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THE HIERARCHY OF CURRICULUM AND INSTRUCTION SYSTEM DOCUMENTATION AND THE CYCLE OF CURRICULUM AND INSTRUCTION FUNCTIONS, (A PAIR OF RELATED PAPERS).

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DESCRIPTORS- *CURRICULUM, *INSTRUCTIONAL PROGRAMS, DOCUMENTATION, SYSTEMS APPROACH, PROGRAM PLANNING, CURRICULUM GUIDES, PROGRAM DESCRIPTIONS, COURSE DESCRIPTIONS, INSTRUCTIONAL MATERIALS, LESSON PLANS, PROGRAM EVALUATION, *STATE DEPARTMENTS OF EDUCATION, SCHOOL SUPERINTENDENTS, BOARDS OF EDUCATION, PRINCIPALS, DEPARTMENT DIRECTORS (SCHOOL), *EDUCATIONAL PLANNING, *STATE PROGRAMS, HAWAII STATE DEPARTMENT OF EDUCATION,

CURRICULUM AND INSTRUCTIONAL PROGRAMS ARE CONSIDERED TOGETHER AS A DYNAMIC SYSTEM MARKED BY GROWTH, CHANGE, AND MODIFICATION. DEVELOPING THE CONCEPT OF A SYSTEMS APPROACH, SEVEN BASIC DOCUMENTS UTILIZED IN THE EDUCATIONAL PROCESS ARE RANKED ACCORDING TO SOURCE, THOSE RESPONSIBLE FOR THEIR FORMULATION, AND PROVISIONS FOR CONTROL--(1) LAW, (2) BOARD POLICY AND RULES, (3) PROGRAM DESCRIPTIONS, (4) COURSE DESCRIPTIONS, (5) STUDENT MATERIALS, (6) TEACHER MATERIALS, AND (7) DAILY LESSON PLANS. SUGGESTIONS FOR PROGRAM DEVELOPMENT INCLUDE PARTICIPATION IN FORMULATION BY ALL GROUPS DIRECTLY CONCERNED AND IN DEFINING THE PROCEDURE IN A SERIES OF STEPS FROM PROGRAM TITLING TO A PLAN FOR EVALUATION. AS AN ILLUSTRATION OF THE RELATIONSHIPS BETWEEN ORDERS OF PROGRAMS, A TRUNCATED TAXONOMY OF PROGRAMS IN DESCENDING ORDER OF GENERALITY IS OUTLINED--GENERAL PROGRAM, PROGRAM, SUB-PROGRAM, AND COURSE. AS AN AID TO THE ACCOMMODATION OR ACHIEVING OF CHANGE, A LOGICAL ORDERING OF FUNCTIONS IS OUTLINED AND DESCRIBED, WITH FUNCTIONS ORDERED ACCORDING TO THOSE RESPONSIBLE FOR THEM, ALL PERSONS OR GROUPS ASSISTING AND PARTICIPATING, AND THE PERSON OR GROUP EXERCISING CONTROL. EA 001 353 IS A RELATED DOCUMENT. (JK)

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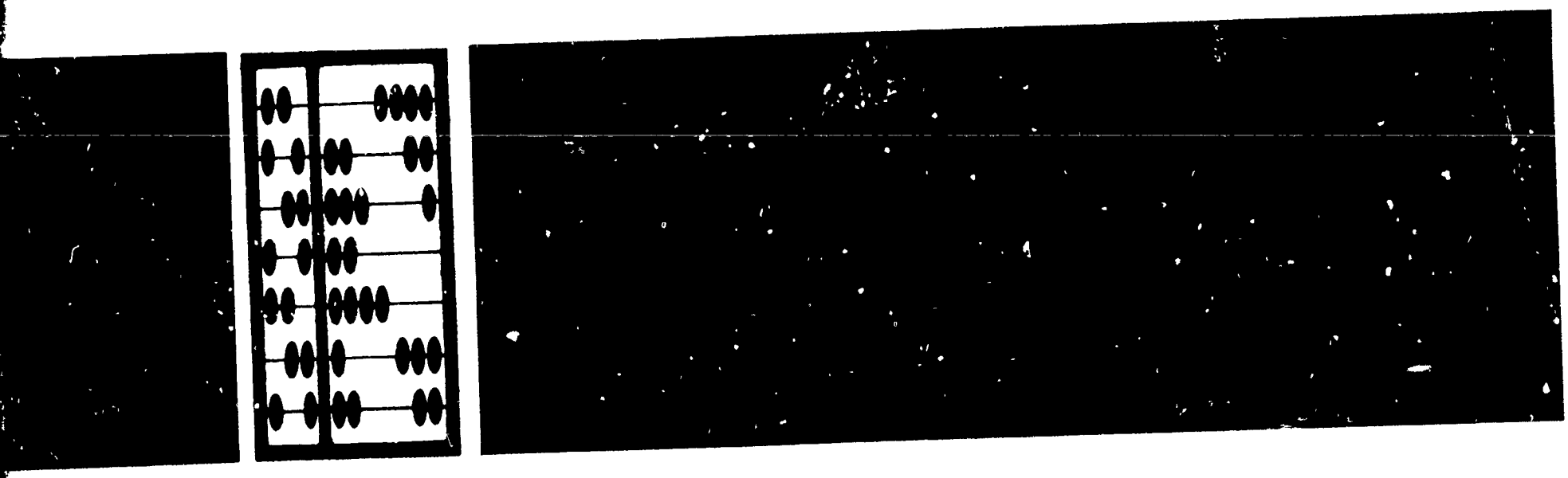
AND

