing the data collected, drawing conclusions, and making recommendations.

Selecting the Evaluation Situation

The principal and his staff must decide what it is that they want to evaluate. In their deliberations prior to undertaking the project, some

germane questions should be answered. Will only certain phases of the program or the total school program be evaluated? If partial evaluation is decided on, what part? What is to be the extent of the evaluation? Can the school provide the leadership for the evaluation? Are necessary resources available to make a valid evaluation? After all questions are considered, is the undertaking feasible? Will the results be of sufficient worth to justify the output?

The situation may be selected from among some needs or weaknesses recognized by a staff member, public criticism, or a simple desire to know what progress is being made toward accepted goals. Poor pupil performance might lead the physical education staff to suspect that the health and physical education program is weak. Poor performance by students passing from the elementary school to the junior high school might lead both the school staff and the public to have doubts about the total educational program of the school. A wide discrepancy between potential and academic achievement might suggest a need to update some phase of the program.

Any situation that raises a need for evaluation, where evaluation can be done with a valid degree of accuracy, and where evaluation is economically and educationally feasible, is a good situation for evaluation.

Planning the Evaluation Design

There is no one way to evaluate a school. Schools differ. Communities differ. People differ. Situations and problems vary. Each intermediate school working with parents, pupils, its board of education, and consultants must determine how the job is to be done. Each evaluating team, however different from the others, will need an evaluation design. Some organizational arrangement is necessary to the successful completion of a project. The design must consist of committees that function both individually and as part of the evaluation team. The size, number, and makeup of committees will be determined by the job to be done. For the purpose of illustration it will be assumed that the entire school situation is being evaluated. In this case, the design must be headed by a steering committee, followed by subcommittees to function in each area. Area committees must include administration, supervision, instructional materials, services, guidance, health, physical activities, each subject area, the school plant, public relations, and community activities.

The steering committee may consist of approximately fifteen people, keeping a balance among teachers, administrators, subject matter specialists, PTA members, citizens with and without pupils in school, consultant specialists, and social and recreational workers. Some situations may warrant a small and more professional steering committee consisting of three to five members. Such a committee may be composed of the principal, the vice-principal, a supervisor of instruction, a counselor, and a classroom teacher.

The function of the committee is to provide overall planning and direction for the evaluation. The usual functions of a steering committee are: (1) to plan and supervise the entire project; (2) to determine the number and composition of subcommittees; (3) to set up the time schedule; (4) to establish methods and schedules for subcommittee reports; (5) to anticipate needs for and provide services and materials for subcommittees; (6) to be responsible for organizing, preparing, and editing the final report; and (7) to present the report to the public.

Other established committees can serve to advise the steering committee and to execute the plan as directed by that body. Such additional committees might include advisory or project committees to make recommendations relative to certain definite areas; investigatory committees with the function of assembling and interpreting facts, but not formulating recommendations; and a coordinating committee to coordinate all activities toward the common objective. Like the steering committee, personnel on other committees should be balanced with respect to interests, training, and experience.

Some ideas of how to plan a design for evaluating the total school and its program can be gotten from a study of evaluative criteria[7] that was first printed in 1940, revised in 1950, and revised again in 1960, and from another study published in 1951.[8]

The general areas for investigation are as follows: (1) instruction; (2) school-plant, sanitation, and janitorial services; (3) instructional supplies and equipment; (4) the school library and library services; (5) school records; (6) the policies of the board of education, the administration of the school, and its financial support; (7) preparation of the instructional and supervisory staff; (8) the teaching load; (9) the pupil load; and (10) the educational program (accumulation of knowledge; development of, skills; improvement of understanding; development of interests, tastes, appreciation, ideals, and attitudes; and the function of these elements in a democratic society).

The designers of *Evaluating the Elementary School* present the following general areas for investigation:

1. Viewpoint—recognizing the value to be developed, citing evidences of violations or respect for stated values. Thinking through ways and means of more effectively realizing the values.
2. Functions—recognizing the functions of the school that contribute to the realization of values.
3. Program—identifying ways in which the program meets the functions of the school:
   a. Knowledge of children to be taught.

