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A DYNAMIC GENERAL PLANNING MODEL FOR THE HAWAII DEPARTMENT OF EDUCATION.

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A PLANNING MODEL IS SUGGESTED FOR THE STATE DEPARTMENT OF EDUCATION SO THAT CHANGES IN THE SYSTEM AND THE PROGRAM CAN BE MOST EFFECTIVELY ACCOMPLISHED FOR THE REALIZATION OF LONG-RANGE AIMS, INTERMEDIATE GOALS, AND IMMEDIATE OBJECTIVES. STEPS TO CONSIDER INCLUDE EVALUATION OF RESOURCES, MATCHING RESOURCES WITH AIMS, AND FORMULATING PLANS. A VITAL PART OF THE MODEL IS A COMPREHENSIVE INFORMATION SYSTEM COMPOSED OF SIX MAJOR SUB-SYSTEMS--PUPIL PERSONNEL, STAFF PERSONNEL, MATERIEL, CURRICULUM AND INSTRUCTIONAL PROGRAMS, PHYSICAL FACILITIES, AND BUDGET AND FINANCE. FEEDBACK LOOPS MUST BE ACCURATE, UP-TO-DATE, USABLE, AND RELEVANT TO THE PLAN OR SET OF PLANS UNDER CONSIDERATION. A PLANNING SPHERE IS CONCEPTUALIZED TO LINK IDEAS AND ARRANGEMENTS NECESSARY TO IMPLEMENT THE PLAN. A FRAMEWORK OF RELATIONSHIPS IS PROPOSED, OUTLINING A TAXONOMY OF PROGRAMS--THOSE THAT ARE OPERATIONAL AND THOSE THAT ARE SUPPORTIVE AS WELL AS THOSE WHOSE PLANS AND BUDGETS ARE ON THE STATE LEVEL AND ON THE LEVEL OF THE INDIVIDUAL SCHOOL. EA 001 354 IS A RELATED DOCUMENT. (JK)

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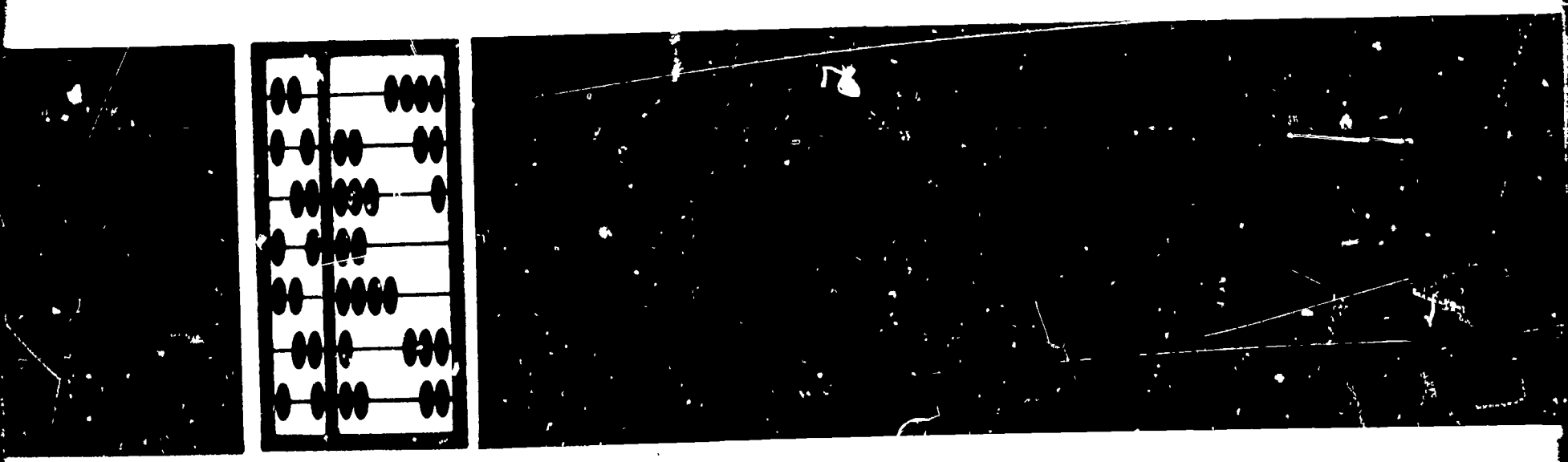
William G. Savard



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November 1, 1967

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INTRODUCTION

The Hawaii Department of Education has been called upon several times during the past few years to produce general plans for public education in Hawaii. These master plans or "blueprints" as they have been variously called have not been forthcoming in a form satisfactory to those concerned. There have been several problems involved with the efforts which have been conducted thus far. This paper will be concerned with only one of those problems, namely the lack of a theoretical model upon which to base the plans. It is the feeling of the author that without an explicit model upon which to base the planning effort, the chances of producing an adequate, clear, complete, and integrated plan are slim indeed. The experience of the past few years supports this contention. This paper is modestly offered as a model which might be useful in formulating the master plan or "blueprint" for the future efforts of the Hawaii Department of Education.