THE CYCLE OF CURRICULUM AND INSTRUCTION FUNCTIONS

(A PAIR OF RELATED PAPERS)

WILLIAM G. SAVARD



State of Hawaii
Department of Education
September 20, 1967

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A COMMON FOREWORD

The following two papers are separate but closely related. The reader is urged to consider both of them together.

Both of these papers were prompted by the same general situation. The public school system of the State of Hawaii, like many other large unified school systems across the nation, has reached a critical point in its development. This system, like most others, has grown by accretion, and planning has not been systematic. In recent years public aspirations for education have risen sharply. Simultaneously there have been substantial changes in the world of knowledge. The pressure of these two phenomena on a growing but largely unplanned curriculum and instruction system has become intolerable.

The time has come to consciously plan our curriculum and instruction efforts to cope with the complex factors involved, otherwise our system may disintegrate under the increasing pressures.

The first paper is entitled The Hierarchy of Curriculum and Instruction System Documentation and deals with planning the documentation of the ideas which determine what is taught in our schools. The second paper is entitled The Cycle of Curriculum and Instruction Functions and deals with planning the division of labor necessary to carry out the cycle of functions inherent in operating an educational system.

THE HIERARCHY OF CURRICULUM AND INSTRUCTION SYSTEM DOCUMENTATION

The documentation of any system is extremely important if that system is to extend beyond the mind of any one man. The more complex the system the more important is its documentation.

It is a major assumption of this paper that the curriculum and the instructional program of our schools are, or at least ought to be when considered together, a system. Our curriculum and instruction system is very complex and hence its documentation is of a high order of importance. We are using the term system here in the same sense that our colleagues in such fields of endeavor as space technology, computer science, economics, and sophisticated business management use the term. At the very minimum a system may be defined as a group of interrelated, interacting parts which exhibit some degree of interdependence and overall unity. Systems are categorized in many ways but there are two immediately apparent and useful classes, closed systems and open systems. Examples of closed systems would be a chemical reaction taking place within a sealed container and an old fashioned family subsistence farm in an isolated location. Needless to say pure examples of closed systems are hard to find in our everyday world. More frequently we find open systems. The distinguishing characteristic of an open system is that it receives inputs from and delivers outputs to its surrounding environment. As far as education goes this is a reminder that we are served by and in turn must serve the community in the largest sense. Thinking of education as a closed system will result in its gradual intellectual and financial starvation and death.

Our curriculum and instruction system can be further characterized as being vital and dynamic. Growth, change, and modification are a part of its general

nature. Along with this growth and change is a need for stability in the form of dynamic equilibrium. Our professional colleagues who work in the field of systems theory would probably describe the ideal curriculum and instruction system as an open organismic system. That is to say, it has many sub-systems and itself is a part of a larger system, is dynamic and vital, has outputs and inputs to and from its environment and has a feedback mechanism which enables it to maintain a state of dynamic equilibrium.