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7 *Evaluative Criteria* (Washington, D. C.: Cooperative Study of Secondary School Standards, 1960).
  8 *Evaluating the Elementary School—A Guide for Cooperative Study* (Atlanta, Ga.: Southern Association of Colleges and Secondary Schools, 1951).

    b. Scope of program—health, physical education and safety, basic skills, social living, asthetic appreciation, and creative expression.

    c. Organization for learning.

    d. Teaching–learning process.

4. Resources—determining the adequacy of material and human resources for carrying out the program:

    a. School plant.

    b. Facilities and materials.

    c. Community resources.

    d. Personnel.

    e. Summary.

    f. A look ahead.[9]

A study by Baker, *et al.*,[10] recommended the usual areas of investigation and the usual assigning of weights. The procedures recommended, however, are somewhat different. For example, in evaluating subject matter areas and the curriculum as a whole they recommended that the staff formulate a statement of guiding principles for each area of investigation and evaluate it against a checklist of items describing contents, methods, equipment and materials, and outcomes. Space is provided for the evaluating subcommittee or individual to list special characteristics of the area being evaluated. A similar format was recommended for general areas such as guidance services and library service. Checklists were designed to rate the staff with respect to numerical adequacy, educational leadership, duties, and functions. Other checklists were developed for lunchroom management, transportation of pupils, and community relationships.

Rating Procedures

There is no right or wrong way to rate or evaluate the intermediate school against stated goals and philosophies. Usually, prepared checklist items are studied and rated by the local school staff using a system of letters. If the condition or provision is present to an extensive degree, the letter "E" is used; if present to some degree or a moderate degree, "S" is used; if the item exists to only a limited degree or is missed and needed, then "L" is used. If what is described in the item is not present in the school but the need is questioned, the item is marked "M." If the provision or condition cannot be shown to be needed, it is marked "N."

After the checklists have been rated, the evaluations are marked. These evaluations are designed to give the school an opportunity to show the quality of important parts of the program. A five-point scale developed by combining two three-point scales is used. One scale refers to quality and the other refers to quantity. If the quantity is extensive and the quality excellent

9 *Ibid.*

10 James F. Baker, *et al., Elementary Evaluative Criteria* (Boston, Mass.: Boston University, School of Education, 1953).

the rating of "5" is assigned. If the quantity is moderately extensive and functions moderately well, the rating of "3" is assigned. If the provision is poorly made and very limited, or if it is entirely missing but clearly needed as judged by the philosophy and objectives and the needs of pupils, it is marked "1." Logically if the condition is extensive but of only moderate quality, or if it is moderately extensive but functioning excellently, the rating is "4." If the condition is moderately extensive but functioning poorly or is limited in extent but functioning well the evaluation is "2." The letters "a" and "b" are used with ratings "4" and "2" to show the combinations the evaluator had in mind.

It is recommended that each subcommittee have the responsibility of completing the self-evalution in the area assigned to it. This involves examining the guiding principles critically; making any modifications that seem desirable; collecting all data, exhibits, and explanations required for the area; marking each checklist item with the appropriate letter, rating each evaluation with the number that is judged to be correct; and reporting the results of the entire report to the entire faculty for modification and approval.

Suggestions for Design and Criteria for Evaluating the Intermediate School

It seems logical that the design and criteria cited above would suffice with sufficient adaptations for evaluating the intermediate school. While making necessary adaptations, the intermediate staff must keep in mind the goals of the intermediate school as an institution, the philosophy and objectives of the local school, and the organization of the school being evaluated. For instance, it can be noted that the designs and procedures cited above were developed for the rather conventional subject-matter-oriented elementary and secondary school. Therefore, they may not be adequate for evaluating the modern intermediate school, where subject matter barriers are broken down into areas of living or functions of life or in some other manner which tends to integrate learning. In such cases it would seem more feasible to form subcommittees to evaluate these areas instead of using the traditional subject matter areas.

