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INTERDEPARTMENTAL SHARING OF RESOURCES IN A SMALL UNIVERSITY: A CURRICULUM PLANNING CASE STUDY

The University of North Carolina at Greensboro ED.D. 1983

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INTERDEPARTMENTAL SHARING OF RESOURCES IN A SMALL UNIVERSITY: A CURRICULUM PLANNING CASE STUDY

by

Nellie Brown Boyd

A Dissertation submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
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Approved by

Dissertation Adviser

APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of the Graduate School at the University of North Carolina at Greensboro.

Dissertation Adviser _____

Committee Members _____

_____

_____

June 13, 1983
Date of Acceptance by Committee

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BOYD, NELLIE BROWN. Interdepartmental Sharing of Resources In A Small University: A Curriculum Planning Case Study. (1983)
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The major purposes of this study were (1) to examine the extent of formal and informal interdepartmental sharing of resources in a small university setting, and (2) to examine the extent to which academic personnel perceive a higher degree of efficacy while engaged in formal and informal interdepartmental sharing of resources in a small university setting.

The significance of this study is based on the fact that there are limited resources available and interdepartmental sharing is a logical solution to the problem of limited resources in the small university. Specifically, the researcher attempted to establish that (1) interdepartmental resource sharing occurs, and (2) a relationship between interdepartmental resource sharing and teacher efficacy does exist.

The research procedure used in this study was the case study method. Data were collected primarily through observations and interviews with the subjects. The subjects included one dean, one chairperson, and one faculty person each from three schools within the university. The subjects' extent of resource sharing and sense of teacher efficacy was examined individually, from each school, and from the three academic ranks.

Some selected conclusions of this study are that (1) formalistic inquiries into the theories of curriculum planning, resource sharing, and teacher efficacy should be coupled with inquiry into case studies of actual implementation in the school setting, (2) interdepartmental resource sharing does exist in the small university setting,

(3) interdepartmental sharing of human and material resources is a viable and workable solution to limited resources, and (4) there is a relationship between interdepartmental resource sharing and an educator's sense of teacher efficacy. This study suggests additional research related to resource sharing and teacher efficacy in the small university.

ACKNOWLEDGMENTS

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I wish also to express sincere appreciation to my husband, Joseph, and my three children for their continuous encouragement, patience, and understanding.

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CHAPTER I

INTRODUCTION

Until the last decade, American society held the belief that with progress came abundance. And, Americans did have available an abundance of resources, so much so that they began to believe the myth that there existed unlimited resources to equal their unlimited desires. However, as national economic conditions became less prosperous and as environmentalists became aware that America was using its diminishing natural resources at an alarming rate, the myth of unlimited resources was no longer tenable.

One segment of society that not only had to reject the myth of unlimited resources but now had to cope with the reality of inadequate resources was educators. Not only were they not able to get many of the extra human and material resources that they had become accustomed to using, but they barely got many of the essential resources needed to perform daily basic functions.

As a result of having to face the reality that they oftentimes must work without access to adequate resources, educators have chosen several alternatives for coping with this problem. Some guard carefully the few resources they have and are unwilling to share them because they do not know when their resources will be replenished. Other educators choose to establish networks as the desirable alternative for coping with the reality of inadequate resources. These networks would create an awareness of new opportunities to acquire resources. "The idea of

networking (network creating) sees the person as having internal authority to informally stretch in many and diverse directions that are not predetermined. . . As a result, the network creator increases his(her) sense of efficacy."[1]

The groups of educators within high education who have chosen the first two alternatives have done so for several reasons, two of which will be mentioned below. First, several of them view their respective organizational units as separate and independent entities. This view is based on prior academic experiences and on the history of how their respective academic institutions have functioned. For example, S. J. Sackett[2] stated that many professors in small colleges attempt to emulate the course offerings of the large universities. The nature of these course offerings generally places strong emphasis on separate departments which give the illusion of being self-sufficient and independent of all other departments of that university. Second, academic departments are often regarded as separate entities by not only the faculty within it but by other persons such as the school's budget directors and directors of academic and fiscal affairs. These persons allocate limited resources to academic departments to be operated as separate entities. It is understandable that under these conditions the educators within an academic department may be hesitant to share resources that have been specifically allocated solely for its use.

Although the reasons some educators choose the first alternative in an attempt to cope with lack of access to adequate resources is understandable, that alternative is not desirable because (1) it encourages

needless duplication of resources that could be effectively shared by more than one group of persons and (2) educators who choose it do not realize the interdependence of all departments of a school. These educators inaccurately project the idea that students should learn in isolated closed systems in which there are strong boundaries separating the traditional content areas.

The most positive option presented was the second alternative which encourages the practice of establishing networks. First, as stated above, educators, as network creators, increase their sense of efficacy. With this sense of efficacy, they will not feel victimized. Even more important, these educators will recognize how valuable they are as human resources.

One opportunity that educators have for obtaining use of resources not normally available to them is through the interdepartmental sharing of resources. This opportunity (based upon the idea of networking) is especially important in the small university.[3] Studies have indicated that teachers and curriculum planners are primarily concerned with content (subject matter) to be taught and how students learn.[4] They have also shown that environment and available resources affect curriculum plans for educational programs. Yet, funds and personnel for program development are limited.

Interdepartmental sharing of resources could be vital to promoting program development in light of the limited resources available. This premise is based upon the belief that humans should be open to their environment and that the environment should be open to individuals.

Individuals are by nature moving, thrusting forward, striving, and aspiring. This thrust forward does not come forth in isolation, but exists in an open system of transaction. The open system enhances chances for individuals to experience values such as developing sensitivity to and respect for others in our environment and desiring establishment of a sense for the dignity of community with those in our environment.

When talking about situations existing in an open system of transaction such as that prompted by resource sharing, one is talking about ethical concepts such as (1) response-ability (integrity of one's personal and spontaneous responsiveness); and (2) new speech (metaphors, non-conditioned speech is seen as a vehicle for a creative unfolding of knowledge of this world).[5] The interaction of various disciplines of knowledge initiated by sharing human and material resources are vehicles for novelty and newness in response-ability, thereby creating and re-creating concepts of the world. The most conducive learning activities in the curriculum are those where free-flowing multidirectional exchanges of ideas are permitted.

If universities, especially small universities who function with very limited resources, want to create an environment conducive to learning and want to make accessible as many resources as possible for students, then their curriculum planners should make interdepartmental sharing of resources an integral part of the small university setting.