An educational system is primarily a system of ideas. The successful functioning of that system will depend in part upon how well those ideas are recorded and organized. This is the documentation problem, the committing of those ideas to definite form on paper and the arrangement of those papers in a systematic fashion so as to be useful in the operation of schools. In other words the paper world of ideas must be the plan for and in turn the accurate reflection of the real world of classroom actualities.

For the past several years the major curriculum and instruction document in use has been the so-called curriculum guide. It is a major contention of this paper that the notion of a curriculum guide, as a single document, is not useful, perhaps it is even harmful. The efforts of program specialists and others to produce curriculum guides in the past few years have not been successful. The format, which controls content, of the guides has not been consistent. At best the guides have been a potpourri of vague plans, subject matter content, suggested methods and "tricks of the trade" for the teacher. They have been at once too general and too specific. Focus has been lacking for overall management purposes. On the other hand classroom teachers have found the curriculum guides to be lack-

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ing in practical day-by-day utility. It is unrealistic to expect any one document to serve the several levels of need in a curriculum and instruction system. Furthermore, the program specialists, whose title suggests that their major function would be the design of programs, have had their energies diverted to other kinds of functions with the result that many of the curriculum guides are woefully out of date.

It is hereby suggested that a major change in approach to the problem of documenting our curriculum and instruction system is immediately necessary. It is necessary because the real system of curriculum and instruction tends to pattern itself after the documents. Confused documents result in a confused educational system.

It must be recognized that there is a hierarchy of documents which shape the actualities of education. These range all the way from law down to a teacher's daily lesson plans. Each level of this hierarchy of documents has its own function but must be consonant with the levels above.

The attached chart, entitled The Hierarchy of Curriculum and Instruction System Documentation, displays the levels of the documents in the leftmost column. Also shown are the sources of the ideas contained in the documents and, in some cases, the sources of the documents themselves. The column headed responsibility indicates who is responsible for the documents, seeing to it that they are up-to-date, complete, consistent, useful, and available. The rightmost column shows who provides the control over whoever is responsible for the documents.

Taking the topmost line as an example we see that law as it affects education is the responsibility of the legislature. The ideas which become the substance

THE HIERARCHY OF CURRICULUM AND INSTRUCTION
SYSTEM DOCUMENTATION

DOCUMENT	SOURCE	RESPONSIBILITY	CONTROL
Law	The People, Board, Professional Associations, Legislature	Legislature	The People
Board Policy and Rules	The People, State Dept. Staff, Board	Board	The People
Program Descriptions	State Dept. Staff, Academic Community, Hawaii Curriculum Center, Nat'l Curriculum Studies & Others	State Dept. Staff	Board
Course Descriptions	State Dept. Staff, Academic Community, Hawaii Curriculum Center, Nat'l Curriculum Studies & Others	State Dept. Staff	Board
Student Materials a. Textual or common b. Supporting Collections of Books, Film, etc.	Various a. Office of Instructional Services & Its Branches b. Hawaii Curriculum Center c. National Curriculum Centers d. Commercial Pubs. e. Other School Systems f. Ad Hoc Committees g. Individual authors and teachers	State Dept. Staff	Board
Teacher Materials a. Guides to Student Materials b. Handbooks (1) On teaching methodology (2) On subject matter techniques c. Resource Units d. Tests and other evaluative devices	Various a. Office of Curriculum & Instruction b. Hawaii Curriculum Center c. National Curriculum Centers d. Commerical Pubs. e. Other School Systems f. Ad Hoc Committees g. Individual authors and teachers	State Dept. Staff	Board
Daily Lesson Plans	Teacher	Teacher	Principal and/or Department Chairman

of educational laws derive from multiple sources. They come from the people generally, the Board of Education specifically, professional associations, and the legislators themselves. The people provide the general control over the legislature. This paragraph suggests the way in which we might read across the chart.

Looking at the leftmost column and reading downward we can see the hierarchy of documents which affect what actually happens in the classroom. It is a major contention of this paper that these documents must be considered as separate, distinct, but related in this hierarchy. Failure to do this will result in the continuation of our present confused situation.

At the present time our most critical needs are at the level of program descriptions and course descriptions. This fact, vaguely apparent for some time, has been brought sharply home by the recently imposed requirement that we institute a program planning-budgeting system (PPBS). This planning and budgeting system, currently being used by the Federal government and other jurisdictions demands clear cut descriptions of programs. The bare fact is that we did not have any of our curriculum or instructional programs described in such a way as to be useful for these planning and budgeting purposes. It might be added that even more important they were not described so as to afford maximum educational usefulness.