Another factor to be considered is that children of intermediate school age have usually developed the basic academic skills but are not yet ready for the narrow specialized training of the traditional senior high school. It seems logical that the intermediate school must give consideration to establishing criteria that serve to evaluate the application of basic skills and knowledge, and the ability to think, make judgments, and become more socially and intellectually independent. Evaluations of the intermediate school should also investigate the ability of students to draw conclusions from facts, to use the scientific approach to social problems, and to make the proper adjustment to changing social situations. Criteria should be developed

that will put more emphasis on the development of youth—where are they?—rather than on methods, functions, and materials. While methods, materials, and facilities are important, outcomes are the crux of education.

If the staff has done an adequate job of defining goals in terms of behavior, much of the work of establishing criteria has been done. For example, if the staff has defined the goal of "developing social maturity" in terms of behavior such as: (1) sharing materials with others, (2) respecting the rights of others, (3) conducting oneself in accordance with the situation and accepted customs, and (4) being able to participate in group discussions without talking too much or being too shy to say anything, then these would be the criteria against which movement toward the goal of developing social maturity could be evaluated.

Selecting Evaluative Tools and Techniques

Selecting the situation for evaluation and organizing for work must be followed by selecting the tools and techniques with which to do the job. The choice of tools and techniques to be used in collecting data for evaluation is a very important task that must not be left to chance. Like any other tools, those used for educational evaluation are designed for many purposes and to be used in many ways. Therefore, care must be taken to assure that the tools and techniques selected fit the accepted goals of learning and measure with acceptable accuracy.

The selection of appropriate tools and techniques may be facilitated by the appointment of a project committee to study the tools and make recommendations to the staff. Logical appointees will include the counselor, one school administrator, one supervisor, and one or more teachers with some familiarity with both teacher-made and standardized tools. Unless the committee members are well acquainted with evaluating tools, consultant service should be made available. The committee and staff might follow the procedure suggested by Henry Chauncey and John E. Dobbin to select standardized tests:

1. The school develops a written statement of the kinds of learning it wants to test. This statement is made up of the goals of teaching mentioned earlier and usually contains as many as possible of the learning goals that are important in the curriculum, especially those difficult to measure with teacher-made tests.
2. Reference sources are studied in order to obtain as long a list of test possibilities as can be made, and reviews and professional critiques are studied. Half a dozen or so of the most promising tests are selected for further study on the basis of the preliminary search.
3. "Specimen sets" of the half-dozen tests are purchased from the publishers, containing all descriptions and manuals as well as single copies of the tests themselves.

4. Committees of teachers and supervisors then compare each of them with the list of learning goals they want to measure, question by question. The result is a complete and detailed analysis of the degree to which each of the tests fits the pattern of learnings the school wants to measure. This procedure amounts to a "trying on for size" of each test considered.

5. The publisher's manual for each test should explain who prepared the original tasks or questions, how the tryout was done and how well the tasks appear to have worked, how dependable the scores have been in other uses, what kinds of students were included in the comparison samples that support the test's norms, and practical aspects, such as how much time the test requires and how much it costs.

6. It is likely that several of the tests being considered have been built with care and that they cost about the same in both time and money. Among the tests that are appropriate in these practical characteristics, the school chooses the test that has the best fit with what the school wants to measure—as determined in the "trying on for size" described in step 4 above. It is more sensible to choose a test that goes beyond the specifications than one that falls short of them.[11]

Selection of teacher-made tests and other evaluation techniques should be made through a process similar to that utilized in selecting standardized instruments. It might be advisable to weight the selection committee heavily with classroom teachers and supervisors because of their familiarity with the instructional program and experience in the construction of teacher-made tests.

Whether the tool is standardized or teacher-made, its practicality must greatly influence final selections, for if the instrument has serious practical shortcomings in the intermediate school its usefulness is lost completely. Most authorities in the field of testing consider the following to be practical characteristics of evaluation instruments:

1. Cost—within the reach of the budget.

2. Convenient time units—within the attention span of those to whom the instrument is to be administered and within the limits of time allotted to the total evaluation project.