Purpose of Study

The focus of this study is the interdependence of the academic departments of a small university. The academic departments affect and

are affected by the university. Problems and possible solutions such as coping with limited resources are influenced by recognizing this strong interdependence. In recognizing this interdependence of academic departments, curriculum planners can more effectively utilize the diminishing resources of the small university.

The purposes of this study are twofold:

(1) To examine the extent of formal and informal interdepartmental sharing of resources in a small university setting.

(2) To examine the extent to which academic personnel perceive a higher degree of efficacy while engaged in formal and informal interdepartmental sharing of resources in a small university setting.

This study is based on the assumption that there are limited resources available. Interdepartmental sharing as a solution to the problem of limited resources often results in a higher degree of teacher efficacy. This researcher assumes that some teachers view external factors such as inadequate resources as obstacles which threaten to prevent them from achieving certain outcomes in their classes. Teachers who seek and exchange human and material resources with colleagues will overcome the obstacle of inadequate resources and hence feel a higher degree of efficacy about their teaching in the classroom than those teachers who have not established a network for obtaining needed resources.

The academic personnel's sense of a greater degree of efficacy will be reflected in the extent that they feel a sense of internal control in the use of eight dimensions of curriculum planning.[6] These eight dimensions are as follows:

1. Goals and their priorities. Goals are general statements of intent and aspirations of what should occur in a setting. They describe the purposes for a course or school program. For example:

A. The goal of this course is to help students understand the causes of civil disobedience.

B. The goal of the course is to develop skills in the repairing of small electrical appliances.

C. Patriot School aims to encourage students to express themselves in constructive and meaningful ways as members of the society in which they live.

"Goals are intended to provide a greater focus on anticipated outcomes and to provide curriculum planners with the basis for the selection of curriculum content."[7]

Educational values come into play on occasions when all of the goals cannot be met at the same time. The educator must choose to reach those goals deemed most accessible and most important at that time. There are often tradeoffs in factors such as time, expected outcome, human and fiscal resources, and community support. For example, Karen M. is setting up a new curriculum program for foreign languages. To facilitate students reaching the highest level of knowledge in reading, listening, speaking, and writing of foreign languages, the new program should be set up as Karen has proposed. Karen's chairperson believes that theoretically the new program will work, but she disagrees with Karen about (1) the need to remodel and enlarge the existing language laboratory (she prefers to use the department's limited resources for other needs), and

(2) she believes that the students' use of language laboratory facilities should be closely monitored and used only during certain hours.

Karen knows from her research on foreign language curriculums and from her familiarity with the students that unless the language laboratory is remodeled and enlarged and unless the students can feel free to use the facility at their convenience as often as needed, the improvement of the new curriculum over the current one may not be significant.

Karen has to decide on one of several alternatives. She could (1) implement all other phases of the new program except those two involving the language laboratory, (2) modify the other phases of the new curriculum to absorb the loss of the needed laboratory, or (3) attempt to locate the needed fiscal and human resources to remodel and enlarge the laboratory and hope that she and her departmental chairperson can at least compromise on the use of it, or (4) abandon the idea since vital portions of the new curriculum program have been rejected by the chairperson. Karen's decision about the alternatives will be based upon which one will most closely allow her to reach her original goal, upon her values, and upon her degree of commitment to carrying that program. Negotiating the balance between attaining the desirable and the possible is one of the arts of curriculum planning.

2. Content of Curriculum. Content of curriculum is the specific content selected by the curriculum planner. The curriculum planner must decide from a variety of concepts and generalizations those that are most beneficial to the students. Criteria for choosing content of the curriculum include (a) whether the content is consistent with the stated

goals of the curriculum and (b) whether the content is meaningful to the particular students. For example, the kind of content that is meaningful to a student from a large urban area, in several instances, differs significantly from the kind of content that is meaningful to students from a rural area. Ideally, the curriculum planner will identify content (a) within the subject area and (b) within the students' experience outside the subject area that will help them grasp the ideas of both the subject area and of the goals of the school.

3. Types of Learning Opportunities. Learning opportunities are those educational events planned and curriculum materials planned to help educators and students grasp the concepts and generalizations specified in the content of the curriculum. These types of events and materials must be planned and prepared in a form that is consistent with the educator's stated goals and philosophy of education. For example, educators who emphasize the importance of process in learning will generally provide learning opportunities that steer students to active inquiry. These educators will provide such events and materials because they want students to inquire, to think, to act, and in this process to learn. "The advocate, for example, of learning by discovery will frequently be interested in helping children 'learn to think like scientists'. For such people the curriculum should be built around problems. The curriculum designer is to create activities that help children either formulate problems or try to resolve the problems within the materials."[8]

In practice the relationship between learning activities provided and goals is neither linear nor unidirectional.[9] "What teachers want and

need are ideas that have practical payoffs; ideas that for the most part lead to action. Projects that appear interesting, activities that seem heuristic, events that will be attractive and engaging to students are valued by teachers. Once students are fully engaged in such activities, one can guide them so that various goals and aims are achieved."[10]

4. Organization of Learning Opportunities. Learning opportunities are usually organized based upon either the staircase model or the spiderweb model. The staircase model is a concept that students' learning activities should be sequenced. (See Figure 1) Current curriculum activities should build on those activities that preceded them and in turn prepare students for future activities. Proponents of this model[11] believe that curriculum planners should plan and organize educational events sequentially according to these four steps:

1. Select objectives
2. Select activities
3. Organize activities
4. Evaluate.

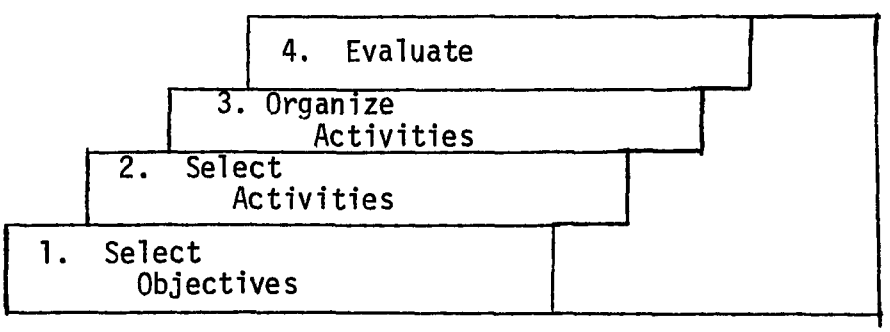

Figure 1. The Staircase Model

In the spiderweb model, the teacher uses heuristic projects, materials, and activities whose use will lead to diverse outcomes among her group of students. A teacher or curriculum designer using this model uses personalized and heuristic projects and activities which invite engagement rather than control. "With engaging projects or activities students will create ideas and develop skills that they want to pursue. The task of the teacher is then to facilitate the interests and goals that students develop as a result of such engagement. As children bring with them different experimental backgrounds, it is reasonable to expect that the kind of meaning they make will also differ. This is seen as a virtue rather than a liability, for it is in the cultivation of those interests that truly personalized education resides."[12] The educator holding a student-centered philosophy will advocate the spiderweb model as a framework from which to organize learning opportunities. (See Figure 2)