Our first order of priority must be to develop adequate and usetul program descriptions. This task is the responsibility of the state Department of Education staff, particularly the program specialists of the Office of Instructional Services. This is, of course, an enormously important task and there must be multiple inputs to this effort. As the chart suggests, ideas and other contributions should come from many sources. For example, in the case of a science program, the scientific

community should contribute its ideas, in the case of a vocational program the employers and labor unions should make a contribution. Special purpose institutions such as the Hawaii Curriculum Center should contribute if they have projects in a particular field of study. Selected experienced teachers should contribute. The College of Education and the University generally should contribute. In a larger sense national curriculum efforts and even international scholarship should have its impact either directly or indirectly. In short, the point is that this defining or describing of a program is not a one-man task, it is so important that we must bring all possible resources to bear on it. However, we must fix responsibility for the quality of the documentation in one place. (Incidentally we might well be reminded that with this responsibility we must grant sufficient authority and resources to do the job correctly and expeditiously.) Rather than attempt a "dictionary type" definition of the word program at this point we will develop a definition gradually over the next few pages.

The program description would have the following format:

1. Program Title
2. Program Description Summary
3. Statement of Need (Justification)
4. Program Goal (General)
5. Program Objectives (Specific)
6. General Description of Activities (with alternatives)
7. General Plan for Evaluation

The Program Title should be generally descriptive. The Program Description Summary should tell in general terms what the program is about, what area of study or service is involved; the population to which it is addressed should be specified, and the general approaches should be described. The Statement of Need

should describe the target population, its condition as regards the concern of the program, and the importance of the concern of the program. The Program Goal should be stated in general but clear terms. The goal must have a time dimension, must be specifiable, be attainable and reasonable. The Program Objectives are more specific than the goal. Usually there will be more than one objective. They should be stated in group behavioral terms and must be specifiable. If possible they should be quantifiable. However, we must guard against false, trivial or inadvisable quantification. The most difficult to write (and important) part of the program description will be the Goals and Objectives. The General Description of Activities tells what will actually be done. Alternative activities should be described if they are feasible.

Finally, a General Plan for Evaluation should be described. This plan must relate directly to the Goal and Objectives and provide us with the information which will allow us to determine to what extent the goal has been achieved.

The program description document need not be long, indeed it might be relatively short, but it ought to be profound. It should be the distillation of the best thinking on the subject. Its congruence with the real world is a necessary and specific condition of the success of the program.

A word might be said about the general characteristics of programs. Being parts of a system, programs are in effect sub-systems and have many of the characteristics of systems. A program must display an overall unity, otherwise it probably ought to be more than one program. This unity is manifested in a specific approach or specifically related kinds of approaches to common problems of a definable, and, by at least one criterion, generally homogeneous population. A necessary characteristic is that the entire program have a common goal and common

