This document provides a brief overview of the many aspects of educational planning. The first chapter discusses the history of planning, possible definitions of planning, needs for flexibility, continued evaluation, and communication in successful planning, and the value of planning to educational leadership. Chapter two reviews 14 planning models, including the Banghart-Trull Model, Kaufman's Educational System Planning, the Phi Delta Kappa Educational Planning Model, four state planning models, and seven school system planning models. Established management systems, tools, or techniques are identified in chapter 3. These include the planning-programming-budgeting system (PPBS), zero-based budgeting (ZBB), management by objectives (MBO), systems analysis, needs assessment, the Delphi technique, management information systems (MIS), forecasting, planning, evaluation, and review technique (PERT), operations research, and checklists. The fourth chapter describes the seven steps in the process of planning. In the fifth and concluding chapter, the author urges awareness of the individual nature of any situation requiring planning and argues that, like other management practices, planning as such is not dehumanizing, but can be used humanely or not depending on the attitudes, interests, and intentions of the planners. (P&D)
Educational Planning for Educational Success

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This fastback is dedicated to all those who plan and all those who let others plan for them.

Series Editor, Derek L. Burleson
Educational Planning for Educational Success

By Arthur W. Steller

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The Fundamentals of Educational Planning

The "school-as-usual" approach is no longer acceptable in a society where being professional also means being accountable. Our turbulent social environment will not permit schools to remain as they are. The issues plaguing our schools are not only those dealing with teaching and learning; inflation, the energy crisis, drug abuse, the surging divorce rate—these are but a few of the many social problems that now directly affect the functioning of our schools. Desegregation, for instance, has created new demands and expectations for our schools. Yet some school administrators have failed to provide educational leadership on this critical issue and continue to conduct business as usual in a world passing them by.

Howard Thompson, a veteran school board member from Prophetstown, Illinois, recalled that it was formerly "almost fun" to serve on a school board. Writing in Managing Your Schools (National School Public Relations Association, 1979), he depicted graphically the changes that have taken place.

Then came unionism, collective bargaining, inflation, declining enrollments, declining revenues, and more demands by state and federal governments in the form of mandated programs, services, and requests for information. Then, lawsuits and threats of litigation, impasses, fact finding, arbitration, cutting programs, cutting staff—all this means a good deal of unpleasantness for board members and a generally negative feeling by almost everyone. It's a time when the board and the administration really need to show responsible leadership. We need to give direction.

The uncertain financial future is forcing most school districts around the country to reexamine their priorities and to refocus their ef-
forts. Roy Stern, associate superintendent for program development for the Montgomery County (Maryland) public schools, proposes that, "A step-by-step analytical planning process provides some assurance that educators will be able to marshal resources to confront the most critical needs."

While more funding for school programs may not be the most critical issue confronting educational planners, nevertheless, if new funds are needed for specific programs, these programs must be justified by a well-defined, comprehensive plan. Tax-weary citizens now expect the public schools to account for every new program expenditure.

Accountability is theoretically a sound idea, but one not readily implemented unless it is carefully planned. Assessment and accountability require the constant formulation and reformulation of objectives as programs are implemented. National, state, and district assessments of student performance must be analyzed and interpreted in order to develop standards and improve the curriculum. Educational innovations become mere gimmicks unless they can successfully be incorporated into the educational system with a well-developed planning and accountability strategy.

The most sinister enemy of public education is apathy. The community needs to be informed about all matters related to planning for its schools. It cannot be assumed that goals and objectives of a school system are always understood by the students, parents, taxpayers, or even the staff. With good planning, they will be understood. No matter what a school’s resources may be, without sound planning the school staff is like a football team without a set of plays. With the public demand for accountability, school boards and school administrators must work together to develop systematic planning for both short- and long-range goals of the schools.

**Historical Perspective on Planning**

Much of the recent emphasis on planning in education stems from the various requirements of federal and state funding agencies. Particularly in the past 10 to 15 years, as business and industry have increased the sophistication of their planning models, schools have tended to imitate their efforts. However, blind adherence to the plan-
ning models of business and industry will not necessarily produce the results desired because the business of education is not the same at all. What is needed is an adaptation of the best that such models have to offer, which can then be applied to planning problems peculiar to schools.

Early management theory stressed efficiency and rationality as a basis for business decisions. Early writers in this century such as Henry Fayol emphasized such factors as division of work, authority, discipline, unity of command, unity of direction, subordination of individual interests to the general interest, remuneration, centralization, lines of authority, order, equity, stability of personnel, initiative, and esprit de corps. Writers such as Frederick Taylor urged the application of the scientific method to solving factory problems.

The early or classical management theories have been challenged by behavioral scientists on a variety of grounds. Newer mathematical decision-making techniques are in the ascendant—techniques involving probability theory, computer simulation, and game theory. Socially oriented humanistic psychology has emphasized the role of individual release of potential and creativity through total staff participation in planning and decision making. Management by objectives (MBO) is still another popular approach to planning. The focus is now on applying management tools within a social context, developed with both humanistic and economic goals in mind.

Useful management tools have evolved through operations research and general systems theories developed after World War II. Operations research uses mathematical models to analyze the dynamics of a situation. These mathematical models are used to test various plans before they are put into operation, thereby providing planners with at least some information about the way in which an operation may function in practice. General systems theory is less mathematical but permits planners to conceptualize their operations more accurately in terms of inputs, outputs, and processes.