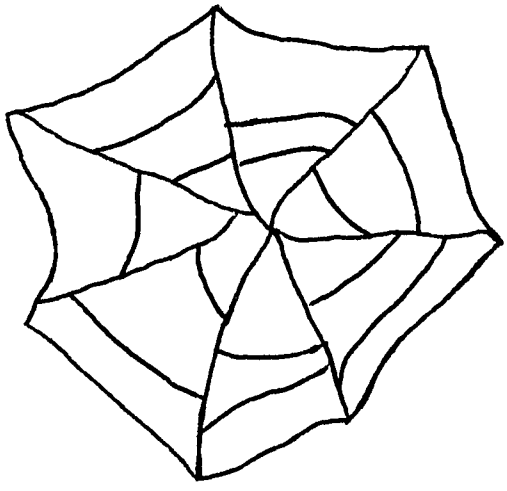

Figure 2. The Spiderweb Model

5. Organization of Content Areas. Organization of content areas are the ways in which the content areas of a curriculum are defined or classified. For example, content areas may be organized within the boundaries of the traditional subject matter fields such as history, English, art, and science. Content areas may also be organized in a manner which cuts across the traditional subject matter fields.[13] In such cases courses taught could be popular culture, problems of ecological studies, and the like.

6. Modes of Presentation . The mode of presentation in the university setting is primarily written or verbal language. The teacher either lectures or requires students to read textbooks to get the information and ideas presented to them. Modalities of presentation should not be limited to talking and reading. Other modes of presentation such as audio-visuals, role-playing, actual engagement in the activity and the like should also be used.

7. Modes of Response . The most used modes of response expected from students are written and verbal. Many curriculum planners and teachers believe that students do not actually understand the course content unless they can demonstrate it in either verbal or written terms. However, many researchers deny this belief.[14] They recognize (a) that understanding is secured and experienced in different ways and (b) that students should be allowed alternative ways to express what they know. It is possible for students to experience learning activities in one mode and to express what they have learned from those experiences in another. This point holds true even though certain fields of study have

indigenous modes of expression. For example, students in composition classes write prose; in history classes they write prose; in music they sing or play instruments; and the like.

> To the extent to which we would like students to express themselves within the mode that is indigenous to the discipline, that mode should dominate. But ideas secured from a discipline need not necessarily be limited to the mode indigenous to it. (For example,) a study of history can lead to ideas that are best expressed by some students within the context of poetry rather than proses or within film on music. Ideas dealing with historical phenomena can be expressed in modes that are nonverbal. In addition, ideas that are not historical, per se, can be stimulated by the study of history, and, of course, these too can be expressed in modes that do not make use of what is indigenous to historical scholarship.[15]

8. Types of Evaluation Procedures. These procedures occur throughout the curriculum planning and decision making process. Evaluation procedures are used to identify and assess what students have learned and experienced. Decisions about content, activities, aims, modes of presentation or modes of response require the curriculum planner or teacher to consider the options and to evaluate the effectiveness of the alternatives. Decision making about the selection of some alternatives over other options requires evaluation with respect to some set of values. Some types of evaluation procedures are written examinations and observations by the educator. The curriculum decision maker's evaluation style can be viewed in frameworks such as that of Vroom and Yetton.[16] (See Appendix B)

Definition of Terms

Many individuals have different interpretations of certain terms used in this study due to their prior usage of those terms. Because of the differing interpretations, definitions of certain key terms used throughout this study should be clarified.

According to Israel Scheffler,[17] definitions, when presented as general communications in a practical context, can be categorized into three different kinds:

1. Stipulative - reflects a new use of a term rather than its prior accepted usage or it can interpret a term that has had no prior usage.

2. Descriptive - seeks to explain or describe the meaning of a term in accord with its prior usage.

3. Programmatic - an expression of a practical program that carries with it a sense of what ought to be adopted.

Given the different interpretations and kinds of definitions, the following stipulative and programmatic definitions of terms that appear throughout this paper are listed below.

Curriculum. "What persons experience in a setting. This includes all of the interactions among persons as well as the interactions between persons and their environment."[18] It also includes courses of study as an influence on persons as they create learning settings. These courses of study differ according to the emphasis given to aims and goals; selection and organization of content and activities; modes of presentation and response; and evaluation procedures. Vast differences in the curriculum occur depending upon whether the aim is to train students or to help them become independent critical thinkers. Theories of learning influence decisions about the sequence and types of learning as well as the modalities of presentation and response. In addition to the above mentioned factors, the curriculum is also influenced by tradition, availability of human and material resources, and social pressures.

Curriculum Planning - Includes prior as well as on-the-spot organization of ideas for purposes of creating what persons, including oneself, should experience in a particular setting.[19] This organization of ideas is based upon theory, research, past and present professional practice, and is formulated with and for others in that setting.

Network - A collection of acquaintances that one can count on for some kind of help. It may include persons inside the organization as well as outside, as long as the relationship between each network member has two common characteristics: informality and purpose. Information, services, support, and access to other networks are exchanged in network relationships.[20] For example, Janet H., in a telephone conversation with Alan W. volunteers the use of her office equipment to help him reproduce copies of some materials that he needs (services). An hour later Alice C., Janet's colleague, visits her office. During the course of conversation, Alice mentions to Janet some facts that are very important to the success of her current project (information). Alice also states that she will endorse Janet's efforts and gives her the name of a source who could help her with her project (support and access to other networks).

Setting - "...any instance when two or more people come together in new and substained relationships to attain certain goals..."[21]

Teaching - All activities and/or actions intentionally or unintentionally done by teachers which promote learning.

