Producing a viable graduate program in curriculum requires identification of the audience for the program and determining new areas for professional participation. The program must be flexible enough to meet the individual needs of its participants and must make them capable not only of coping with change but also of using various methodologies to plan and regulate change. A general curriculum component should deal with the principles, procedures, analysis, and organization of curriculum development and with curriculum theory. Important aspects of a curriculum program are components providing familiarity and competence in decision-making; systems analysis; the organization of educational institutions; communication of educational ideas, materials, and resources; educational psychology; and the dynamics of a community. Research experience, intern experience, a dissertation, and competence in a discipline area must also be included. These content dimensions for a graduate program in curriculum must be considered before decisions relating to types of learning experiences and environments can be made. (JH)
What Are the Components of a Good Graduate Program in Curriculum?

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If we are to have effective programs in general curriculum we need to determine for whom the program is designed. Once this is done, we can then analyze what these people do and judge whether their actions should be continued or altered. We also can, by focusing on who does what in the field of general curriculum, identify places where there is need for new types of professionals in curriculum. From such analysis, goals can be determined and objectives outlined, and we then can commence the selecting and organizing of certain contents, the selecting and organizing of certain experiences, and the planning and organizing of particular environments.

Of course, identifying intended audiences for graduate programs is not a simple matter of head counting. Today, we find that the number of professionals in general curriculum is expanding, thus programs in general curriculum need to be designed for the curriculum theorist, the curriculum developer, the curriculum administrator, the curriculum evaluator, the curriculum writer, and the curriculum professor who may be a special variation of one of the previous types. Other positions in the curriculum field are being

Speech presented at Professors of Curriculum meeting, Minneapolis, Minnesota, March, 1973. Working copy, not to be used or quoted without permission.
created presently. John Mann has suggested the need to create curriculum critics who would be able to give judgments as to the effectiveness levels of certain aspects of the curriculum process. The need for a curriculum systems trouble shooter is becoming apparent. The educational sociologist with a curriculum emphasis is needed as is the professional skilled in political understanding and dealings regarding power groups in the community and how to work with them and around them in program development.

Being precise in indicating the components of a graduate program is difficult because of the rapidity of change at the current time. But, if we are to have viable curriculum functioning in the schools now and in the future, we will have to have graduate programs that provide students the types of experiences requisite for creating new positions upon graduating.

Toffler in his FUTURE SHOCK stated that the prime objective for education "must be to increase the individual's 'cope-ability'--the speed and economy with which he can adapt to continual change," page 403. This is partly true, but I would think that at the graduate level, we would wish to strive to assist in the development of not only a person who could cope with change, but one who can analyze change and who can utilize various methodologies to plan and regulate change.

One criterion for a good program is the program's capability of meeting individual needs. The program needs some type of organizational structure and it requires content in some organization of scope, sequence, and integration. But the program needs to have
flexibility to allow participants to center on areas of need and interest. Education should be the designing of alternatives, of potential experiences in which students can gain the necessary understandings and competencies requisite for the roles they have identified in their goal analysis. One is hard pressed to define a large basic core for curriculum programs. Certainly there should be courses and experiences in the general curriculum realm relating to curriculum practice and theory, but the program also should provide opportunities, encounters, for individuals to gain sufficient awareness and some degree of expertise in related areas. Persons in general curriculum will have to communicate with a large cadre of support personnel. Curriculum specialists will have to be conversant with some of the following areas of knowledge: systems, administrative organization, communications, decision-making and planning theory, community dimensions, and the nature and function of research. Certainly, no individual will possess expertise in all of these areas, but he does need competence in at least two of them, and he certainly needs awareness of the others. A good curriculum leader is one who creates situations which facilitate others in the curricular organization. An effective curriculum person does not, should not, be involved in all decision-making or analyses. In a large system, such involvement would be impossible, but the man in charge of curriculum certainly needs to be able to converse with other sub-specialists in curriculum.
Components of a Program in Curriculum

If the previous is accepted as a valid description of some dimensions of the current scene and indicated needs, then several components become evident for inclusion in a curriculum program. **General Curriculum Component**

Any program in curriculum should have a central component dealing with general curriculum. This dimension of the program would be required, however; those persons entering the degree pattern with experiences similar to those discussed and engaged in during these courses or experiences could use aspects of their previous involvements to satisfy dimensions of this component. In this program element would be courses dealing with the principles and procedures of curriculum development, and the analysis of curriculum development in the schools, centering on ways to organize for curriculum development. Courses could be developed to cater to persons interested in higher education as well as the elementary and secondary schools.