In *The Journal of Educational Administration* (October 1972) Jack Culbertson described educational planning as greatly indebted to four bodies of knowledge: operations research, manpower and human resources planning, planning-programming-budgeting models (PPB),
and futurology. Futurology is a very speculative process. It involves extrapolating from history and reasoning by analogy. Yet it can be a very useful approach for educational planners in a rapidly changing society.

Definitions of Planning

Planning may be defined in various ways. Fenwick English, educational consultant for Peat, Marwick, and Mitchell, states that sound planning includes three major elements: 1) purpose, 2) resources, and 3) rules. English said, "As the purpose(s) become more specific, as resources become more scarce, and as rules become more complicated, planning becomes more important and more difficult."

There is no single, accepted definition of planning among school administrators. A working definition might state that planning is the clarification of one's present status, deciding where one wants to be, then determining how to get there. Practicing school administrators, however, are less in need of a rigorous definition than they are of specific planning systems and techniques.

Samuel Goldman and William Moyihan (Developing a Conceptual Framework for Viewing Models of Educational Planning. U.S. Department of Health, Education, and Welfare, 1974) list the following characteristics of good educational planning:

1. It encourages changes and improvement.
2. It facilitates integration of various parts of the system by focusing on an agreement with specific courses of action decided.
3. It is a pedagogic tool producing greater knowledge of the organization, its purposes, and its operation by those participating in it.
4. It is inherently a means for achieving accountability.

Planning enables educators to identify their needs and to proceed logically to find ways of attaining their goals. Planning involves teamwork. Those who will be most affected by a decision should be permitted input into the decision-making process, regardless of who eventually makes the actual decision.

There should be formal ways to enlist people outside the administration to contribute directly to the decision-making process. Young people, in particular, need a greater voice in those decisions that affect
their own destinies. Involving the public early in a planning process is one way of securing its support and interest.

Roger Schurrer of the North Carolina Department of Public Instruction lists six benefits of educational planning: 1) it clarifies both purpose and objectives, providing common direction for a school system; 2) it improves communication with external publics with respect to the purpose and objectives of the school system; 3) it improves internal communication and organization related to objectives and opens the organization up so that a larger number of persons know what is going on; 4) it expands the decision-making processes, bringing them to the level of implementation; 5) it promotes a participatory approach to decision making; and 6) it coordinates and focuses various programs into learning programs with a maximum impact on student learning.

Problems and Pitfalls in Planning

Planning by itself is no guarantee of success; it is the subsequent execution of planning that determines success. Plans must be updated and modified continuously. For instance, plans that anticipate a certain number of students enrolled by a certain year must be revised if the expected number is not reached. Inertia in school districts is a factor that cannot necessarily be overcome by planning. Conflict over school desegregation, labor relations, and school finances may interfere with formal planning processes. School personnel may resist planning because of its often abstract nature or because it seems unrelated to immediate problems.

That many administrators do not yet believe in planning is reflected in attitudes that range from satisfied conservatives, who believe things are fine as they are, to reactionary pessimists, who believe that things are going from bad to worse. It is difficult to convince such persons of the potential benefits of the planning process.

Other problems in planning center around a lack of agreement regarding basic assumptions, insufficient time, lack of participation, lack of commitment, lack of leadership, personnel turnover, lack of openness in encounters, and lack of belief that plans will actually be implemented.
Educational Leadership and Planning

Planning is a basic leadership task of school administrators. The difficulties involved in planning are numerous. Most school administrators have had little training in educational planning. Planning must proceed at the same time that students are being taught, teachers are being evaluated, curriculum is being developed, and buildings are being cleaned. Unlike the ideal textbook case in educational planning, school administrators must plan in an extremely complex environment.

Planning is time-consuming and requires substantial sums of money. It is definitely not something that can be accomplished effectively in an administrator's spare time. It is not likely that sound planning will happen by itself. Very little happens by itself in an organization—other than disorder and friction.

Success in education is almost never the result of sheer luck. It is, instead, the outcome of careful planning. What is needed is comprehensive planning based on good judgment, open communication, and proper timing.
A Survey of Planning Models

A number of theoretical planning models are described in the literature. The two theoretical models discussed below are representative and are probably the two most well-known models used in university courses in educational planning.

The Banghart-Trull Model of Educational Planning

In Educational Planning (New York: The Macmillan Company, 1973), Frank W. Banghart and Albert Trull, Jr. develop a conceptual framework for comprehensive educational planning. Their seven-phase model provides educational planners with tools to develop new approaches to planning problems in an educational environment.

In phase one the educational planning problem is defined by considering what has been, what is, and what should be. Obstacles to planning are also considered: lack of resources, political constraints, time limits, and others. Since some goals are more important than others, it is necessary to establish educational planning priorities.

Phase two of the model is concerned with analyzing the planning problem area. Using a systems approach this phase identifies four natural systems: educational activity, educational communication, educational facilities, and educational operations. Information or data is gathered in each of these systems for the purposes of identifying and solving problems.

Phase three of the model involves making plans in order to solve the identified problems. By identifying prevailing trends and establishing goals and objectives, one can begin to design plans to solve the identified problems.
Phase four of the model evaluates the plans that have been designed. Using computers and mathematical equations, the planners may try a dry run or simulation to see what their plan predicts under certain conditions. The plan finally selected should be one that takes into account all of the real problems of the school situation. A good, comprehensive educational plan considers physical, social, and economic factors.

Phase five of the model communicates the plan to others. All too often, a good plan is shelved merely because not enough people knew about it or understood it. A plan should be well-formulated for the public, with any results of its application reported fully.