Learning - "...What occurs when a person makes sense out of what he encounters or experiences in interacting with self, others, and the envi-

ronment. In some cases there is an apparent change in the person's behavior due to participation in the learning process, whereas in other instances a seed is simply planted that may lead to change at a later time."[22] Learning can best be encouraged by basing instruction on individual learning styles and needs.

Human resources - Any available personnel or ideas that can be utilized by persons or organizations in a time of need. Personnel includes those who perform bureaucratic functions as well as those who perform academic functions, salaried subordinates, colleagues and superiors.

Material resources - Any available facilities and equipment or other services that can be utilized by persons or organizations in a time of need. Material resources include buildings, designated space within buildings, hardware and software equipment, and the like.

Efficacy - A sense of internal control, of being able to produce certain intended outcomes and influence the environment or setting.

Cooperation - Willingness of persons or groups to share their resources with other persons or groups.

Methodology

The primary purposes of this study are (1) to examine the extent of planned utilization of interdepartmental shared resources within different dimensions of curriculum planning and (2) to examine the relationship between the interdepartmental sharing of resources and the enhancement of varied use of eight dimensions of curriculum planning that should be considered when attempting to design educational programs. These purposes will be approached by means of the case study method, a nonexperimental technique. McAshon stated:

> Procedures developed for use in case study investigations are concerned with the analysis and treatment of individual persons and things and groups which may be considered as one unit. A case study develops when it is necessary to obtain data on any problem concerned with a partial or entire life process of an individual or group unit. A case study may result from: (1) a lack of information about a matter, (2) conflicting information about something deemed to be important, or (3) misinformation about some individual or group; or it may occur (4) just as an attempt to gain new insights into factors that result in a given behavior or complex situation.[23]

According to Chinoy, "the value of the case study method, ... lies in its effort to discover all the variables relevant to a given case. It tries to convey an understanding of a class or type of phenomena by the full description and detailed analysis of one or a series of cases belonging to that class."[24]

The subjects selected for this study are one school dean, one departmental chairperson, and one faculty member each from the Schools of Business, Arts and Sciences, and Education. All subjects have been employed by the University for a period of at least four years and are regarded as competent by their colleagues. The subjects are also representative of curriculum planners at different academic ranks within each School.

The data in this study were collected primarily through observation. In the initial phase of data collection, three weeks were spent each in the Schools of Business, Arts and Sciences, and Education observing activities which involve curriculum planning and the use of various human and nonhuman resources within and outside of the classroom. Approximately five hours per day were spent observing each of the subjects.

The second phase involved collection and examination of additional supplemental data such as departmental goals, budget proposals, class syllabuses, and routine memos from each of the academic departments observed and informal interviews with the faculty members and administrators who were selected as subjects for this study. This second phase of data collection provided additional perspectives to the information that the investigator would have collected earlier as a participant observer.

The field notes collected were intended to provide an account of the actual classroom teaching activities and of the interactions of the subjects with students, colleagues, and other persons in the university setting. The supplemental data were intended to provide additional information and insight into the extent that resources are considered during curriculum planning by the subjects.

Anonymity was assured for all persons and the schools that are involved in this study. This was done in an effort to obtain candid and open responses of the subjects.

The information gathered during the two phases of data collection was analyzed in the following manner. At the end of each observation day, the field notes were read as a review of that day's observed activities. Photostatic copies of supplementary data were also reviewed at the end of each day. If copies of the supplementary data could not be obtained, notes taken from the original source of data were reviewed. Evidence of the frequency and timing of the conscious use of available resources was sought when any of the collected data was reviewed.

In this chapter, the investigator has stated that recognition of the interdependence of academic departments of the small university was the focus of this study. In recognizing this interdependence, curriculum planners can more effectively utilize the diminishing resources of the small university. Specifically, the case study technique was used to examine (1) the extent of planned utilization of interdepartmental shared resources in a small university setting within the different dimensions of curriculum planning and (2) the relationship between the interdepartmental sharing of resources and the enhancement of varied use of eight dimensions of curriculum planning to be considered when attempting to design educational programs.

Chapter II contains a review of the literature pertaining to the study. Chapter III explains the methodology of the study. Chapter IV includes a case study centering on a small university which utilizes the curriculum approach identified in this study. Finally, Chapter V contains (1) a discussion of the principles and assumptions involved in the use of shared resources and the curricular implications of these principles and (2) a summary of the recommendations and implications drawn from this study.

CHAPTER II

REVIEW OF THE LITERATURE

The purposes of this review of the literature are to examine curriculum planning models that influence curriculum planners' frames of reference, needed considerations for any curriculum planning model, teacher efficacy, and interdepartmental sharing of resources. The review of the curriculum models will provide a basis for assessing assumptions about curriculum planning that are presented by the researcher in this study. The review of literature related to needed considerations for any planning model will explore certain realities that curriculum planners must consider before attempting to create a new model or to adapt an existing one for their setting. After reviewing literature on teacher efficacy and on interdepartmental sharing of resources, the relationship between these two variables will be examined.

Curriculum Thought From Turn of the Century to Present

The year 1918 is cited by curriculum planners as the date when the curriculum field emerged. It was in 1918 that Franklin Bobbitt's influential work, The Curriculum,[25] was published. In The Curriculum, Bobbitt advocated the scientific method in curriculum-making. He stated that "the scientific task preceding all others is the determination of the curriculum. For this we need a scientific technique." The central theory behind Bobbitt's statement was that human life, regardless of one's background, consists of the performance of specific activities

and that "education that prepares for life is one that prepares definitely and adequately for these specific activities."

Bobbitt defined curriculum as "that series of things which children and youth must do and experience by way of developing abilities to do the things well that make up the affairs of adult life; and to be in all respects what adults should be." Determination of an effective curriculum required the curriculum planner to go out into the community to determine the "abilities, attitudes, habits, appreciations, and forms of knowledge" that persons need.[26] These entities would then become the numerous but specific objectives of the curriculum.

The specific objectives of the curriculum would be attained through (1) the education one gets from participation in community life (undirected training) and (2) directed training through formal education. The function of formal education would be to complete and enhance education that had not been sufficiently attained by students through participation in community life.