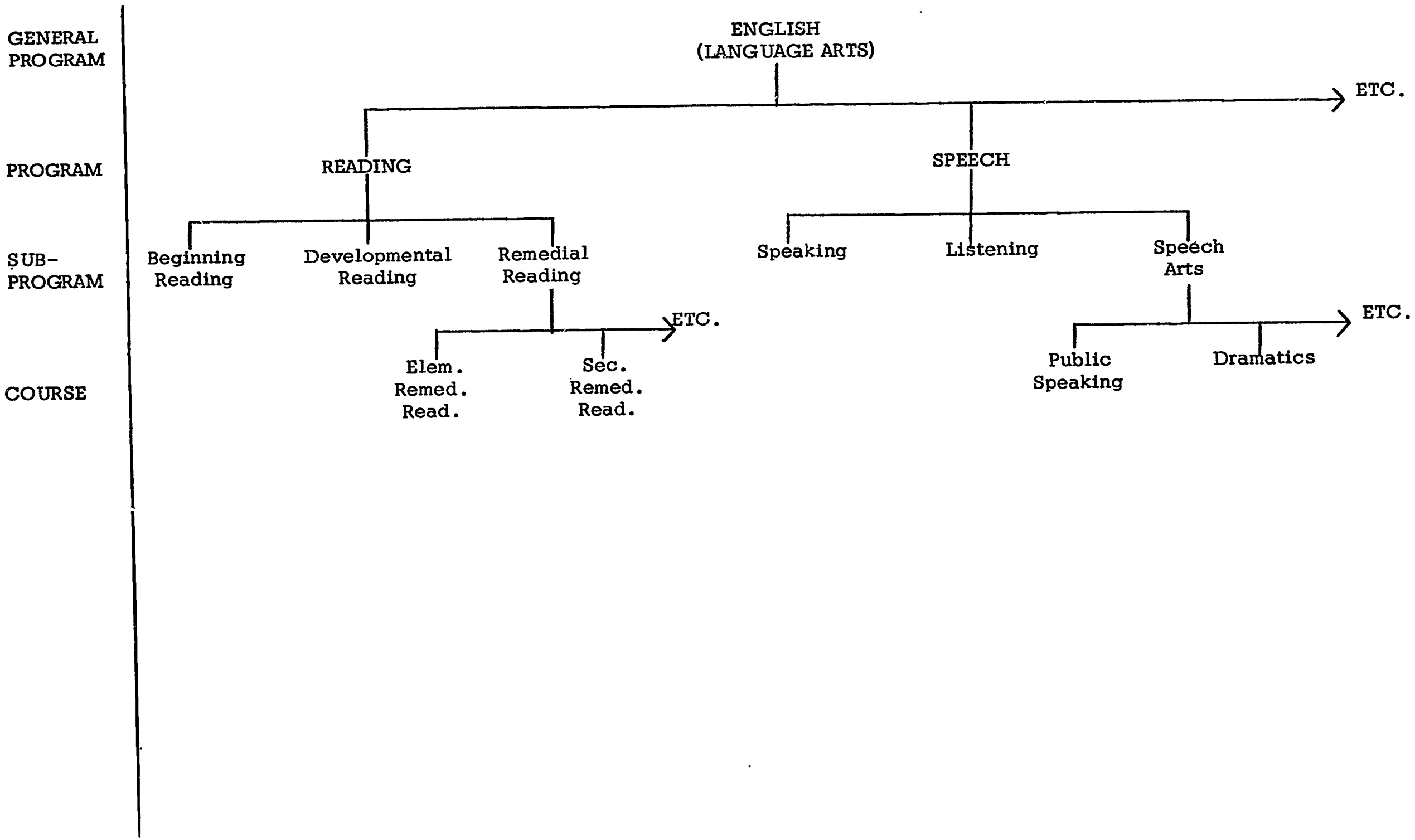
objectives. Finally it should be pointed out that there are different orders of programs. In effect there is a natural hierarchical ordering of programs. The ordering is from the general to the specific and a taxonomy can be drawn to illustrate the relationships. At some arbitrary points along the branches of the taxonomy we change our terminology and speak of courses rather than programs.

The attached taxonomy of programs is an illustration of the relationships between orders of programs. The following labels have been adopted for the orders in descending generality, General Program, Program, Sub-program, and Course. The labels themselves are arbitrary and not important. They are merely for convenience. In a technical sense they all represent programs. Due to space limitations the taxonomy presented as an example is truncated but enough of it is shown to indicate the hierarchical relationships. Each program should contribute to the attainment of the goal of the next higher order program. It should be understood that the taxonomy serves not only as a graphic representation of the description of the program but also as the basis for further discussion and redefinition of that program. To illustrate, in the truncated example shown it might well be argued as to whether or not speaking and listening should be separated or indeed whether or not speech should be included under English. The point is that the taxonomy provides a basis for discussion.

(It seems obvious that one of the very first tasks to be accomplished in the planning of our curriculum and instructional system would be to sketch out all of the taxonomies of our general programs to give us a general map of the terrain in which we are operating.)

Course descriptions are analogous to program descriptions but are of a lower (more specific) order of generality. The format to be followed is the same as for the program description but with substantially more detail in the objectives, acti-

TAXONOMY OF PROGRAMS



vities, and evaluation sections. The objectives would be stated in individual behavioral terms rather than group behavioral terms as in the case of higher order program objectives. The same degree of detail would be called for in any sub-program that did not further break down into courses. In effect the important factor would be for the lowest order program to have sufficient detail to allow us to project our needs and plan for teaching staff (including numbers, kind, and training), student materials, teacher materials, general logistical support, space, and time. It is at this point that specifications for special teacher training should be generated. This course (or lowest order program) would also specify teaching techniques and methodology in the activities section. Acceptable alternatives should be specified. As in the case of higher order programs there should be many sources contributing to the content and structure of the course descriptions. Experienced classroom teachers could make valuable contributions at this level. However, the final responsibility must be lodged with the program specialist. The major task of the program specialist is to manage and coordinate the development of and be responsible for program and course descriptions.