In this component one could have simulated activities in which students could develop programs over a quarter or semester thus gaining practical experiences in decision-making and application of curricular principles. Such encounters would provide students opportunities for analyzing how persons function in groups as well as the types of persons required for effective curriculum development.
Curriculum theory also would comprise this dimension of the graduate program. Some maintain, such as Craig Wilson that curriculum theory is or should be primarily humanistic or philosophical rather than scientific. Regardless of one's view on this, the theoretical component needs to be included to assist educators in describing, explaining, and prescribing current curricular practice. Good theory, from a scientific base, should enable the generation of testable hypotheses relating to curriculum. This seems to have been lacking in the past. Much of the research that has passed as curriculum research has been concerned with the instructional realm. Curriculum is the designing of master plans concerning the coordination of the particular variables in an educational environment. Curriculum also is concerned with the analysis of how these master plans are developed, introduced, maintained, and altered in school systems.

Colleagues in general curriculum have stated that often times persons involved in curriculum are ahistorical. If this be so, and our incidence of re-inventing the wheel provides some supporting testimony, then we perhaps need within this component opportunities for the study of the history of curriculum.

Decision-Making Component

With the increasing complexity of the educational enterprise and its central component of the curriculum, all educators are required to become more precise in their decision-making and need to follow procedures for decision making based on decision theory. The times are too complex for us to rely on crude means of formulating decisions.
The area of decision-making theory and practice is broad and not everyone entering a graduate program of curriculum study needs detailed investigation of the total field. But all students should have a basic understanding of the nature of decision and the means for organizing for effective decision-making. Some may wish to get into the mathematical and theoretical models of decision-making. Others may wish to center their attention on ways to organize people for making meaningful decisions. Again, persons involved in the study of this component, need opportunities to program their experiences to meet their needs, interests, and goals. A student of curriculum needs opportunities to encounter some effective decision-making in his program.

**Systems Component**

A closely related component is the study of systems. Here the student can analyze and experience education as a system. Systems theory can be investigated to provide the student of curriculum with an understanding of how a system functions and how it can be altered or maintained. Investigation centering on the effects of innovations on an educational system can be analyzed here.

Procedures for functioning within systems is part of this aspect of the program. Students can gain experiences in using such techniques as the Delphi technique, Program Evaluation Review Technique (PERT), and Critical Path Method (CPM). Here the student can experience encounters where he can try these techniques in simulated environments as well as to utilize these procedures in actual school situations via an intern experience.
Today, in the educational dialogue, we are hearing the term "futuristics". This term has several definitions, one being the knowledge and techniques to assist the school in adjusting to future change, avoiding future shock if you will. It seems that the systems component in the program could incorporate a sub-dimension dealing with educational futures and how to plan for them or avoid them. Identifying futures as desirable and then mapping out strategies to increase the probabilities of achieving these futures seems, at least to me, a crucial skill for the curriculum worker of today and certainly of tomorrow.

Organizational Component

Curriculum workers, whether in the colleges or in the schools function within organizations both formal and informal. Presently, many persons operating in the schools only know of organizations to the extent that they can indicate the line and staff relationships. However, curriculum workers require comprehensive understanding of the nature and types of organizations and how individuals react and interact with organizations. Many curriculum programs depend upon how well the curriculum coordinator and/or his associates discern the nature of their organization and how persons within the organization perceive their roles and the roles of others. Also, to induce change within the school system, one must have competence relating to the dynamics of change. Here there can be overlap with knowledge of systems.

The sociology of the school can be a sub-dimension of this component. Also, group dynamics and interpersonal relations can
comprise some of the areas studied at this program juncture.

It should be stressed here that these components and others
not yet mentioned can be fused where such fusion would be meaningful.
Individuals, depending upon their goals, will experience several
of these components in varied emphases.

**Communications Component**

We live in an age of media explosion and no one can remain
unaffected by the media or the messages. Educators certainly need
awareness of the broad area of communications, and some educators
must possess depth of understanding regarding the field of communication,
communication theory, and how to design systems so that information
is communicated to all affected persons.