Phase six of the model puts the plan into action. Once the educational plan has been prepared, its implementation becomes the next crucial step. Such implementation involves setting up a formal program. Approval may require justifying the plan legally. Organizing operational units in the school system to implement the plan may encounter political and social resistance. Anticipating such resistance and developing strategies to overcome it are parts of the planning process, too.

Phase seven of the model is feedback activity for the benefit of further planning. Accordingly, the plan must be monitored constantly. Information gathered then becomes the basis for making adjustments consistent with the original goals of the planning operation. Mathematical techniques and models are sometimes useful in this phase.

A major assumption underlying the entire model is that planning is comprehensive and involves the participation of every person concerned with the area under consideration.

Kaufman's Educational System Planning

In Educational System Planning (Englewood Cliffs, N.J.: Prentice-Hall, 1972), Roger K.-:lman develops a number of concrete ideas fundamental to effective planning. The emphasis of his model is on determining ends (what to do) before considering means (how to do it). He makes a sharp distinction between planning and doing. Crucial to planning, from this standpoint, is a list of clearly established needs combined with accurate measurements.

Kaufman perceives education as a management process. His overall
educational management process model consists of six steps:

1. Identify the problem, based on documented needs.
2. Determine solution requirements and solution alternatives.
3. Select solution strategies from the available alternatives.
4. Implement the strategies selected, in order to achieve the required outcomes.
5. Determine performance effectiveness.
6. Revise the plan, as required, at any step in the process.

The process is an ongoing, continuous one. Steps 1 and 2 concern problem identification; steps 3, 4, and 5 are directed at problem resolution. The sixth step involves both problem identification and problem resolution. Taken together, the steps can be thought of as a systems approach. The system is designed to function as a self-correcting process whenever certain requirements fail to be satisfied. Accordingly, it is necessary to determine whether the plan has succeeded at each step of the way before deciding whether to continue or to revise the plan.

Kaufman makes it clear that a systems approach is only a planning tool, not the actual process of planning and doing. Good planning, realistic planning, must begin by identifying outcomes. Unless one knows clearly what is desired, no computerized systems approach is likely to produce a good educational system automatically. This means that there is an intimate relationship between means and ends, with the ends largely determining the choice of means.

In the Kaufman model, the tools for educational planning include needs assessment and systems analysis. In needs assessment, one becomes involved in a kind of discrepancy analysis that determines where the current system is and where it should be headed. Systems analysis builds on the needs assessment by identifying the requirements for whatever action is indicated.

The Kaufman model regards needs assessment as a continuing process. The deductive needs assessment model begins with a predetermined list of objectives or outcomes derived from empirical data concerning what is and values concerning what should be. The inductive needs assessment model starts with those involved in education. Inductive models based on goals stated by educators alone are in disfavor. The nature of society, the characteristics of the learner, and the
professional expertise of the educator are all equally important in a model of comprehensive educational planning.

The tools essential for educational planning typically include mission analysis, function analysis, task analysis, and methods-means analysis. A mission analysis is the overall job that must be performed in order to satisfy the identified needs. Mission objectives define the mission in measurable terms. The result is a mission profile or management plan depicting, in flow chart form, the functions necessary to move from where one is to where one wants to be.

A function analysis is the means by which a mission may be accomplished. Often with the aid of flow charts, a function analysis shows what needs to be done to accomplish the mission.

A task analysis defines the specific entities constituting a function and interrelate them. Task analysis is a very specific kind of mission and function analysis.

A methods-means analysis tries to compile a list of alternative strategies that will accomplish a plan after a mission, function, and task analysis have been performed. It considers the maximum possible number of methods and the comparative advantages and disadvantages of each one in pursuing one's goals.

The theoretical planning models described above have sometimes been applied by state school systems, large school systems, and small school systems. An applied model frequently used by school districts is Phi Delta Kappa's Educational Planning Model.

The Phi Delta Kappa Educational Planning Model

This model is designed to involve community members, professional staff members, and students in a series of decision-making activities devoted to educational planning. The model has three phases. Phase I activities seek to enumerate all perceived needs and to establish the order of importance of these perceived needs or goals. Phase II involves curriculum development based on performance objectives developed out of the Phase I analysis. Phase III involves analysis of resource allocations; preliminary identification or target goals; identification of an instructional program design; and evaluation and recycling. This last step is to determine whether the schools are now do-
ing a better job of meeting target goals. If not, the model design calls for the whole process to be recycled; go back to the drawing board, so to speak.

**Phase I.** This phase, involving setting goals and stating perceived needs, is based on a number of assumptions. Schools belong to the community; therefore, the community has a right to specify goals for its schools. Community members should have an opportunity to express whether existing educational programs are achieving those goals. Administrators, teachers, and students also ought to have the opportunity to state what they believe the goals are and how well such goals are being achieved.

Phase I materials include strategies that a school or school district may use to identify educational goals and to solicit opinions concerning how well the goals are being met. Community members are involved in ranking educational goals in the order of their importance and in assessing how well current educational programs are meeting those goals. Strategies are outlined for forming representative community committees and for selecting their members. Procedures for preliminary planning and organization are also listed.

**Phase II.** This phase suggests activities and objectives related to developing the curriculum. It is concerned with writing performance objectives, curriculum development procedures, and procedures for implementing a curriculum.