If we look again at the chart called Hierarchy of Curriculum and Instruction System Documentation we will note that the State Department staff also has responsibility for both student and teacher materials. As specified previously, responsibility for documents generally means seeing to it that they are up to date, complete, useful, and available. However, it should be borne in mind that when we say document we mean primarily not the piece of paper but rather the ideas recorded thereon. It is not being suggested that the program specialist be charged with managing the logistics of pupil and teacher materials. What we do mean is that the program specialist is responsible for approved book lists and other devices for controlling the documents. Substantial refinements must be made to our tech-

niques for developing, controlling, and using approved book lists.

Student materials are generally of two types -- common and supporting. There is no magic line of demarcation between the two. By common is meant those materials used by all members of classes or sub-groupings of classes of students. Examples of these might be a traditional hard cover textbook, an expendable workbook, a paperback novel of which every member of a certain group in an English class has a copy or a scientific device used by every member of a laboratory section. By supporting collections we mean collections of single copies (or small numbers of copies) of books, films, tapes, or other media which are shared by students.

In most cases these materials would be purchased from commercial publishers. The important fact to remember is that when you buy the document you are buying the ideas contained therein. This statement is not intended as a warning against buying propaganda but rather that the purchases of materials must be consistent with the goals of the program and course descriptions. Well written program and course descriptions will make the selection of materials easier and more consistent.

Student and teacher materials might occasionally be generated by the Office of Instructional Services but more likely they would be purchased from a publisher, borrowed and reproduced, or purchased, from another school system or purchased from a large scale national curriculum project. Purchases would be in accordance with the specifications laid out in program and course descriptions. If no suitable materials were available for purchase it would then be necessary to turn to such an institution as the Hawaii Curriculum Center to design and develop special materials. For some special purposes it might be possible to have materials developed by small ad hoc committees or individual authors or teachers. But in every case,

whether purchased "off the shelf" or "custom built" the test of suitability would be implied in the program or course description. The importance of student and teacher materials, particularly student materials, derives from the fact that they are the vehicles of the content and they elicit the teaching methodology as well. Program goals will have no effect unless supported by suitable materials.

It is imperative that program specialists not get deeply involved in the development of student or teacher materials. There is not time for both that and the development and maintenance of adequate program and course descriptions.

The sources of teacher materials are essentially the same as for student materials and the methods of acquisition would be similar. Buy or borrow what we can, develop and produce what we must, but in all cases within the specifications derived from the program and course descriptions. Examples of teacher materials are guides to student materials (oftentimes these are teachers' manuals accompanying textbooks), handbooks on teaching methodology, handbooks on subject matter techniques such as laboratory manuals, resource units which can be incorporated rather completely into a teacher's lessons, and tests and other evaluative devices.

The final and perhaps most important document in our hierarchy is the daily lesson plan. By daily lesson plan is meant that document which specifies daily and in detail what an individual student, a group of students, or a class are actually to do. This plan may take several forms ranging from lessons worked out in detail by the teacher to citation of certain sections of programmed materials worked out by someone else. The person responsible for the lesson plan is the teacher himself. No one else can make the necessary daily individual adjustments to students. While the source is listed as the teacher it must be recognized he must draw upon all of the documents listed in the upper levels of the hierarchy. Those documents are provided so that the day-by-day activities of the student will be consistent with

the goals of the programs. The ultimate evaluation of the program is the behavioral attainment of the student.

The control of the teacher's daily lesson plans is lodged with the principal, or better yet, the department chairman for a particular subject. This implies that it is essential for principals and department chairmen to understand and appreciate thoroughly the program and course descriptions, otherwise they will not be able to judge the adequacy of the lesson plans or to counsel teachers properly.