Related to this component is the sub-area of learning resources. In most schools this area is housed in the college of education, whereas communication is outside of education. However, a cross-coordination of these two areas seems possible.

When we consider the current use of learning resources in a majority of schools, we discover that education is largely in the last century. Certainly, we need components in our program that will enable educators to utilize wisely modern resources. If much of our concern is with educational environments, then certainly we need requisite knowledge for developing environments, some of them simulated, which possess the potential of involving students in their learning. We require more than a practitioner's knowledge of the types of hardware available for our use; we need to comprehend how to coordinate these materials, both hard- and soft-ware, so
that communication is effective between and among educators and students.

Educational Psychology Component

Education is concerned with the creation of situations having the potential to produce learning in students and in providing guidance to students so they take maximum advantage of provided educational situations. Certainly, persons involved in curriculum development require a thorough understanding of learning theory and human growth and development to assure the psychological soundness of programs.

Some persons engaged in the graduate curriculum program may wish to have an in-education minor in this area. As to which school of learning theory should be emphasized, I would say that the total field of psychological study should be included. Locking an individual into trying to interpret all learning from one vantage point most likely will serve to limit his ability to create meaningful educational environments. This area can be correlated with some of the other components such as decision-making and systems to determine how people function in systems and learn when involved in an educational system.

Community Component

Schools exist in communities and are affected by sub-communities in and distant from the local community. Also, the school itself is comprised of various professional communities. Persons involved in curriculum development at the local school level and even within the area of higher education must be cognizant of the various political communities that have the potential to facilitate or retard the curriculum person's
efforts at designing meaningful educational environments. It seems that many of the problems that curriculum persons have confronted could have been avoided if they had a "good reading" of the nature of their community and its receptiveness to particular aspects of the curriculum under development.

Education is part of the power structure in the community. Some members of the community organize to assist the school in advancing while other members may fight for control of the school to reduce the pace of change or to prevent the school from moving in a particular direction. Curriculum persons need to know how to identify these groups, and upon identification how to work with them or even around them. Curriculum development and implementation is largely political. The "Delphi" Technique, which centers on consensus can be considered in part to be a political process of lining up power groups and getting people to form blocks of opinion.

Today there is an increasing emphasis upon student and teacher rights. The legal rights and responsibilities of those involved in education should be part of the professional program of those studying curriculum. Surely, how one involves educators in curriculum processes and the demands placed on students for functioning within the curriculum have legal dimensions. Curriculum educators need awareness of these. The identification of authority needs to be done. Certainly, the legal responsibilities of the schools have changed somewhat and will continue to change requiring some educators to be experts in school law as it related to curriculum.
Many recommendations for curricular experiences allowing students to do part of their study in environments outside the school have legal overtones as to what is the responsibility of the school for guidance and protection of students while involved in such study. If students visit foreign countries as part of their planned educational experience, we need to know what are the legal responsibilities. If students are gaining the right to sue school for malpractice, then all educators need awareness of those dimensions of professional behavior for which they are held legally responsible. The person engaged in curriculum coordination needs to have encountered some study in this component.

The Research Component

Curriculum students at the graduate level, whether involved in Ed.D. or Ph.D. programs need in-depth experiences relating to research. The Ed.D. by tradition stresses the practical application of professional knowledge and the research is usually geared to studies less empirically research oriented. Of course, there is much variation among schools regarding the nature of this degree. Indeed, some in curriculum maintain that there really is no difference between the two degrees. However, if we assume there is, then this difference most likely will be evidenced in the research and intern experiences. Students of curriculum must have sufficient research in order to discern problems facing the curriculum area and to conceptualize procedures of gathering information necessary for our advancement of knowledge of curriculum.
In some cases, the research or the investigation may take on the dimensions of an historical study or a status study. In other cases, it may be an associational study focusing on the relationships among several curricular variables. In still other cases, the research may utilize the classical empirical research design.

We need numerous types of studies in curriculum, and students must be cognizant of the ways of conducting research and possess some expertise in research methodology. Some curriculum students may wish to major in this research component; however, many will not but they will need to be sufficiently versed in research in order to coordinate activities of educational researchers in their schools or at the universities and colleges. We in curriculum need to develop curriculum, but additionally we need to research ways in which we develop it, ways in which we implement and maintain it, and ways in which various persons, students included, react to it. Of course, students engaged in study in this component need a working knowledge of the computer.