Goals must be expressed as performance objectives and in measurable units. Clearly written statements specifying exactly what is expected from learners are crucial. Such statements help teachers plan instruction. A performance objective must identify an observable behavior and the specific criterion for learner success. The learner must be able to identify the outcome of his personal efforts. Accordingly, the terminology must be specific and clear, the objective and the standard of evaluation consistent, and performance objectives relevant and achievable. Both the affective and the cognitive domains must be considered carefully.

The curriculum must be developed by the same individuals who will teach it and be accountable for it. The curriculum must be written for learners and it must have two levels: the program level, to be
achieved at the end of a program; and the instructional or teaching level, specifying which tasks students will have to master in order to succeed in the program. Instruction must be ordered in logical learning sequences and teaching responsibilities allocated to various grade levels. A good curriculum carried out effectively should lend itself to individualized instruction.

**Phase III.** This phase begins by an analysis of the manner in which the school system's funds are being expended: salaries of personnel, fringe benefits extended to personnel, plant operation and maintenance, transportation of students, and food services. Eight reporting formats are provided.

Preliminary identification of target goals is achieved by using forms provided for that purpose. The data derived from such forms are then analyzed. A needs assessment is also conducted by using special data-gathering devices and analyzing them. Programs should be designed in terms of agreed-upon goals and needs. Instructional strategies depend on such operational factors as personnel assignments, resource materials, staff training, classroom management, structured programs, instructional techniques, and organizational strategies. The school staff should be encouraged to identify alternative program strategies.

New programs that are recommended should identify the major activities to be implemented, the specific tasks required to implement each activity, the individuals assigned responsibilities for required activities, significant dates connected with each activity, and clear target-goal statements, performance objectives, and the evaluation instruments used. The results of the evaluation will determine whether or not recycling is to be recommended.

**Four State Planning Models**

An excellent state planning model has been developed by the North Carolina Department of Public Instruction. As described in its *Handbook for Planning in Local School Systems* (1976), planning is a process that begins with an analysis designed to identify a school's mission, objectives, priorities, strategies for achieving objectives, budgetary problems, assessment, and evaluation. The model exemplifies a
number of principles underlying comprehensive planning. These include a future-oriented approach considering numerous alternatives; involvement of many individuals at all levels; objective-oriented planning as a continuous, ongoing administrative process; recognition of time factors; and clear delegation of leadership functions and responsibilities. Planning structure is discussed in terms of external groups, the board of education, planning leadership teams, ad hoc committees, individual schools, and planning coordinators. Planning implementation and steps of the planning process are stated clearly and briefly.

The Pennsylvania Executive Academy Planning Process (Pennsylvania Department of Education, 1976) is a planning and decision-making model. The model is described in a number of special manuals that discuss in great detail such topics as planning overview, endorsement and commitment of authority structure, needs assessment, determination of problem statements, selection of a problem for action, development of expected outcomes, exploration of alternatives, selection of an alternative and design of a plan of action, implementation, and evaluation and revision. The major emphasis is on long-range planning involving administrators, teachers, students, and individuals in the community. The model seeks to help people develop common understandings of what is involved in planning and decision-making, enabling each individual to share the attitudes, values, skills, and knowledge that create change.

A Guide for Ongoing Planning (California State Department of Education, 1977) is a planning model based on the idea that planning is a cyclical process that must keep up with current and changing needs and conditions. According to this model, a good program includes monitoring, evaluation, and decision making. Effective management adjusts plans based on a knowledge of what is not working in the program and why. Decisions to change the program can be made throughout the year as new information is generated, rather than just once a year when plans are being written. The model is useful in that it provides a detailed outline of procedures and various dos and don'ts of comprehensive educational planning.

The Planning Primer for Local Educators (Alabama State Department of Education, 1977) offers a model based on seven components of
a systematic planning cycle: establishing goals; assessing and analyzing needs; identifying resources and constraints; prioritizing needs; developing objectives; generating and analyzing alternative strategies and selecting strategies; securing and allocating resources and formulating a program implementation plan; and operating and evaluating programs. Each of these components is covered in detail by a separate monograph available from the Office of Planning and Evaluation of the Alabama State Department of Education.

**School System Planning Models**

Planning models have been implemented successfully by a number of school systems, both large and small. This section describes a few of the more successful applications.

Roy Stern and Arthur Steller of the Montgomery County (Maryland) Public Schools have provided a conceptual overview of school planning in their Comprehensive Planning Process model. The model seeks to improve educational opportunities for students by increasing management effectiveness and efficiency and by expanding opportunities for teachers, parents, taxpayers, students, and other segments of the educational community to participate in the decision-making process, particularly at the school building level.

The Stern-Steller model consists of six major phases, in the following sequence: 1) examine approved purposes and the present program; 2) identify noteworthy programs, activities to eliminate, and needs to assess; 3) assess and prioritize needs and establish objectives; 4) develop action plans and budget requests; 5) implement plans; and 6) evaluate and recycle. A simplified organizational chart for planning purposes is provided, beginning with the board of education and the various superintendents and proceeding through the various departments, divisions, and different types of schools. The authors provide a detailed flow chart showing 21 steps of the comprehensive planning process, which is linked to budget development.

The Dallas Independent Public Schools are committed to system-wide planning, although there is no central planning office. Decisions are made by three councils (development, learning, and management) and an executive team consisting of the system's top 24 administrators.
These councils serve as a think tank advising and assisting the superintendent in identifying and defining issues. One focus of the Dallas planning model is on long-range planning and budget problems. Also emphasized are organization of the system's collection of information, the decision-making process, and the formalization of plans. Functions such as setting objectives and a needs assessment are chiefly in the hands of the superintendent and the executive team. Input from the community and the teaching staff is not stressed.