Bobbitt's ideas as expressed in The Curriculum were influenced by Fredrick W. Taylor's form of idealized bureaucracy known as scientific management.[27] Basic assumptions of Taylor's scientific management were that (1) productivity is central and the individual is simply an element in the production system and (2) people are motivated by economic gain and would sacrifice a great degree of job satisfaction and physical ease in order to achieve economic gain. Taylor also believed that each worker must be studied carefully to assess individual abilities and limitations in an effort to develop that

worker to his or her peak efficiency and achievements. Thus, for Taylor the key to efficiency is godd management.

Since Bobbitt's and other educators'presentations on curriculum at the turn of the century, literature on curriculum planning has been dominated by control and prescriptive dicta. The thoughts manifested in such dicta were most universally accepted by curriculum planners in America first in a model proposed by Ralph W. Tyler in Basic Principles of Curriculum and Instruction. The Tyler rationale, as expressed in his book, revolves around four essential questions that he feels curriculum planners need to answer if effective curriculum development is to proceed:

1) What educational purposes should the school seek to attain?

2) What educational experiences can be provided that are likely to attain these purposes?

3) How can these educational experiences be effectively organized?

4) How can we determine whether these purposes are being attained?[28]

Using the above four questions as the foundation for developing a curriculum, the curriculum planner follows a four-step sequential process to develop a curriculum: statement of objectives, selection of experiences, organization of experiences, and evaluations.

For Tyler, educational objectives become the criteria for the selection and organization of experiences and types of evaluation. The selection of educational objectives are obtained from studies of the learners, studies of contemporary life outside the school setting, suggestions about objectives from subject specialists, and use of the educational

and social philosophy to which the school is committed. He felt "a study of the learners would seek to identify needed changes in behavior patterns of the students which the educational institution should seek to produce."[29] The needed changes would be identified as the gap between the present status of the students and the acceptable norms as accepted by the teacher and the school.[30] One criticism of Tyler's attempt to assess students' needs is that the concept of need turns out to be of no help insofar as avoiding the interpreter's central and sometimes arbitrary value decisions as the basis for the selection of educational objectives.[31] Dearden supported the above criticism with the following statement:

> The concept of "need is an attractive one in education because it seems to offer an escape from arguments about value by means of a straight-forward appeal to the facts empirically determined by the expert. But ... it is false to suppose that judgements of value can be thus escaped. Such judgements without any awareness that assumptions are being made, but they are not escaped.[32]

The second source for curricular objectives is studies of students contemporary life outside of the school. The two arguments for analyzing contemporary life are (1) "that because contemporary life is so complex and because life is continually changing, it is very necessary to focus educational efforts upon the critical aspects of this complex life and upon those aspects that are of importance today, so that we do not waste the time of students in learning things that were important fifty years ago but no longer have significance, at the same time that we are neglecting areas of life that are now important and for which the schools provide no preparation";[33] and (2) that transfer of formal training to meet the

challenge of life situations is more likely when life situations and learning situations are obviously alike and when students are given practice in seeking illustrations in their lives outside of the school for application of things learned in school.

The third source for curricular objectives is subject matter specialists. The subject matter specialists suggest objectives centered around knowledge, skills, modes of thinking, emotional reactions, interests, and how a subject can make particular contributions to other large educational functions that may not generally be thought of as unique functions of that subject.

The fourth and final major source for selecting curricular objectives is the use of the philosophy of the school. The combined lists of curricular objectives gathered from studies of students, contemporary life outside the school, and suggestions from subject matter specialists will be screened by the social and educational philosophy to which the school is committed. Those objectives that are contradictory to the philosophy of the school will be eliminated while those consistent to the philosophy of the school will be retained and identified as important objectives.

Once the curricular objectives have been established learning experiences likely to be useful in attaining those objectives must be selected. Tyler defined learning experience as "the interaction between the learner and the external conditions in the environment to which he can react." There are four kinds of learning experiences. Some develop thinking skills, while others are helpful either in acquiring

information, in developing social attitudes, or in developing interests. The general principles for selecting learning experiences are:

1. A student must have experiences that provide opportunity to practice the behavior implied by the objective.
2. A student should receive satisfaction from behavior implied by the objective.
3. Reactions desired in the experiences should be within the range of possibility for the students involved.
4. Several experiences can be used to attain the same objectives.
5. The same experiences will usually bring about several outcomes.

There are some contradictions in Tyler's method for selecting learning experiences. He stated that the activities are to be selected by the teacher or curriculum planner. Yet, learning experiences are defined as the interactions between a student and his or her environment.[34]

The next step in the Tyler model is the organization of learning experiences into units, courses, and programs. The criteria for effective organization are continuity, sequence, and integration. The principles of organization are chronological, increased breadth of application, description followed by analysis, specific examples followed by broader principles to explain the examples, and specific parts used to build larger wholes in an attempt to build an increasingly unified world picture.

The structure for organizing the learning experiences include (a) specific subjects such as history, English, philosophy and the like, (b) broad fields such as the humanities and life sciences, (c) a core curriculum which is combined with either broad fields or with specific subjects and (d) a unit which includes the total program.

The last step in Tyler's model is evaluation. Evaluation is "a process for finding out how far the learning experiences as developed and organized are actually producing the desired results and the process of evaluation will involve identifying the strengths and weaknesses of the plans."[35] Evaluation as used by Tyler (as the standard by which a curricular program is assessed) has a weakness in that it ignores any latent unplanned activities or learning that may have not been stated in the objectives by the teacher or curriculum planner.

The Tyler model has stood as the capstone of models of curriculum development for planners who envision curriculum as a "complex machinery for transforming the crude raw material that children bring with them to school into a finished and useful product."[36] Since Tyler proposed his model in 1950, it has been elaborated by Hilda Taba,[37] William Popham,[38] and Robert Mager.[39]

The Tyler model has been widely accepted by most curricularists and hailed by many of them as the way of looking at curriculum development as opposed to viewing it as a way of looking at curriculum development. Yet, there are some curricularists, Kliebard, Cremin, and Eisner,[40] who are critical of some of the weaknesses found in the widely accepted means-ends models proposed by Tyler and others. Still, these critics of existing conceptions and practices of curriculum have not proposed any alternative curriculum models.

Alternatives to sequential models have been proposed by curricularists such as Huebner and Macdonald.

Huebner proposes regarding the curriculum through five different modalities (value systems). The value systems are designated as techni-

cal, political, scientific, aesthetic and ethical. The particular value system with which the curriculum specialists regard curriculum is reflected in their curricular language.