A DYNAMIC GENERAL PLANNING MODEL

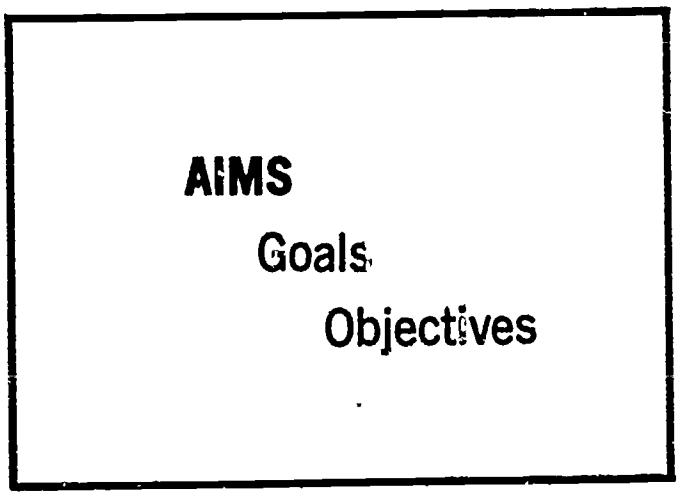
The problem we are concerned with is, stated in its most general terms, how to bring about change so that we will have an educational system better than that which we presently have. Recently in Hawaii there has been considerable discussion of the aims of education, the goals of education, and educational objectives. These terms mean essentially the same thing, but at differing levels of generality. As presently used in the Department aims refer to those aspirations toward which we work on the most noble and elevated plane, the attainment of which may depend upon factors far beyond our control but which depend, at least in part, upon our efforts. The attainment of these aims is not guaranteed by our efforts, there are too many other factors involved, but, our lack of effort, or misdirected effort, could certainly frustrate the attainment of those noble aims. For example, the self-fulfillment of each individual cannot be assured by the public school system but if we do not do our part in the larger educational effort we can certainly frustrate that aim. Aims, then, are those educational aspirations to which we contribute but which depend, in turn, upon other institutions, individuals, and, perhaps, upon the accidents of history.

Goals are more direct, and more within our control. Goals are what we expect to attain as the result of mounting and conducting certain educational programs. Goals are hopefully quantifiable, are at least specifiable, have a time dimension and are generally expected to be

within our institutional capabilities. The accomplishment of goals contributes to the attainment of larger aims. We, of the Department, are responsible for the accomplishment of goals.

Educational objectives are more specific still. These are the specifics we hope to attain by the conduct of certain activities within programs. The summation of the objectives should result in the attainment of the goals which in turn should contribute to the aims.

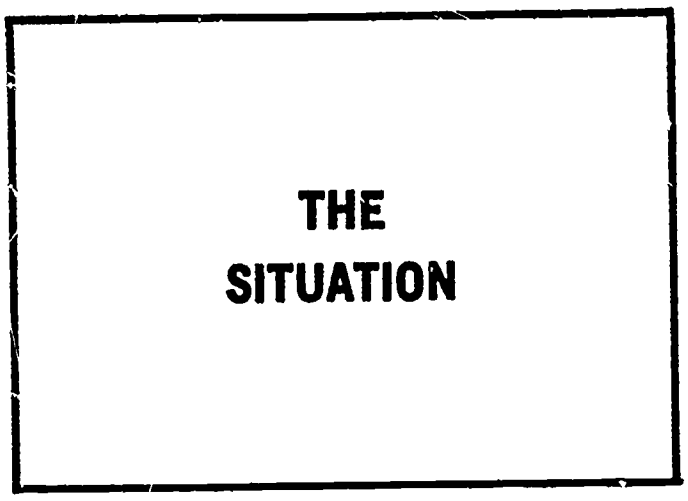
This model will treat aims, goals, and objectives as simply different orders of specificity of the same class of requirements. In short, aims, goals, or objectives are statements of <u>what we want.</u> In our model we will represent them as below in order to suggest the universal applicability of the schema.



(What we want)

As soon as we consider what we want, and this is a major current concern of the Board of Education and oth r elements of our school system, our thoughts turn naturally to <u>what we have.</u> For purposes of this

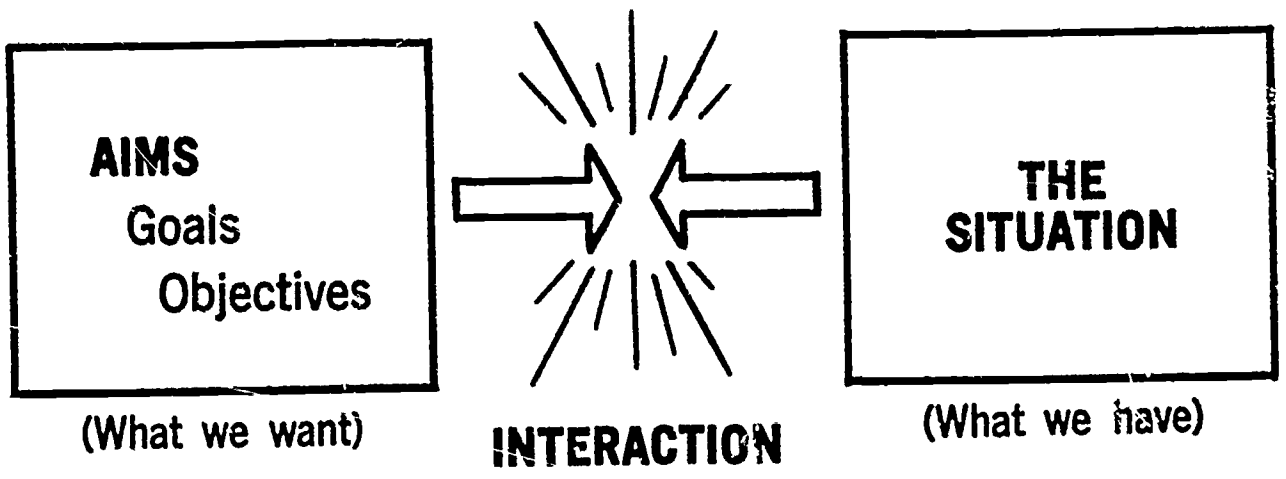
model let us label what we have as THE SITUATION.