The Salt Lake City School District has devised a comprehensive plan for educational excellence based on shared governance with the employees and patrons of the school district. Evaluation and accountability are key elements in this model. Goals and objectives are detailed in great specificity for both the board of education and for the school administration. An accountability system covers the superintendent, central office administrators, principals, and teachers. Evaluation strategies for all staff include remediation programs, audit procedures, progress conferences, and shared governance. The School Community Council at each school participates actively in the decision-making process for the school; its role is more than advisory. Evaluation is validated through periodic reports, testing programs, teacher judgments, conferences, end-of-year reports, and a public disclosure program.

The Planning Manual (1979) for the Lansing (Michigan) School District is a decision-making model geared to the building level. The model strives for a balance between accountability and freedom. It emphasizes an appropriate balance between staff, student, and parent involvement in the decision making that addresses educational objectives for local, state, and federal programs. The model consists of six categories: 1) program improvement and articulation, 2) equal educational opportunity, 3) fiscal survival, 4) internal/external relations, 5) staff development, and 6) general management. The model sets priorities for elementary, junior high, and senior high schools. Six fundamental questions guide the planning process:

- What are the pressing needs at this school?
- What kind of program do we want?
- What personnel will the program require?
- What materials and supplies will the program require?
What facilities will the program require?
What will it cost?

The Wake County (North Carolina) Public School System's Accountability Model (1978), as its title implies, is an effort to measure the job performance of the top administrative staff of the school system. The model is based on a management by objectives (MBO) approach that involves total staff participation in setting the objectives for the entire school system. The model consists of 10 discrete steps: 1) developing systemwide priorities; 2) drafting a mission statement; 3) reviewing job descriptions; 4) developing critical objectives based on the superintendent's mission statement; 5) preparing plans that define major events, responsibilities, and time lines; 6) defining performance standards; 7) reporting performance; 8) monitoring and tracking the flow of events; 9) performing evaluations; and, 10) reviewing and programming. The model provides charts and special forms that personnel can use as guides in carrying out this accountability model.

The New Orleans Public Schools Secondary Curriculum Improvement Program was developed to deal with the downward trend in pupil performance. The model provides for an overview of the school system, a management information system, and a secondary curriculum improvement program (SCIP). A significant pedagogic contribution is the model's Mastery Learning System, consisting of three components: 1) New Orleans Public Schools Skills Continuum and Objectives in Reading, Language Arts, and Mathematics; 2) the New Orleans Public Schools Minimum Competencies; and 3) the Management Information System. The Mastery Learning System is an instructional tool to help teachers develop curriculum and to assess student progress periodically. Daily instruction is supported by diagnostic and prescriptive aids covering the spectrum of skills, objective tests of those skills, computer feedback of the tests, and a listing of resources specific to learning objectives.

The Individual School Management System (ISMS) of the Mt. Diablo Unified School District (Concord, Calif.) is an example of a model that places educational decision making as close to the learner as possible by involving students as well as teachers and parents. These three groups work within the district's broad goals but have the
authority and responsibility for making decisions at the school building level that reflect the needs of the local community. The strongest emphasis of the model is on establishing a good learning climate in which young people can live and work. Shared decision making, staff development, planning, organization, and monitoring are all intended to establish such a climate.
Tools for Rational Planning

There are a number of management tools or techniques available to educators that can minimize risks and reduce errors in educational planning. Educators need not be expert in the use of all these techniques, but they do need a general understanding of each technique in order to know when to use it to best advantage. This chapter discusses the specific management tools most likely to be helpful to the educational planner.

PPBS

The acronym PPBS stands for Planning-Programming-Budgeting-System. It is a technique that draws on concepts and methods from economics, systems analysis, and systems planning. PPBS deals much more with strategic planning over rather long time intervals than it does with management problem solving. In Policy Decision Making in Education (Teachers College Press, 1975), Dale Mann summarizes the outstanding features of PPBS. It provides:

1. A comprehensive data base concerning an organization's resources and the effect of the application of those resources.
2. A goal structure integrated first with specifically stated objectives, then with the programs intended to achieve those objectives.
3. A systematic review of the total costs and benefits of existing and projected activities.
4. A procedure for the systematic generation and consideration of alternative activities.
5. Multiyear planning horizons.
6. A continuous review of existing programs.
As a conceptual framework for comprehensive planning, PPBS is useful. However, it cannot, by itself, determine the most appropriate goals to pursue; nor can it evaluate programs, the goals of which are vague or undefined. Such constraints as local politics, community lethargy, and value conflicts cannot magically be overcome simply by means of a PPBS planning model.

**Zero-Based Budgeting**

When an organization uses the zero-based budgeting technique it starts from scratch when preparing a budget rather than simply adding or subtracting from its previous budget. To use this technique a manager prepares a "decision package" for each program or operation in a budget, specifying goals, purposes, costs, alternative courses of action, benefits, the consequences if the program or operation were not funded, and measures of performance. The various decision packages are then prioritized to determine which will or will not be funded. In a nutshell, zero-based budgeting means that all programs for each budget period must be replanned from the ground up with their funding justified in terms of clearly articulated organization goals.