The Intern Experience Component

Not all graduate student experiences can be obtained at the university. Opportunities need to be provided students of curriculum to apply their knowledge of curriculum to numerous situations. Experiences in the field are necessary to provide students with occasions to implement some of the strategies of curriculum development, implementation and maintenance. Basic insights into many of the previously mentioned components can be gained more effectively in field
experience than in the university seminar room.

Much of the information relating to the human dynamics of a school system can be gleaned from involvement in some phase of group process in the schools. Analysis of a real community can provide students of curriculum with opportunities to test their methods of observation to determine where the power exists in the community. Working with various governmental agencies as part of the educational experience can be valuable for some students of curriculum.

Some students of curriculum are going to be professors of curriculum at the university level and will need intern experiences in which they can teach or assist in teaching, planning, and coordinating some curriculum courses. Doctoral students of curriculum can team with senior professors in conducting graduate seminars in curriculum. Students aiming at becoming professors of curriculum also should have encounters in the field allowing the application of their ideas and the testing of the effectiveness of some of their ideas. Professors of curriculum, teaching at universities, are not isolated from the field. Many of them are involved in consulting in relation to program development or in diagnosing the effectiveness of some educational program. At the University of Washington, the Ph.D. degree designed for college and university teaching requires a teaching internship and recommends the student also take a field-oriented internship over a year's period. Such internships are or should be designed for the unique needs and goals of the individual and should be developed in cooperation with the schools.
In situations where a particular internship is not feasible because of the nature of the task, simulated activities might be designed over an extended period of time. The entire emphasis on futuristics can be considered in a simulated situation over a year's period in which students, in gaming exercises, can analyze data and formulate decisions relating to particular dimensions of curriculum.

A Discipline Component

Some students, in addition to becoming experts in general curriculum also may wish detailed competence in a discipline. This option should be possible. Certainly, some individuals aim at becoming coordinators of particular content areas which would require an emphasis in a discipline field. Coordinators of mathematics should have a content minor in mathematics, just as coordinators of science should be competent in science. Being proficient in a field as well as able to contribute to an area of professional knowledge should improve the quality of curriculum programs as well as increase the respect of the community for educators with these roles.

Dissertation Component

All programs need to provide the opportunity for the student of curriculum to engage in a detailed study, the dissertation. In some schools the dissertation is narrowly conceived as solely empirical research. In other schools, an attempt is made to be creative as to the types of studies that curriculum students can
conduct. The research component should enable the student of curriculum to delve into research that will interest him over a fairly long period of time; it should not be viewed as a hurdle to pass before attending to other concerns. Much research conducted by doctoral students has been discounted because of faulty conception, weak design, or because of insignificant value to the field.

Doubtless, we need to ascertain that the dissertation proposed is feasible and worthwhile to the field. We perhaps also can consider involving doctoral students in various aspects of larger research projects so that the depth needed at certain times can be achieved. Often times, the research conducted by one student cannot analyze sufficient numbers of persons or inquire as to the impact of programs over a sufficiently long period of time, because of the limitations of self. However, by making the dissertation a related element of an overall larger study, findings significant to a larger problem of investigation might be achieved.

Conclusion

My treatment of the components has largely centered on the content dimension of curriculum with some attention to types of experiences and educational environments. Another paper could be written to elaborate on the specifics of the encounters and the parameters of the environments suggested. However, decisions relating to experiences and environments can come only after one has determined the dimensions of the content. And we must constantly
query ourselves as to the reason for the inclusion of the content we suggest.

Certainly, this paper has not exhausted even the discussion of the content components, but this was not the intent. Hopefully, the paper has caused you to react, to consider your own programs and to compare my suggestions with your current thinking.

A good curriculum program should provide students with those understandings and competencies requisite for functioning on the cutting edge of the present and on the forefront of educational futures.

We, the professors of curriculum, should ascertain that the processes we employ and the programs we develop are using the procedures and the current knowledge of the field of which we claim to have expertise. One might contend that since we are the experts in the field of curriculum that our programs should be the exemplars to our colleagues at the universities, colleges, and in the schools. Hopefully, my discussion has provided us with points for consideration. We have our challenge!