(What we have)

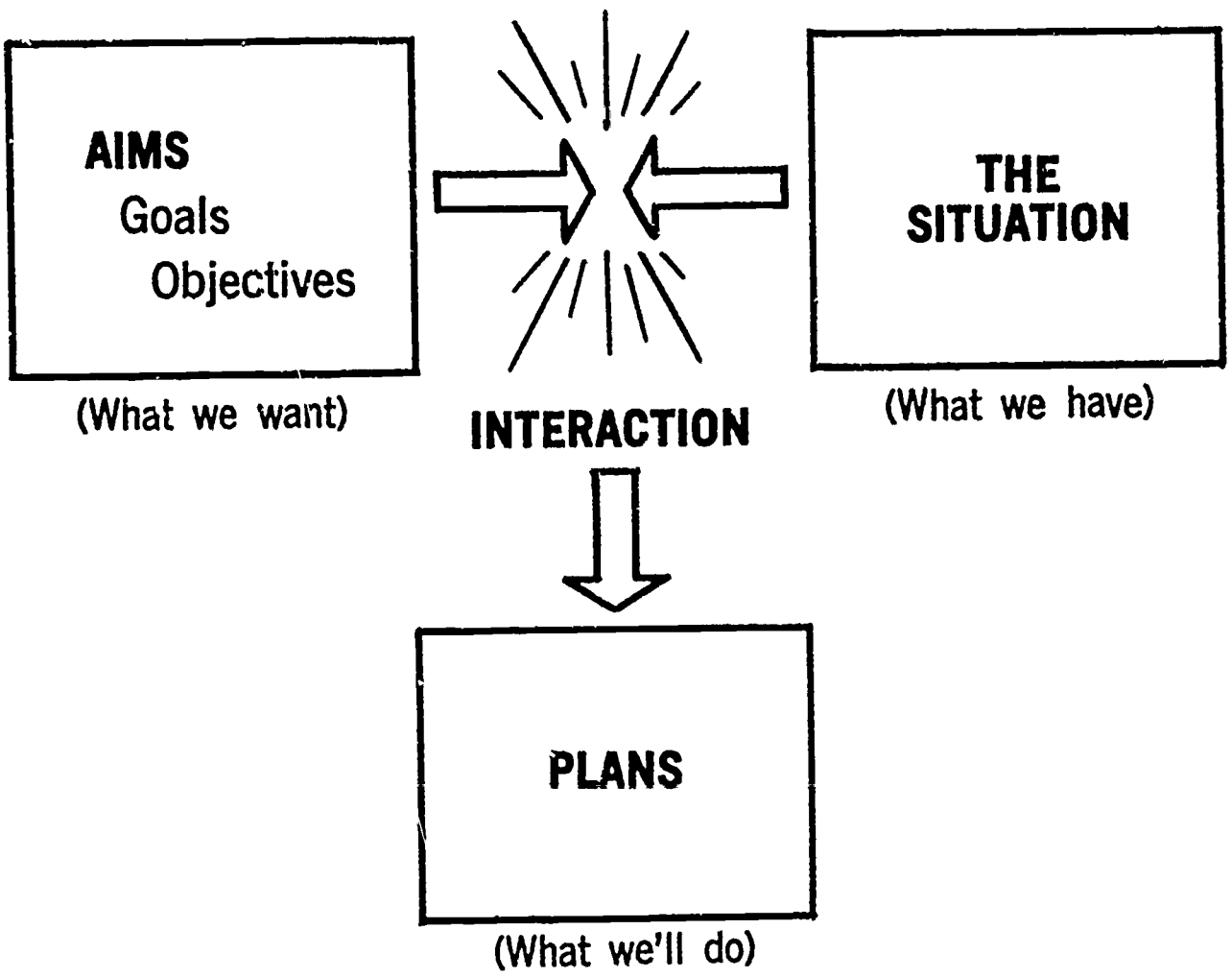
This is intended to suggest a certain generality comparable to the aims, goals, and objectives mentioned above. THE SITUATION may refer, at the most general level, to the educational condition of all of the children of Hawaii or it may refer in its most specific sense to the condition of a certain child's ability to spell, at a particular point in time, in a certain classroom.

The next necessary step is to arrange for a deliberate comparison of the aims and the situation. The confrontation of the aims and the situation should result in interaction and might be represented as follows:



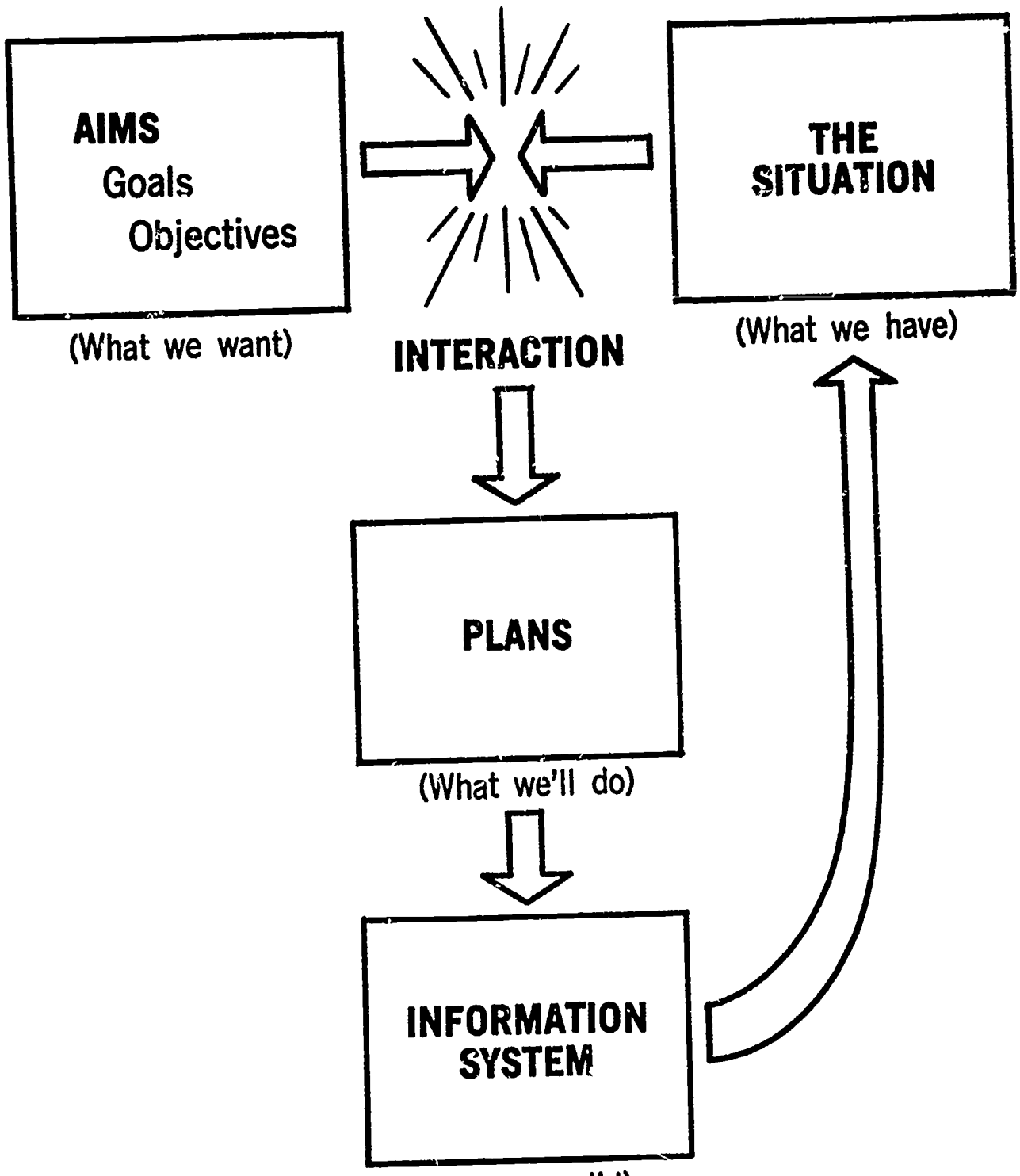
(What we want) INTERACTION (What we have)

Seeing that we are dealing with human affairs it is quite apparent that the interaction will not be neat and tidy. However, the interaction should result in the production of a plan which is an attempt to establish order and is essentially a statement of <u>what we will do</u>. It is at this point that formalized planning procedures and techniques such as Programming Planning Budgeting System (PPBS) and Program Evaluation and Review Technique (PERT) are used. Our diagram now looks like this:



While, in the past, there has never been a clear cut explication of a model for planning within the Department of Education there has been implied a rather oversimplified paradigm of how the planning-implementation process functioned. It was assumed to proceed in a