THE CYCLE OF CURRICULUM AND INSTRUCTION FUNCTIONS

If we view education as a dynamic and vital enterprise then it appears that there is a logical ordering or cycle of functions which are necessary to accommodate or bring about change. Due to the importance, largeness, and complexity of the educational enterprise change cannot be left to chance. On the one hand it must be fostered; on the other, controlled. Leaving change to chance will result in chaos or an undesirable static condition. What we should be seeking is a dynamic equilibrium, a steady state of planned (but flexible) change in which our goals and directions are clear and realistic.*

The sheer size of our educational enterprise coupled with its complexity suggests that in order to accomplish all of the functions related to curriculum and instruction a certain division of labor is necessary. This division of labor ought to be arranged according to what is deemed to be a more or less natural cycle of functions. It is a major contention of this paper that much of the confusion and ineffectiveness which has plagued our curriculum and instruction efforts in Hawaii (and other states) in recent years has been the result of failure to recognize this "natural" cycle of functions and to systematically provide for a division of labor for their accomplishment.

In order to recognize the natural ordering and cyclic nature of these functions it is required that we think in terms of programs. We have tended not to do this in the past. While the word program has been in almost constant use in recent years its meaning has tended to shift from speaker to speaker, and more important, from

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*See a companion paper, The Hierarchy of Curriculum and Instruction Documentation, pp. 1 and 2.

speaker to listener. As used in this paper the word program has a meaning identical to that used in the companion paper, The Hierarchy of Curriculum and Instruction Documentation.* In short it means a set of unified plans and activities designed and operated to accomplish certain specifiable educational goals and objectives. Programs may be large or small but they have a certain inherent (and planned) unity which gives them identity. Orders of programs may be identified, labeled general program, program, sub-program, and course.** In a sense programs are the building blocks of an educational system.

The functions which relate to programs (of whatever order) are listed in cyclic order in the leftmost column of the accompanying chart entitled The Cycle of Curriculum and Instruction Functions. Reading across the top of the chart we see columns indicating where the basic responsibility for the function lies, where assistance and participation in the accomplishment of the function is derived, and finally in the rightmost column where the control of the function is lodged. It will be noted that in the responsibility column there are direct references in two places (the formulation and adoption functions) to the companion paper and chart. These represent two points of direct connection between the functions of our curriculum and instruction system and its documentation. The two charts should be studied together.

Returning to the cycle of functions chart we can see the logical order of those functions. Programs are formulated (i.e., planned), then administrative decisions are made about the plans after which the program is recommended for official adoption by the Board of Education. Usually special training is necessary

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* Ibid. pp. 4-8.
** Ibid. See chart entitled Taxonomy of Programs between p. 7 and p. 8.

THE CYCLE OF CURRICULUM AND INSTRUCTION FUNCTIONS

FUNCTION	RESPONSIBILITY	ASSISTANCE AND PARTICIPATION	CONTROL
Formulate Programs and Courses	State Department Staff (See Hierarchy of Curriculum and Instruction System Documentation)	Hawaii Curriculum Center and Others	Superintendent
Recommend Programs and Courses	Superintendent	State Department Staff	Board
Adopt Programs and Courses	Board (See Hierarchy of Curriculum and Instruction System Documentation)	Advisory Councils	Legislature via Budget
Provide special programatic training for Teachers and Other Staff	State Department Staff	UH and other institutions of higher education, individual schools, District Superintendent and Staff	Superintendent
Install Programs and Courses	District Superintendent	State Department Staff, Principals Teachers and Other Staff	Superintendent
Conduct Programs and Courses	Teachers	Other School Staff	Principal & Dept. Chairman
Support Programs and Courses	Business, Personnel, and Library Offices of State Department	Business and Personnel Staff of District Office	Superintendent
Supervise Teachers	Principal	Department Heads	District Superintendent
Provide Consultant Help to Teachers and Principals	District Staff	Department Heads within Schools or Feeder Complexes	District Superintendent
Evaluate Programs and Courses	State Department Staff	Office of Research, University and Others	Superintendent
Re-formulate Programs and Courses	← SAME AS TOP LINE →		

before the programs can be installed and then conducted. Certain logistic support is required in the conduct of the program as is administrative supervision and help to those who conduct them. Finally evaluation should result in reformulation (modification) of programs and the cycle begins again.

It is not intended to suggest that the functions occur in a set of discrete sequential steps. They do not -- there is much overlapping in time. However, it is a major point of this paper that a logical sequence of events does, or at least should, exist. The chart does not suggest any particular time necessary to accomplish a complete cycle. For some small programs the cycle might be quite short, for other large complex programs the cycle might take years. The realities of annual budget making suggest, however, that there ought to be some relationship between this cycle and the budget calendar.