3. Ease of administration—materials needed, complexity of directions, and complexity of response activities.

4. Ease of scoring—scoring time, methods of scoring (hand, machine), and ability needed (professional or clerical knowledge and skill).

5. Ease and clarity of interpretation—ease with which information can be translated into answers to pertinent questions and meaningful comparisons.

11 Henry Chauncey and John E. Dobbin, *Testing: Its Place in Education Today* (New York: Harper & Row, Publishers, Incorporated, 1963), p. 71.

6. Acceptability—acceptance on the part of the team that the instrument provides pertinent information to a reasonable extent.

All available means of gathering pertinent data bearing on changes in behavior of children and youth in an intermediate school should be considered in the evaluation process. Sources of information or means of obtaining data will include standardized and teacher-made achievement tests, interest tests, interviews, rating scales, sociometric devices, school records, films, children's letters, creative writings, diaries, projective techniques, parent conferences, individual cumulative records, schedules, research studies, questionnaires, and observations.

The evaluation teams must be conversant with whatever tools and techniques are used. The teams must be aware of:

1. The advantages and disadvantages of instruments.
2. Their appropriateness for gathering specific kinds of information.
3. Procedures and techniques employed for maximum results.
4. How to construct those that must be teacher-made.
5. In the case of standardized tests, the population group for which they are intended.

There are many sources to which the team may turn for information about evaluation and tools and techniques. Among them are the *Mental Measurements Yearbooks;*[12] *The Encyclopedia of Educational Research;*[13] *Research in Education,* by Best;[14] *Evaluating Pupil Growth,* by J. Stanley Ahmann and Marvin D. Glock;[15] and *Testing: Its Place in Education Today,* by Henry Chauncey and John E. Dobbin.[16]

Gathering Data

Gathering data follows next in the evaluation procedure; it involves making use of the selected tools and techniques. Data should be collected in a systematic and accurate manner so that they will be free of errors and irrelevant information. Therefore, care should be exercised in the selection of personnel to administer tests and gather data through other media and techniques. The personnel best qualified to use each type of evaluation tool and technique should be selected, for individuals vary in their ability to use

[12] Oscar K. Buros, ed., *The Mental Measurements Yearbooks* (Highland Park, N. J.: The Gryphon Press, 1938, 1940, 1953, 1960, 1965).

[13] C. W. Harris, ed., *The Encyclopedia of Educational Research* (3rd ed.) (New York: The Macmillan Company, 1960).

[14] John W. Best, *Research in Education* (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1959), pp. 85–86.

[15] J. Stanley Ahmann and Marvin D. Glock, *Evaluating Pupil Growth* (Boston: Allyn and Bacon, Inc., 1958).

[16] Chauncey and Dobin, *loc. cit.*

certain evaluation tools and methods. A classroom teacher may possess excellent qualities suitable for administering tests and collecting information from children, but may find it quite difficult to interview an adult. On the other hand, one who is quite comfortable at interviewing and making use of schedules may find administering standardized tests quite boring.

The most logical source of data must be taken into consideration—who or where are the best sources from which to acquire specific kinds of data. The logical source of certain data might be parents, church leaders, teachers, recreation workers, social workers, courts, or the children themselves. The question also must be raised as to the accessability of desired data. It may be difficult or impossible to obtain data from the most reliable and logical source. Therefore, a source acceptable but not quite reliable might have to be used. For example, some courts will not release records of juveniles to individuals or agencies outside the courts. In such case, data that would be more accurate and complete if obtained from court employees may have to be collected from citizens in the community, a less reliable source.

Plans for collecting data should be made with the methods of handling acquired information in mind, for it is true that possible ways of handling data after they are collected are largely determined by the method by which they are collected and recorded. For example, if information is to be tabulated with respect to sex, race, and family income, then the instrument used to collect the data should be so constructed as to facilitate making these tabulations.

Interpretation of Data

The gathering of the data is followed by analysis of the findings. Before meaningful analyses can be made, data often must be put into some format that will make these analyses possible. Useful formats include tables, charts, and graphs. Students in the intermediate school may be classified into categories based on the presence of some quality or characteristic. Race, nationality, and sex are qualitative elements and may be expressed in frequency or rank order of appearance, in fractions, or in percentages of the whole. Quantitative characteristics are described in terms of magnitude or amount. Both must be utilized to prepare data for analysis.