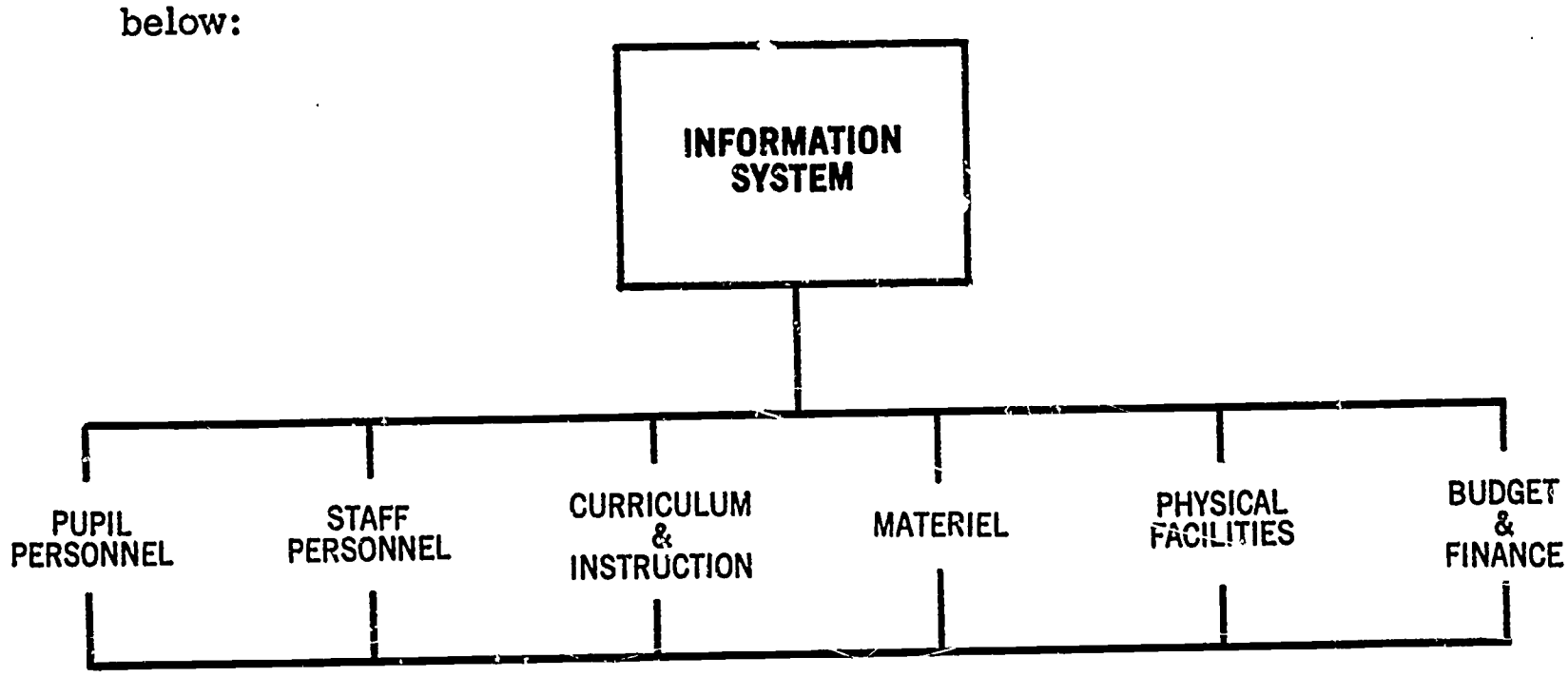
somewhat linear fashion. First of all there were goals and objectives, which everyone presumably understood and accepted, then followed plans from which we could determine exactly what to do. Finally there was an evaluation which told us precisely how well we did. However, the process has never worked in such a neat and clean fashion. The implied model might have worked and been useful if it were possible to suspend the life of the school system for a period of time when new programs were being planned, installed, and implemented. Such is not the case, however, and our new planning model must allow for the very important fact that our system is vital, it lives day by day -- children continue to come to school and must be served. In the words of our superintendent our system is like a great river, it flows onward. Any planning model must be dynamic in order to cope with the rather substantial momentum of the system. This suggests the need for a comprehensive information system which can tell us <u>what we have done.</u> Measures of what we have done will seldom correspond 100% with what we planned to do. This new information then feeds back to modify our perception of the situation as indeed we expect the implementation of the plans to have modified the actualities of the situation. Fully developed, our model now is as follows:



An essential feature of this model is that it is dynamic, i.e., its various parts are constantly changing. The situation is in constant motion and has a dynamism of its own. Our efforts in accordance with our plans are attempts to modify the situation. As our perception of the situation changes we may modify our aims, goals, or objectives. At times we may raise or lower our aspirations as they relate to a particular situation. As the situation and aims change so will our plans for the accomplishment of those aims. Our planning must be clear cut yet flexible.

AN INFORMATION SYSTEM

A few words need to be said about the concept of the information system. Recent experience in planning efforts within the Department of Education highlights the need for a comprehensive integrated information system. Frequently planners have been forced to spend a major portion of their time trying to find out about the system. Much of what they have had to search for painstakingly should be a regular part of a total information system. The total information system should have six major sub-systems: pupil personnel, staff personnel, materiel (books, supplies, equipment, etc.), curriculum and instructional programs (including testing), physical facilities, and budget and finance. The essence of our efforts is that a child is taught a curricular program by a teacher, using materials; this effort takes place in some kind of physical facility and unfortunately, it all costs money. If we are to plan for the accomplishment of our educational goals then it is essential that we be able to interrelate data and information from each of these sub-systems. The information system might be represented as below:



A further specification for such an information system would be that it would be transaction based, i.e., data for research or planning purposes would be produced as an inexpensive by-product of performing transactions. For example, teachers must be paid and considerable personnel information is needed to accomplish the transaction of making payment. This same data should feed into the information system for planning purposes. Similarly, the purchase of materiel requires information to accomplish the transaction; this same information has planning value if produced in interrelatable form. And so it is with much of the information required to conduct the day by day affairs of the school system. It should be pointed out that high speed electronic computers such as the Department presently has installed make it potentially practical to operate such an information system. However, an information system is much more than a computer, it involves large amounts of information handled in more traditional ways.