The two stages of zero-based budgeting, developing decision packages and ranking them, enables one to consider alternative programs for funding. A number of authorities contend that zero-based budgeting can help fill critical gaps in the PPBS model, because it calls for highly specific goals determination often lacking in the generalized systems approach of PPBS. However, the two approaches are compatible: both base budgeting on program needs, goals, and priorities. Decisions are not made arbitrarily on the basis of funds available. Instead, the total picture is considered and many factors are weighed and balanced when making decisions.

**Management by Objectives**

The planning technique called management by objectives (MBO) has much in common with PPBS and zero-based budgeting. In all three approaches, personnel and resources are used in accordance with agreed-upon priorities. The MBO approach requires that administration and staff identify goals jointly, defining individual areas of re-
responsibility in terms of the results expected and using results as a basis for assessing the goals of the organization and the performance of the staff. The individual administrator develops his or her own managerial objectives that are consistent with agreed-upon organization objectives. The administrator is free to carry out his objectives in his own way, as long as his style does not interfere with achieving his own objectives or those of the organization.

A valuable aspect of MBO is that it permits the maximum use of individual strengths and talents of all staff members in the school district. While each administrator is recognized as an expert at his particular level, he must be aware of objectives at each level. Under MBO, the administrator operates as a member of a team to achieve a set of measurable goals.

**Systems Analysis**

Systems analysis is more a conceptual tool than a procedural technique. It combines many areas of knowledge to solve complex problems, using the scientific method. Systems approaches emphasize models and flow charts. The time context is a future in which alternatives are weighed and balanced through a careful assessment of costs as opposed to benefits. Systems analysis deals with uncertainties, often by means of computerized simulation models.

Some authorities regard systems analysis as common sense that anyone would use in planning. Fred Newman and Arnold Oliver, writing in the *Harvard Educational Review* (1969), charge that the systems approach avoids the most important problems of education—namely, those of goals and objectives. "The excessive concern with technique, rather than a searching examination of ends, results in a tendency to accept as legitimate those objectives that can be schematically and quantitatively measured." In other words, schematic science cannot create values, goals, and objectives, although it may help implement them.

**Needs Assessment**

Needs assessment is a technique used to compare the current status with perceived goals in an effort to identify needs. A discrepancy be-
between what is and what ought to be suggests needs to be met. Basic to needs assessments are questions, often in the form of questionnaires, designed to identify needs at all levels. One of the problems in needs assessment is choosing the source of the input data—parents, teachers, students, administrators, or others. In some instances, it may be desirable to establish committees to begin the process. In others, routine questionnaire data are enough. In still others, the judgments of an administrator suffice, especially if the need area is primarily within the administrator's area of expertise.

A needs assessment is not necessarily a procedure that will provide precise data. It is often nothing more than an educated guess or a summary of local opinions. Above all, needs assessment is not value free and cannot be automatically used to replace the judgment of a professional administrator.

The Delphi Technique

In its most general form, the Delphi technique is a way of structuring communication so that individuals can deal jointly with a complex problem. The technique provides a mechanism for feedback of individual contributions, assessment of the group's contributions, assessment of the group's opinions, some opportunity for individuals to revise their views on the basis of the group's opinions, and some degree of anonymity for the individuals.

In practice, the Delphi technique often uses a questionnaire. Individuals supply data that are analyzed by a monitor group and are used to formulate further questions. These are then submitted to the same individuals. The technique, in effect, is a kind of polling and conference procedure which, with the monitor group formulating the questions, helps individuals communicate with the larger group. The process generally has four phases: exploration, coming to understand how the group views an issue, further exploration in the event of disagreement, and final evaluation leading to a decision based on the first three phases.

The weaknesses of this technique become obvious when the monitor group's views and preconceptions are imposed on the participants. Also, this technique may replace human interaction where strong dis-
agreements sometimes surface. It is essential that disagreements not be ignored, as sometimes happens.

Management Information Systems

In many management situations it is important to collect and analyze a large volume of data in order to facilitate decision making. Management information systems (MIS) are particularly useful in school districts to locate such data as per-pupil expenditures, student-teacher ratios, the percentage of students from families on welfare, classroom footage per student, average daily attendance, average teacher experience, median educational attainment of students' parents, and the like. Much of this data can be programmed into a computer. A computerized MIS then becomes more a necessity than a luxury. A good MIS system provides managers with a tool for identifying, gathering, organizing, and analyzing the information required to make a sound decision and then to implement it.

Forecasting

Forecasting is an attempt to anticipate the future on the basis of past experience. Forecasting should not, however, be considered a substitute for planning. Forecasting the future, or futurology, uses such techniques as reasoning by analogy, extrapolating from current events, and reasoning through causal relationships. New methods have recently been invented using mathematical and computer techniques to simulate future possibilities, thus allowing one to study the possible interactions between various trends, forces, and developments.

Forecasting attempts are typically based on the identification of current societal trends and societal value shifts. The future is anticipated in terms of possible interactions among these trends and values. It requires exploring the most optimistic and the most pessimistic combinations of events that are likely to materialize. An institution's capacity to deal with the anticipated events becomes the focus for current and future planning.

PERT

PERT is an acronym for the Planning, Evaluation, and Review Technique. It is a technique used to analyze programs whenever there
is an element of uncertainty surrounding the exact amount of time needed to complete specific program tasks. The basic PERT technique uses flow charts to indicate a network of activities and their time requirements. Such flow charts allow one to determine whether certain arrangements or schedules are better than others. The PERT technique can be very useful to the school planner involved in coordinating events and establishing time schedules.