When comparing elements that are not equal in number, it is advisable to find a basis for comparison. Changing frequency counts into percentages is one method. Ranking in order of frequency or degree of attainment toward a type of behavior is another useful basis. When data are arranged in rank order, weights may be used. A first rank is worth more than a second rank, etc. For example, if ten items are to be scored, weights may be assigned as follows:

1st	10 points
2nd	9 points
3rd	8 points
4th	7 points
5th	6 points
6th	5 points
7th	4 points
8th	3 points
9th	2 points
10th	1 point

It will be necessary to break many characteristics or responses into subgroups for the purpose of analysis, because the many differences within the group may make meaningful descriptions difficult. These more homogeneous categories will reveal characteristics that may point up certain generalizations or lead to conclusions showing cause-and-effect relationships. When categories are established on the basis of test scores, ranking, or some other quantitative measure, it may be that sufficient analysis can be made from a classification that does not include scores from the middle of the distribution in the comparison. In such a case, the top 25 per cent would be compared with the bottom 25 per cent. By eliminating the middle section, a sharp contrast is achieved.

Many of the data will have to be sorted and tabulated for systematic examination. This may be done by hand or machine. Before tabulating questionnaires or opinions, one should decide upon the categories that are to be established for analysis. Prior decision often eliminates a waste of time.

Let us assume that we are analyzing a yes–no response on a questionnaire distributed to pupils in grades six, seven, and eight to boys and girls of three different family income levels. One item might be: "I belong to one or more church organizations."

The proper steps in tabulating the responses would be:
1. Sort the questionnaires into three piles, one for each grade.
2. Sort each of the three piles into three piles, one for each income level.
3. Sort each of the income piles by sex.

There are now eighteen piles which can be tabulated by a yes or no response. Totals for any classification can be easily obtained by simple addition.

One tabulation sheet could be used for recording responses to this item, as illustrated by Table 22–1.

If the data gathering device called for a larger number of responses, the reporting would be similar. A five-item opinionnaire response could be tabulated for a question as follows:

TABLE 22-1

Response to Questionnaire Item I

Grade		Below $4,000 M	F	$4,000–$6,000 M	F	$6,000 and Above M	F
6	Yes						
	No						
7	Yes						
	No						
8	Yes						
	No						

Q: Are after-school activities contributing to juvenile delinquency?
A: Yes _____

   I believe so _____

   I cannot say _____

  I don't believe so _____

  No _____

Tables, graphs, and figures help those working with data to see the similarities and relationships of data in bold relief, placed in columns and rows according to some logical plan of classification.

The application of statistical arrangements will render many data more suitable for analysis. Once data have been tabulated, they can be readily arranged to make these statistical measurements. In describing data and analyzing them in a meaningful way, the following types of statistical measurements are necessary or useful:

1. Measures of central tendency—mean, median, mode.
2. Measures of relative position—percentile and quartile.
3. Measures of spread or dispersion—deviation and range.
4. Measures of relationships.

It does not seem advisable to present an explanation and examples of these measures. The intermediate staff should consult books on elementary statistics for statistical procedures and computations. It is always advisable to employ consultants to give assistance with statistical computations and analyses.

The evaluation team must be aware that good data poorly handled will inevitably result in inadequate evaluation. Best points out the following limitations and sources of error in analysis and interpretation that would jeopardize the success of an investigation.

1. *Confusing statements with facts.* A fault is the acceptance of statements as facts. What individuals report may be a sincere expression of what they believe to be the facts in a case, but these are not

necessarily true. Few people observe skillfully, and many forget quickly. It is the researcher's responsibility to verify, as completely as possible, all statements before they are accepted as facts.

2. *Failure to recognize limitations.* The very nature of research implies certain restrictions or limitations about the group or the situation described—its size, its representativeness, and its distinctive composition. Failure to recognize these limitations may lead to the formulation of generalizations that are not warranted by the data collected.