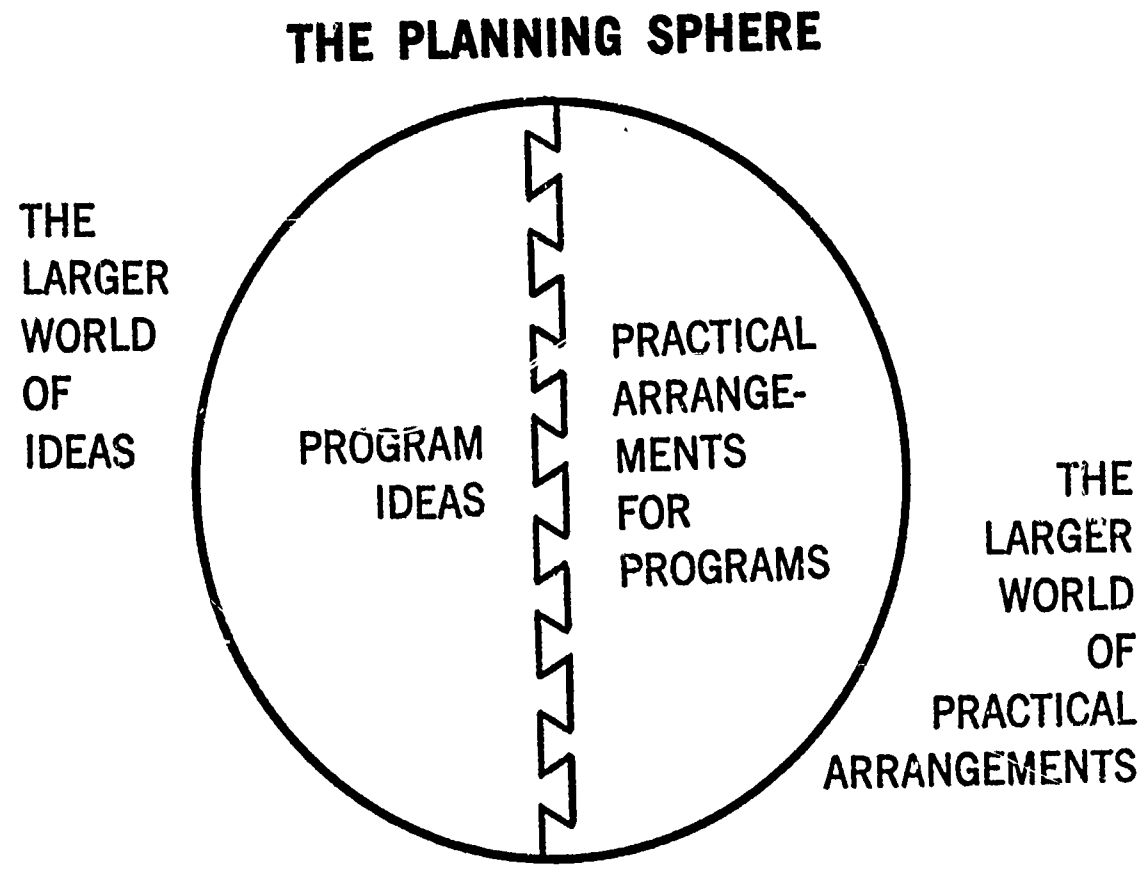
A NEW VIEW OF EVALUATION

Necessary to this dynamic planning model is what might be termed a new view of evaluation. As pointed out recently by Dr. John Brownell of the Hawaii Curriculum Center in a yet unpublished paper, education has traditionally depended upon evaluation models derived from experimental psychology and sociology. The controlled experiment with evaluation after the fact and the status survey, which gives a picture of "a slice of time" have been the two dominant models in educational evaluation. These two models will continue to have usefulness for some purposes of education but it is increasingly apparent that a new approach is needed. This approach takes the viewpoint that the purpose of evaluation is to provide decision makers (and they exist on various levels) with the necessary information needed to make decisions about a process <u>while it is still going on</u>. This allows for the modification of the process while it is still under way. In other words, we should not have to "spoil a batch" before we modify our process. The controlled experiment model may be satisfactory for work with non-human subjects or for inconsequential outcomes. However, our present tasks in planning our educational system are very human, important, and usually, large scale. This indicates the need for feedback loops being built into every plan as suggested by the planning model. The information entering the loop must be accurate, up-to-date, useable, and relevant to the particular plan or set of plans under consideration. Furthermore, different kinds of information in different formats may be needed

by decision makers at various levels. The information needed by a classroom teacher to improve his teaching of reading to a particular group of students will be related to but different in kind and format from the information needed by the Board of Education to decide whether or not to allocate an additional half million dollars to the statewide reading program.

CHECKS

There are two aspects of any educational plan (no matter how developed), which need to be carefully considered. If we may be allowed the use of some rather extravagant language we might represent them as follows:



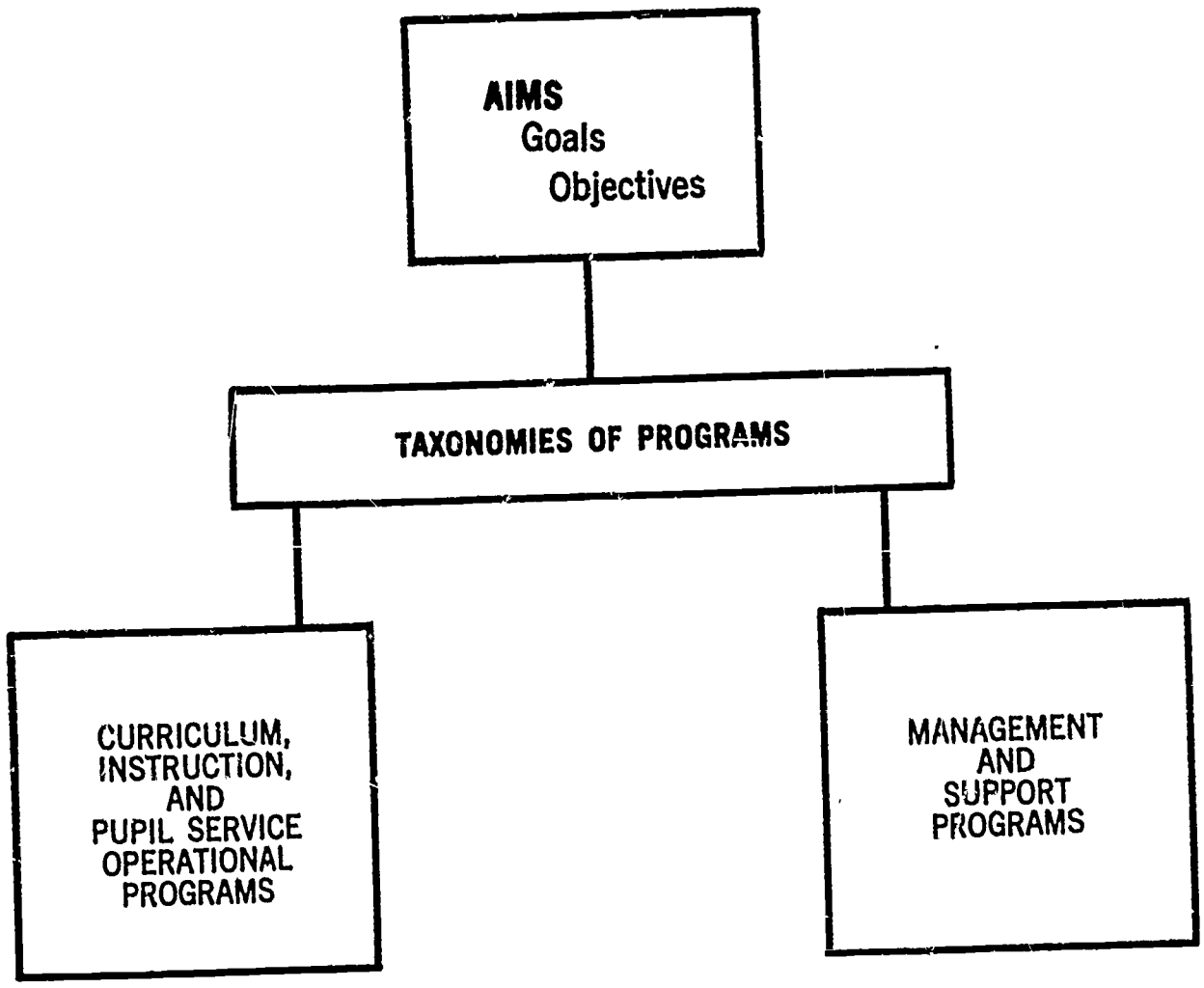
This figure is intended to suggest that every plan must account for both the ideas involved and the practical arrangements necessary. The ideas must be internally and mutually compatible and, further, must be externally consistent with the larger world of ideas. For example, the mathematics we teach in school must be not only consistent within our mathematics program but must also be consistent with mathematics as seen by the outside world mathematicians. Similarly, practical arrangements have to be accounted for. These arrangements allow us to accomplish the aims, goals, or objectives derived from the world of ideas.

The practical arrangements for a particular plan must be consistent with the larger programatic practical arrangements of the Department in a way that is analogous to that in which the ideational aspects of a plan must be consistent with the larger world of ideas. For example, if a particular educational program calls for the building of a certain physical facility we must check to see (1) that it is truly supportive of that program, and (2) that it is consistent with the statewide long range capital improvement program. If it is not, then it may be necessary to modify either or both the immediate plan and the long range capital improvement program.

Every plan needs to be tested by asking if both the world of ideas and the world of practical arrangements have been accounted for. Each of these aspects must be dovetailed into the other so as to make an integrated functioning whole. Checklists for both of these aspects could be developed as an aid to planners.