Operations Research

Operations research is the process of improving the efficiency of institutional operations either in progress or planned for the future. Operations research observes institutional systems and devises models to explain them. Management information systems, the Delphi technique, PPBS, MBO, and systems analysis are all techniques that can be used in operations research. Operations research attempts to deal with both individual and organizational needs on a group problem-solving basis in order to create and maintain an institutional environment in which both individuals and organizations thrive. Strategies used include attitude measurement, diagnostic interviewing, problem solving, goal setting, communications improvement, conflict resolution, task force utilization, job design, and evaluation.

Checklists

Checklists are a simple but practical tool for planning. They are useful in situations involving safety (fire drills), emergencies permitting little time for deliberation (bomb scares), and for any routine occurrences in the school program that can be carried out on the basis of established procedures.

Summary

All of the management tools briefly reviewed in this chapter can help us become better educational planners. Many of them are merely highly refined statements of common-sense approaches that administrators have used instinctively. Others are extremely elaborate and require advanced training in order to use them effectively in educational planning.
The Process of Planning

The process of planning begins with a common set of elements: 1) formulation of ongoing guiding statements (philosophy, mission statements, curriculum, and other goals); 2) assessment of progress; 3) setting priorities; 4) developing process goals and objectives; 5) selecting from alternatives; 6) action planning; and 7) implementation, monitoring, evaluation, and recycling. These seven elements are discussed in this chapter.

Formulation of Ongoing Guiding Statements

It is the function of the board of education to develop a formal statement of purpose for a school district. Writing a statement of purpose forces the board to spell out specifically what the school's job is. Explicit statements of purpose generate plans of action and enable the board to guide the district along intended lines. The board must become involved in a variety of policy decisions—curriculum, transportation, building, planning and maintenance, staff development, student services, human rights, collective bargaining, community relations, budget development, and others.

The heart of a planning management system is a clear sense of mission or purpose as expressed in well-stated objectives. Thomas Watson, Jr., in A Business and Its Beliefs (New York: McGraw-Hill, 1963), stated the matter well:

This then is my thesis: I firmly believe that any organization, in order to survive and achieve success, must have a sound set of beliefs on which it premises all its policies and actions. Next, I believe that the most important single factor in corporate success is faithful adherence to those beliefs. . . In other words, the basic philosophy, spirit, and drive of an
organization have far more to do with its relative achievements than do technological or economic resources, organizational structure, innovation, and timing.

Assessment of Progress

Progress is measured in terms of some established objective or goal. Not all worthwhile goals are capable of precise measurement. Evaluation of progress based on professional judgment and on subjective factors must, therefore, be permitted in any plan of progress evaluation.

Assessment of progress depends on a prior identification of unsatisfied needs. Identification of needs is a value-laden process since it involves both "what is" and "what should be." Each statement of need must first be assessed in order to confirm its validity. Without such an assessment, needs are merely unsubstantiated personal preferences. Then priorities must be set as to which needs will become the basis for action.

Setting Priorities

How priorities are established is crucial to effective planning. Priorities derived exclusively from a needs assessment based on questionnaires do not always reflect the realities of a particular school system. For instance, a needs assessment may enable a community to identify reading as the number one priority for action. But public announcement of this priority may create unrealistic expectations because of such factors as the current expensive commercial reading program that has been in use for only two years; or the reading coordinator's present poor health, which restricts his ability to organize an inservice program; or the leaks in the high school roof that have necessitated reallocating nearly all discretionary funds.

Regardless of how priorities are established, there is no ironclad rule mandating that the number one priority be addressed immediately, or even ahead of all others. Under certain circumstances, a number four priority may be targeted for action ahead of number one, two, or three. All concerned should be assured that the highest priorities will, however, be addressed within a reasonable length of time.

Some questions to consider when priorities are selected include: 1)
Is quick success necessary? 2) Are there areas with already-formed constituency groups prepared to support recommendations? 3) What role will test score play? 4) What is staff receptivity toward change? 5) Must the results be visible and concrete? 6) Are resources available for development and implementation? 7) What is the relationship of the given plan to other plans?

Writing on *How to Change Your School* (National Association of Secondary School Principals, 1978), Lloyd Trump and William Georgiades suggest the following three first steps in establishing priorities:

1. Everyone needs to establish priorities. What are yours, in terms of improving the school program where you work?

2. Take the list of dilemmas and problems you have developed earlier, adding not only the priorities you believe are important in attacking them but also who will have the responsibility for initiating each action.

3. While determining which individuals are responsible for what actions, develop plans covering how they will prepare, how they will find time, how they will spend available resources in different ways, how they will cope with problems, and how they will evaluate the resulting outcomes.

**Developing Process Goals and Objectives**

The procedures used in MBO (discussed in chapter 3) are quite useful for developing goals and objectives. The MBO approach, which involves total staff participation in formulating objectives, is more likely to gain the support of the entire staff when the time comes to implement the planning.

Comprehensive planning involves both long-range and short-range goals and objectives. Goals and objectives should be clearly related to the broad mission statements developed by the school board. Goals must be stated in terms of concrete and observable outcomes and should address the real needs of the school and the community.

**Selecting from Alternatives**

If a certain plan or set of plans cannot be realized, good planning
identifies alternative plans from which to choose. Sometimes the effort put into designing alternative plans results in a set of plans superior to the original set.

Contingency planning has become a standard topic in the training of planners. Such training helps managers to deal with unexpected developments. Contingency planning is particularly relevant to educational forecasting and futurology. For this reason, some current planning time frames have been extended to the year 2000.