Turning our attention to the column headed Responsibility we can see the location of the basic responsibility for the function. This means accountability for the success or failure of accomplishment of the function. A major problem in recent years has been that these responsibilities have not been clearly assigned. In the case of formulating curriculum and instruction programs the basic responsibility is presently with the program specialists. This is not to suggest that this large and important function can be accomplished for a given subject area by any single person. As pointed out in The Hierarchy of Curriculum and Instruction Documentation assistance and participation must be sought from many sources. These might include district staff members, teachers, academic scholars, members of the community, special institutions such as the Hawaii Curriculum Center and others. The point is, however, that regardless of how wide participation is, responsibility must be fixed at a single point. The program specialist becomes the person responsible

to see that the program is completely and properly formulated.

Most of the boxes on the chart are self-explanatory but a few deserve special comment.

For example consider assistance and participation in the adoption function. The newly appointed advisory councils might provide a useful sounding board for the Board of Education when it is considering the adoption of new programs.

The special training of teachers to conduct new programs or revisions of old programs has generally been neglected and has been a source of confusion. It should be obvious that no single program specialist can conduct the workshops, courses, and institutes necessary to implement a program. Too much of the program specialists' time has been taken up with this sort of activity in the past. It simply does not work. Neither can this responsibility be abdicated to the University or to district offices or to schools. The responsibility for the relevance, quality, and completeness of such special training must be lodged with the program specialist in order to assure compliance with the specifications of the program. The actual training might be conducted by the University, other colleges, the district staff, schools or others. The content and quality of training must be subject to the approval of the program specialist. The special programatic training of teachers is a large and complex effort. Specific procedures for initiating, approving, conducting, and monitoring the many separate training efforts required will have to be developed and agreed upon.

The idea of <u>installing</u> a program is perhaps new to our school system. It assumes that conscious and deliberate program formulation has taken place. Installation means that the district superintendent takes the plan and initiates its implementation in his district with whatever local modifications are necessary. The modifications, whatever they happen to be, ought to be documented.

He is responsible for bringing together whatever resources are necessary to accomplish the task. He must nurture the program until such time as it is proceeding in a self-sufficient manner in the schools.

The matter of logistic support for programs requires some comment. The adoption of programs implies the commitment of resources. The requirements for resources, whether funds, teachers, material, or others ought to be specified before programs are adopted. Once the program is adopted the commitment of resources ought to be automatic. In other words district superintendents and school principals should not be placed in the position of having to justify the resources necessary to install or conduct a program.

The supervision of teachers should remain a major function of the principal as it traditionally has. The academic department chairmen in secondary schools and the subject matter or grade level chairmen in the elementary schools, should be given an increasingly important role of assisting the principal with the supervisory function. This is especially important in large schools but should also be practiced in small schools.

The major task of the district staff becomes that of providing consultant help to teachers and principals in the installation and conduct of programs. Such consultant help might also be derived from specially talented teachers who are academic department heads within schools or perhaps within feeder complexes of schools. The size of district staffs suggests that more and more we must turn to teachers with released time to provide this sort of consultant help. It should be noted that district staff members are not responsible for the formulation of programs. That is a state responsibility. However, the district staff should expect to participate and assist in the formulation of programs as was mentioned above.

The evaluation of the operation of a program is primarily the responsibility of the person who was responsible for the formulation of that program. Naturally help would be required from the same parties that participated in the formulation of the program. In addition, technical assistance might be sought from the Office of Research, the University, or other institutions.

Finally the reformulation of the program as the result of evaluation would start the cycle over again. We might well refer back to the first paragraph of this paper which states that we must seek a dynamic state of equilibrium where change is constant but planned (as well as man can plan). Ideas for new programs, or the deletion or modification of existing programs might come from anywhere but these ideas ought to be treated consciously and completely by the system.

It is not intended to suggest that programs and courses would undergo constant and radical revision. Quite the opposite. Most reformulations would be in the nature of minor revisions. What is intended is to point out that any adopted change in a program imposes certain obligations on all parties who bear responsibilities in the cycle of functions. The change might be large or small, it might mean more funds, a different kind of teacher training, a different textbook, different administrative arrangements, or simply a change in a time schedule. The important thing is that the responsibilities must be accepted throughout the cycle.