3. *Careless or incompetent tabulation.* When one is confronted with a mass of data, it is easy to make simple mechanical errors. Placing a tally in the wrong cell or totaling the wrong set of scores can easily vitiate carefully gathered data. Errors sometimes may be attributed to clerical helpers with limited ability and interest in the research project.

4. *Inappropriate statistical procedures.* The application of the wrong statistical treatment may lead to conclusions that are invalid. This error may result from a lack of understanding of statistics or the limitations inherent in a particular statistical application.

5. *Computational errors.* Since the statistical manipulation of data often involves large numbers and many separate operations, there are many opportunities for error. Readers are familiar with the story of the engineer who, after witnessing the collapse of his bridge, remarked, "I must have misplaced a decimal point." There is no way to eliminate completely the fallible human element, but the use of either mechanical or electronic tabulating devices will help to reduce error.

6. *Faulty logic.* This rather inclusive category may embrace a number of the thought processes of the researcher. The use of invalid assumptions, inappropriate analogies, inversion of cause and effect, confusion of a simple relationship with causation, failure to recognize that group phenomena may not be used indiscriminately to predict individual occurrences or behavior, failure to realize that the whole may be greater than the sum of its parts, belief that frequency of appearance is always a measure of importance, and many other errors, are limitations to accurate interpretation.

7. *The researcher's unconscious bias.* While objectivity is the ideal of research, few individuals achieve it completely. There is great temptation to omit evidence unfavorable to the hypothesis, and to overemphasize favorable data. The effective researcher is aware of his feelings and the likely areas of his bias, and constantly endeavors to maintain the objectivity that is essential.

8. *Lack of imagination.* The quality of creative imagination distinguishes the true researcher from the compiler. Knowledge of the field of inquiry, skill in research procedures, experience, and skill in logical thinking are qualities that enable the adroit researcher to see possible relationships leading to generalizations that would escape

the less skillful analyst. It is this ability to see all that there is in the data that produces significant discoveries.[17]

Drawing Conclusions

The drawing of conclusions constitutes the next to the last step in the process of evaluation. This is the most important step in the process because out of conclusions will come recommendations. No attempt should be made before the entire staff has had an opportunity to review the findings and have the analysis of the findings explained to them. In drawing conclusions, the following cautions should be noted:

1. No data must be interpreted in isolation. They must be interpreted in the light of numerous factors. For example, the results of achievement tests can be interpreted only in the light of such other factors as school attendance, potentials for learning, and previous scholastic records.
2. All data obtained must have been included in the summary and analyses, for in general there is a high degree of correlation between the quantity of data and the quality of the evaluation project and findings.
3. Do not confuse statements with facts. What individuals report may be sincere beliefs of what they believe to be facts, but may not necessarily be true.
4. Recognize limitations—failure to recognize limitations may lead to the formulation of generalizations that are not warranted by the data collected.

Making Recommendations

Although the work of the principal and his staff does not end when recommendations are made, recommendations signal the end of the current project. They answer the question, "Where do we go from here?" In effect, they are the new goals, new practices, and new policies that the evaluation team deems necessary to provide educational experiences for children and youth in the community in order that they might satisfy their personal needs and the demands of the community.

Since recommendations are, in fact, new goals and indications of a need for change, it is important at this point that the staff, along with others on the evaluation team, employ their best critical thinking and creative ability. Decisions must be made in order to more effectively help youth and children in the intermediate school reach the goals set for them. Consideration should be given to desired and necessary changes in school organization, in practices

17 Best, *op. cit.,* p. 196.

and procedures, in materials and equipment, in subject matter offerings, in community support, and in staff.

What are some of the cautions to be taken?

1. Recommendations must not be too overwhelming to the staff, board of education, and community. If recommendations are numerous, they may be divided into long-range and short-range objectives.

2. Recommendations should be made in the light of the total school situation and their pertinence to achieving set goals.

3. All who are likely to be involved in carrying out the recommendations should be involved in their derivation.

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