**Action Planning**

Action planning is the process of implementing what has been agreed upon. One approach to analyzing a plan is first to write down its advantages, then its disadvantages. By comparing the two sets of statements, planners may come up with additional ideas for implementing the plans.

The Montgomery County (Maryland) Public Schools use an action planning approach that specifies the action, provides a plan overview, predicts the expected results, and shows the impact of the plan on both staff and community. The job title of each person designated to carry out certain objectives is specified. The costs and time frame for each objective are broken down in terms of personnel, equipment, supplies, and other factors. Possibilities for other than local funding, where such exist, are mentioned. In addition to staff salaries and supporting services, needs for supplies, materials, and contractual services (consultants, advertising, and rental costs) are specified in detail. Provisions are also made for detailing travel, utility, and other fixed charges. Furniture, equipment, transportation, food services, maintenance, and facilities are also accounted for within a specified time range. A space is provided in the action planning format for listing the milestone events for each objective within a specified time frame. Responsibility for each milestone is indicated by the job title(s) of the person(s) accountable for it.

**Implementation, Monitoring, Evaluation, and Recycling**

Educational goals involve many intangibles such as character and values. In contrast to business products, not all school "products" are
measurable. Indeed, some of the most valuable services a school performs are not measurable at all in any scientific sense of the word. Nevertheless, it is imperative that schools conduct performance evaluations if they are to be held accountable for a preponderance of their mandated objectives. Evaluation must be based on explicitly stated goals and objectives that are consistent with the philosophy of the school system and school building.

Implementation of plans cannot proceed effectively without evaluation and monitoring. A well-monitored plan will detect specific failures, which can lead to a decision to recycle the plan.

The human dimension must always be considered in any plan. Plans often fail because personality and culture are ignored. Planning should be a continuous, ongoing process embracing all spheres of interest. Tasks and responsibilities should be assigned specifically to individuals who are held responsible for the resulting outcomes.
Some Concluding Observations About Planning

Earlier I described some of the major tools available for the educational planner. As useful as these tools may be, the school planner cannot simply select a few of them and apply them mechanically to his situation. There is no single planning model suited to all situations. Planning is an art. Planning models must be designed to fit the unique characteristics of the situation. Ultimately, all planners must rely on their personal experiences as a guide in the selection and use of planning models.

If the theory of educational planning is to survive as a useful science, it cannot afford to stray too far from the practical needs of the educational community and the general public. Useful theories are generally those evolved by practitioners in the field. A general systems analyst who knows next to nothing about the educational scene is not likely to come up with a planning model useful to the educational planner.

Formal theorists generally measure the maturity of a science on the basis of the degree to which it has been systematized. Abstractions are easy to systematize, a fact illustrated liberally by the various models discussed earlier in "A Survey of Planning Models." There is, however, a further criterion that should be applied: that of congruence with reality. An abstract theory that presumably says everything really says nothing, unless it accounts for the specifics of everyday administrative life. The administrator should not fall victim to the illusion that the brilliantly structured model, rich in complex vocabularies, necessarily corresponds to the real world.

No matter how good a plan, it must overcome various obstacles—
not enough time, not enough staff members, and not enough resources. More important than the plan itself is an energetic planning committee fully representative of the various levels in the system, a skilled and dynamic planning leader, a committed superintendent, a supportive board of education, and a carefully designed mechanism for providing continuing communication up and down the organizational ladder. Without these, any planning effort is likely to fail, with the blame undoubtedly falling on some convenient scapegoat such as the principal or superintendent.

Where Have All the Humanists Gone?

A complaint heard in some quarters is that scientific management systems tend to dehumanize the school. The reply to such arguments is that a scientific tool is itself neutral; how humane or inhumane its application is depends on those applying it. Many of the comprehensive planning models discussed in this monograph foster institutional procedures conducive to humane and democratic administration—for example, total staff and community participation in the planning and evaluation process.

Ted Ward of the Institute for International Studies at Michigan State University speaks to the issue of humanism versus science.

An excessive preoccupation with process can result in narcissist stalemate; an excessive preoccupation with product can result in inhumane mechanization. For some people, the fixation on the target dates, deadlines, and “busyness” common to linear plans can lead to a sort of ineffective perpetual spinning of wheels. Since linear models always represent a flow toward product or output, they can tend toward over-glorifications of product. The major hazard that can result is a spiraling exaggeration of the pragmatic tendency to value ends over means. When any human system values ends over means, the resulting corruption usually causes the system to break down.

One of the dangers in scientific management is not that it will destroy human values, but that it will delude planners into replacing common sense with the “god” of science in the guise of mathematical symbolism, imposing computerized systems, and awesome vocabulary. Planners, who work for the good of the community, need to learn
how to use better management tools. Rather than object to comprehensive scientific planning on humanist grounds, a planner should exercise his humanism in the process of planning.

The Future of Comprehensive Educational Planning

The 1980s will assuredly bring an increase in educational planning. Educational planning techniques are bound to improve, especially in the application of the computer and mathematical approaches. Techniques for involving a larger number of individuals in planning will improve. There will be less reliance on lobbying groups and more on formally established decision-making bodies applying comprehensive planning techniques. Once a community has committed itself to comprehensive formal planning, the initial difficulties will decrease each year. Planning in colleges and universities will also improve as such institutions gain more planning experience. Educational planning is a failure if it does not result in improved education. The future of America’s children must not be left to chance. A successful future is not likely to come into being by itself; it must be planned for consciously. Yet, planning should not become an end in itself. A plan is no more effective than those who are implementing it.
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