AND BALANCES

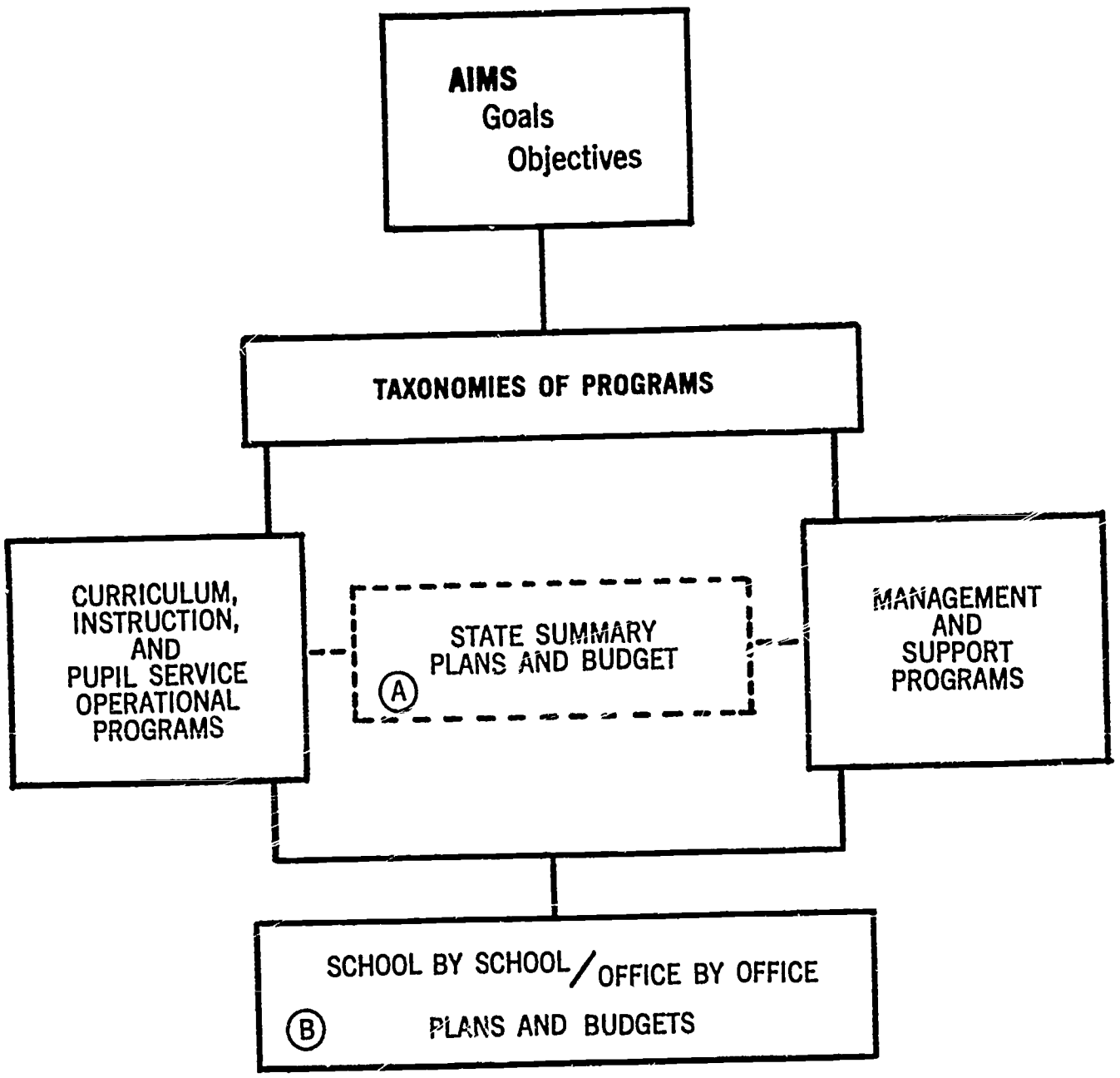
It is important to consider the proper relationship between what have come to be known as state programs and school programs. The first point that needs to be made is that such a distinction is in some respects unfortunate to the extent that it suggests separateness or differences. What is urgently needed is a way of seeing the relatedness of state and school programs. In order to do this we must return to the first element of our dynamic general planning model, that of aims. In a previous paper (The Hierarchy of Curriculum and Instruction System Documentation) it was shown how the aims and goals of the department could be transformed and expanded into a set of explicit program descriptions arranged in a taxonomy to show interrelationships. In a subsequent paper (The Aims of Education, Part IV) this idea was further refined and it was pointed out that we have two general types of programs, operational programs in the area of curriculum, instruction and direct service to students and management and support programs which exist for the sake of the operational programs. We might represent them as follows:



These are what might be termed statewide programs; they are the overall plans and methods of operating so as to accomplish our general aims, goals, and objectives for the whole state. However, the department's basic unit for the allocation of resources and for the control of operations has been, and ought to remain, the school. Therefore, we must show a compatible relationship between school by school programs (plans and budgets) and statewide programs. Our school by school budgeting process should play a vital role in this respect. (It should be pointed out that there are some units other than schools, usually offices, to which and through which resources are allocated and expended.)

Seeing that we are a single unified school system we must go to the legislature with a single budget and a single set of integrated plans for the whole state. But that summary must represent the sum total of the school by school/office by office plans and budgets which in turn must be compatible with the statewide programs. The model of our framework of relationships is now complete and may be shown as below:

THE FRAMEWORK OF RELATIONSHIPS



It should be immediately apparent that this schema demands certain

balances. The state summary plans and budget must be an accurate representation of both the operational and management programs. It must be clear as to how the management programs support the operational (educational) programs and how they fit into an overall taxonomy program. School by school plans must be consistent with both the statewide operational (educational) programs and the statewide management programs. Finally the state summary budget must balance with the summation of the school by school budgets. As shown in the diagram, A must equal B, not only in a financial sense but also in a programatic sense. If A and B are not equal, then modifications are necessary in either or both the school and state plans.

THE RESOLUTION OF ISSUES

In a large and complex organization such as our Department of Education issues tend to surface with apparent independence and awkwardness. If we try to resolve these issues as they come and without casting them into a larger frame of reference we may create more problems than we solve. As suggested in an earlier set of notes entitled "Contemporary Issues in Hawaiian Education," the resolution of issues should result in the setting or modification of goals and entry into the dynamic planning cycle. As issues are considered it would be well if we were to test alternate solutions in the dynamic general planning model and its two corollary paradigms, the planning sphere, and the framework of relationships.

Suppose that a particular solution to an issue is being proposed. Casting it into the dynamic general planning model we might ask, what is the present situation, how will this solution affect our aims, what plans will have to follow, what information will be necessary, what is the new situation likely to be? Considering the planning sphere we might ask, does the plan required by this resolution of the issue provide for internal and external consistency of its ideational aspects, are the practical arrangements provided for and are they genuinely supportive of the ideational side of the plan, are the practical arrangements consistent with larger programatic arrangements on a statewide basis? Turning to the framework of relationships we will immediately see that it is necessary to ask how this solution and its programatic

implication will fit into the overall taxonomies of programs. What displacements might it cause? Is it primarily operational (educational) or management, or a combination of both? What effect will this particular solution have upon school plans and budgets? Which schools and/or offices are affected? What effect will it have upon statewide plans and budgets? And finally, completing the cycle and returning to the dynamic general planning model, what effect will this solution have upon the long term dynamic situation, how will it affect the direction and momentum of that situation? Is this the direction and rate we want to travel?