The technical value system espouses a means-end rationality that is based upon industrial models. The end products and the means are stated as accurately as possible in behavioristic terms. The major concern of curricular specialists is to efficiently orchestrate material and humans to produce the desired ends. The desired ends will contribute to the preservation, maintenance, and improvement of society as it presently exists. "Technical valuing and economic rationality are necessary in curricular thought, for problems of scarcity and of institutional purpose do exist. However this is but one value system among five, and to reduce all curricular thought to this one is to weaken the educator's power and to pull him out of the mysteriously complex phenomena of human life."[41]

The curriculum specialists are primarily concerned with political valuing and value educational activity which brings support or respect for them. They attempt to maximize their power and respect in order to reach as many educational goals as possible. Huebner maintained that all educational activity is valued politically and that political valuing is not immoral unless power and prestige are sought as ends rather than as means for responsible and creative influence.

Scientific valuing is centered around maximizing the attainment of new information with an empirical basis for the curricularist. The scientific value system, like the other value systems, is necessary but

curricularists should not restrict their thoughts and activities to this one system.

Aesthetic valuing means acknowledging the symbolic and aesthetic meanings of educational activity. Huebner has identified three dimensions of aesthetic valuing. The first is the element of psychical distance. In psychical distance, the aesthetic object (educational activity) is removed from the world of use. It is spontaneity captured and beauty in itself without regard for its use in the world.

Wholeness and design is the second dimension of the aesthetic value system. The totality and unity of an art object (educational activity) can be valued in terms of its sense of balance, wholeness, integrity and peace or contentment.

Symbolic meaning is the third dimension of aesthetic value. Educational activity can be symbolic of the meanings felt and lived by educators.

The fifth valuing system is ethical valuing. Educational activity is viewed as an encounter between two human beings. Metaphysical and sometimes religious language is the primary vehicle for communication between persons involved in the educational activity. The student is viewed as a fellow human being, not as an object to be controlled or manipulated. The encounter between educator and student is "not used to produce change, to enhance prestige, to identify new knowledge, or to be symbolic of something else. The encounter is the essence of life. In it life is revealed and lived."[42]

Huebner believes that all five valuing systems could be brought to bear in educational activity. The quality of teaching would probably

improve if attempts were not made to maximize only the technical, political and sometimes scientific values while withholding sufficient attention to the aesthetic and ethical values.

Macdonald[43] echoed Huebner's criticisms of curricularists' emphasis on the technical and sequential aspects of the curriculum in his model of schooling. His model is comprised of sociocultural, psychological, and transactional dimensions. Macdonald proposed that in addition to answering the four questions identified by Tyler as basic for making decisions about curriculum, curriculum specialists must ask additional questions such as:

1. What are our value commitments?
2. What is our view of the nature of man?
3. What are the socio-cultural forces now operating in our society that we would choose to maximize or perpetuate?
4. What are our conceptions of learning?
5. What is the nature of human experience in general, and how is it related to learning?

Macdonald contended that education is a moral enterprise. The questions and decisions posed by curriculum specialists are basically "should" questions rather than descriptive "is" questions and decisions. Thus models of schooling should include a sociocultural dimension.

Macdonald's sociocultural dimension is based upon the concepts of liberation, pluralism, and participation. First, schools should be concerned with liberating rather than controlling. The basic goal of curriculum specialists should be "the development of autonomous, valuing human beings." Second, curriculum specialists should be cognizant that

students are unique persons and no subject matter, and no methodology is best for all students at any particular time. Thus schooling should be personalized rather than standardized and should reflect pluralistic life styles and cultures. Finally, persons who must abide by certain decisions should have a voice in making those decisions. In essence, students, parents, and teachers should share in decisions which affect them.

The psychological dimensions of the model are based upon humanistic psychology and humanistic-existential philosophy. It consists of a constant interacting of exploring, integrating, and transcending of immediate experiences, after which there are additional cycles of exploring, integrating,and transcending of new levels of awareness. These cycles are not sequential, but continue to flow back and forth to one another. This interacting is an individualized process and a process of creating personal meanings for individuals.

Exploring, in the humanistic-existential personal model of learning, is the preconscious and conscious modes of processing all that individuals are experiencing as they interact rationally and intuitively with their environment. Integrating is the preliminary structuring of some of the data are processed by a person. This integrating of data is expressed through values, perceptions, feelings, attitudes, information skills, and performance. It is a tentative knowing that one uses to restructure patterns, to reconcile sensed differences, to resolve paradoxes, and the like.

Finally, transcending is "insightful knowing", a personal knowing acquired as one acts on, and tests out the tentative knowing acquired in

the integrating phase. Macdonald maintained that schools emphasize the integrating process, and do not provide students the needed opportunity to attend to the exploring and transcending facts. A desirable school setting provides students with opportunities for exploring, integrating, and transcending.

The transactional dimensions include the "dynamic inter-relationship between persons, between a person and ideas and between a person and things in any specific context." The curricula and persons in the school setting should be flexible and allow for personal responses to the reality of the experiences by persons in the setting. To permit this flexibility and allowing of personal responses, continuous examination of values and commitments must be done by each person involved in the setting.

The relationship between teacher and student in the transactional dimension is one of mutual respect and trust. The learning of social and intellectual skills is holistic. These skills are continuously developed by students as they interact with other persons, with ideas and with events within their environment.

Within the content of the above paragraph, the curriculum is environment which has been deliberately contrived to facilitate the interrelationships within the transactional dimension of schooling. The curriculum should be organized according to selected areas of investigations instead around isolated subject areas. The students would select these areas of investigation after having the opportunity of "exploring", which is seen as the initial aspect of the learning process. Evaluation of the curriculum would center around the variety

responsiveness and quality of the educational setting. The evaluation process would be conducted by the educational staff and by the students through self-evaluations by the persons in the setting and by observations and questioning of persons involved in the setting.

Considerations For Any Planning Model

Bureaucratic and Professional Realities

The school organization functions under two areas: governance and curriculum and instruction.[44] Governance functions are performed under a bureaucratic form of organization (bureaucratic covenants). They are most appropriate in noncurricular and noninstruction areas. The main concern of persons performing governance functions is eliciting a positive reaction from the public.

Curriculum and instruction functions should be performed through agreements between persons who relate to each other in the professional decision-making mode (professional covenants). The professional decision-making mode is horizontal. It implies that professionals and their colleagues trust each other as valuable human resources in making decisions about curriculum and instruction.

Edgar L. Morphet, Roe L. Johns, and Theodore L. Reller refer to the bureaucratic covenants and professional covenants above as the traditional, monocratic, bureaucratic approach (autocratic) and the emerging, pluralistic, collegial approach (democratic), respectively. According to Morphet, Johns, and Reller, persons operating under the traditional, monocratic, bureaucratic approach believe that:

- Leadership is confined to those holding positions in the power echelon.
- Good human relations are necessary in order that followers accept decisions of superordinates.
- Authority and power can be delegated but responsibility cannot be shared.
- Final responsibility for all matters is placed in the administrator at the top of the power echelon.
- The individual finds security in a climate in which the superordinates protect the interests of subordinates in the organization.
- Unity of purpose is obtained through loyalty to the administrator.
- The image of the executive is that of a superman.
- Maximum production is attained in a climate of competition.
- The line-and-staff plan of organization should be utilized to formulate goals, policies, and programs as well as to execute policies and programs.
- Authority is the right and privilege of a person holding a hierarchial position.
- The individual in the organization is expendable.
- Evaluation is the prerogative of superordinates.[45]

On the other hand, persons operating under the emerging pluralistic, collegial approach believe that:

- Leadership is not confined to those holding status positions in the power echelon.
- Good human relations are essential to group production and to meeting the needs of the individual members of the group.
- Responsibility, as well as power and authority, can be shared.
- Those affected by a program or policy should share in decision making with respect to that program or policy.

- The individual finds security in a dynamic climate in which he shares responsibility for decision making.
- Unity of purpose is secured through consensus and group loyalty.
- Maximum production is attained in a threat-free climate.
- The line-and-staff organizations should be used exclusively for the purpose of dividing labor and implementing policies and programs developed by the total group affected.
- The situation and not the position determines the right and privilege to exercise authority.
- The individual in the organization is not expendable.
- Evaluation is a group responsibility.[46]

Morphet, Johns, and Reller maintain that neither the traditional, monocratic, bureaucratic approach nor the emerging, pluralistic, collegial approach is inherently good or bad. They noted, however, that (1) the traditional approach relies on centralized authority with a fixed "line-and-staff" (vertical) structure and operates in a closed climate; (2) the pluralistic approach functions in an open climate where the authority is spread out and shared. They also cited studies that revealed traditional monocratic organizations as being less innovative than pluralistic, collegial ones.

Functions of the School

Brubaker described five functions of schools.[47] The first function is confinement, i.e., keeping students in a certain place for a specified period of time regardless of their personal wishes about being there. Training is another function. Students are expected to learn certain predetermined skills. A third function is indoctrination. To insure that students behave in certain ways without questioning whether

or not those are the ways that they should or want to behave, rewards are given for the desired behavior and sanctions are applied for the undesired behavior. Another function is sorting. School officials decide which students go to certain schools, what they should learn, and how they should be evaluated. A part of the sorting process is to have students accept this function without question. The fifth function of schools is to provide conditions for personal or self-development. Less attention is devoted to personal or self-development than to the first four functions because (1) the first four can be measured and (2) students engaged in personal or self-development need time alone for introspection; many school personnel find this need for time alone threatening.

Oliva[48] cited the main functions of the school organizations by examining four major philosophies of education.

1. Reconstructionism - Reconstructionists branch out from John Dewey's philosophy that the function of the school should be seen in psychological and in social terms. They feel that the purpose of schools should be improvements in society. Schools should not simply function to transmit cultural heritage and study social problems. They should become active in solving political and social problems. Students should be exposed to subject matter that includes the unsolved, often controversial, problems that society faces. Solutions to the problems are sought through group consensus.

2. Perennialism - Perennialists see the function of schools as the disciplining of the mind, the development of the ability to reason, and the pursuit of truth. Perennialists believe that truth is eternal,

everlasting, and unchanging. They advocate highly academic curriculums which emphasize grammar, rhetoric, logic, classical and modern languages, mathematics, and most importantly, the great books of the Western world. The ideal education is one calculated to develop the mind. Perennialists look backward for answers to social problems.

3. Essentialism - The function of the schools, according to the essentialists, is the transmission and preservation of the cultural heritage. They seek to adjust students to society.

The essentialists' goals are basically cognitive and intellectual. Their core curriculum is made up of the 3 'R's and the academic subjects. They believe that the child should be tailored to the curriculum as opposed to tailoring the curriculum to the child. The essentialist curriculum fits well into the centralized administrative structures in education.

The principles of the behaviorist school of psychology are harmonious to the essentialists' beliefs. "Teachers of the behaviorist-essentialist school fragment content into logical, sequential pieces and prescribe the pieces the learner will study."[49]

4. Progressivism - Progressives believe that schools should provide for students' individual mental, physical, emotional, spiritual, social, and cultural differences. Schools should function as a democracy and not adhere to authoritatian practices. The students should function as partners in the learning process and should be engaged in reflective thinking. Thus, educators in the schools should (1) foster cooperation rather than competition in the school; (2) serve as counselors to students and facilitators of learning and not as expounders of

subject matter; and (3) consider individual growth of students in relation to their ability as more important than their growth in comparison to other students.

The functions of the school have also been sorted into four basic categories by McNeil.[50] One function is integration or general education. The curriculum addresses the learner as a responsible human being and citizen. With this thought, the curriculum planner decides what competencies the learner needs in order to support and share in the existing culture. The planner also considers desired outcomes and experiences that all learners should have in common. The second function is supplementation. Schools serving this function have curriculums that are personal and individual. It deals with the weaknesses as well as the unique potentials of learners. Another major function is exploration. The schools serving this function provide opportunities for its learners to discover and to develop personal interests. The final major function is specialization. This function is performed when learners are expected to develop expertise in the prevailing trades, professions, and academic disciplines of society.

Organizational and Personal Realities

In any organizational setting there are certain realities that exist: (1) organizations are social subsystems; interaction occurs within the subsystem (bureaucratic and professional covenants); (2) group interaction and personal commitment are used to realize functions within the organization. Curriculum planners must attend to both the organizational and the personal realities when attempting to initiate a curriculum planning model.

(1) Organizations are Social Subsystems

Social organization is thought of as the "network of social relations and the shared orientations ... often referred to as the social structure and culture, respectively."[51] Social organization encompasses the set of societal relations and processes of which organizations are a part.

Amitai Etzioni stated that organizations are social units (or human groupings) that have been deliberately constructed and reconstructed to attain specific goals. "Corporations, armies, schools, hospitals, churches and prisons are included."[52] Chester I. Barnard,[53] stated a similar point about organizations. He believes that organizations exist when two or more persons come together for purposes of establishing a "system of consciously coordinated activities" accomplished through conscious, deliberate, and purposeful coordination. He also states that organizations require (a) communications, (b) a willingness on the part of members to contribute, and (c) a common purpose among the members. Members of the organization must communicate, be motivated, and make decisions.

Warren G. Bennis summarized the characteristics of organization as social systems within the overall social organization (society) in the following manner:

> Organizations, by definition, are social systems where people have norms, values, shared beliefs, and paradigms of what's right and what's wrong and what's legitimate and what isn't, of how practice is conducted. One gains status and power on the basis of agreement, concurrence, and conformity with those paradigms. ...Every social system contains the forces for movement and the forces for conservatism- in the best sense of that word, which implies that one seeks to conserve the best and to move with some of the things one ought to move with.[54]

(2) Interaction within Organizations

Several explanations of interactions of members of organizations have been given by researchers. Hass and Drabek examine the interpersonal relationships that emerge during group interactions over a period of time. People form these interpersonal relationships and they have feelings, likes and dislikes.

> Interpersonal conflicts often become converted into interdepartmental conflicts. The formal structure is frequently circumvented, avoided, and by-passed so that the organizational work can get done. Thus, when one actually observes member interaction within organizations, he becomes aware of numerous behavioral processes, like informal information pipelines, that are absolutely critical to the functioning of the unit.[55]

Organizations maintain stability by adhering to a system of expectations (norms) and sanctions. When a person becomes a member of an organization, he/she is expected to assume a role in which the person acts in certain ways that are consistent with the members of the organization. Adherence of an organization's symbols, rituals, and myths serves the function of providing the expectations and sanctions to maintain the members' respective roles.

Brubaker stated that as persons interact with each other in their respective roles rituals begin to emerge in order to provide their participants with the emotional security that is associated with predictable behavior.[56] Symbols are concrete expressions of more abstract ideas held by members of the organization. They are "designed to quickly convey to the observer the whole set of emotions associated with the original meaning of that being symbolized."[57] Finally, myths are attempts by members to explain the unexplainable in their organization. They contain elements of reality and of unreality.

Persons within an organization interact by entering into covenants.[58] The covenants give persons who have entered the relationship the feeling that others who have entered into it will basically behave in a predictable manner. There are four kinds of covenants based upon the intensity of the commitment and the length of time involved:

1. little intensity - short duration.
2. high intensity - short duration.
3. little intensity - long duration.
4. high intensity - long duration.

In addition to assessing the intensity and the duration of group commitment, there is a need for examination of the intensity of personal commitment. Brubaker and Nelson proposed a hierarchy consisting of six levels of intensity of commitment in descending order.

1. I'll sacrifice my life and/or the lives of my family and/or those I dearly love.

2. I'll give up the respect of those whom I love and I'll forego my status and professional achievement.

3. I will forego economic security and my career.

4. I will have serious conflicts between what I think should be done and my reluctance to do it. I may have to alter my work style and give up those techniques which had previously been successful and beneficial and learn new ones.

5. I will have to alter some habits with which I'm quite comfortable, thus making my job somewhat more difficult. I will feel uncomfortable from time to time as I'll do things that don't seem to be the best way to do them based on my past experience and present assumption.

6. It doesn't make any difference as past experience dictates. My choice, therefore, is between tweedle-dee and tweedle-dum.[59]

Four sources of power are available to persons as they interact in covenants within an organization:[60]

1. Positional authority - Authority acquired from one's formal position in the organization, particularly in the bureaucratic areas of an organization.

2. Expertise - The ability to do something well; which, when recognized by others, imparts power to the expert.

3. Succorance - Informal power, accruing to those persons who give emotional support of a counseling or coaching nature.

4. Charisma - Power based upon the overall demeanor of persons who have a favorable impact upon others and tend to sway them in the directions they desire.

Weber[61] used a similar framework to examine the three types of legitimate authority and the validity of their claims to legitimacy:

1. Legal authority - Based on rational grounds, this authority can only be exercised within the scope of a given office, i.e., the scope of authority of the office or position is within what is accepted as the norm and "legal" by the organization; it is an impersonal acceptance of authority.

2. Traditional authority - Based upon the belief that the authority is "legal" because it has traditionally been accepted as legal, and accepted through a sense of personal loyalty within the boundaries of accustomed obligations.

3. Charismatic authority - Charismatic authority is based upon belief in charismatic but qualified leaders. There is personal trust in such persons and/or their exemplary qualities.

There are no indications that any one kind of covenant or power (authority) is best in all situations. There are situations in which each of them would function best.

Use Of Resources

The realization that society does not have unlimited (or even adequate) resources to achieve many of its goals, has led many individuals to reassess the availability and use of human and material resources.

Limited resources are a function of many factors. One factor is economic. Due to periods of economic recession and inflation it is difficult for educators to purchase material resources and to hire personnel as they have done in past decades. Persons may know where the additional needed resources are located, but do not have the funds to get them.

A second factor affecting limited resources is how the problem is defined. The discrepancy between what needs to be done and resources available to do it, in many instances, is frequently widened by definitions of what needs to be done. In essence, many definitions contain solutions that render the problem unsolvable because they demand far more resources than will ever be available to answer their needs as defined.

A third factor is competition for limited resources. The needed resources are available in short supply, and several agencies or individuals compete for that short supply. Oftentimes, this occurs because each agency (or person) sees itself as independent and isolated from the other agencies.

There are three vital forces that help curriculum planners cope with limited resources: recognition that one is always a choice maker, intentionality and efficacy, and power of dreams or visions of what should be done and what can be done.[62]

Persons who approach the problem of limited resources using the above three vital forces tend not to view themselves as victims of circumstances over which they have no control. Instead, they view themselves as always having the power to make decisions that influence themselves, others, and the environment.[63]

Curriculum planners may choose to use networks in an effort to cope with inadequate resources. A network is a collection of acquaintances that one can count on for some kind of help. It may include persons inside the organization as well as outside, as long as the relationship between each network member has two common characteristics: informality and purpose. Information, services, support, and access to other networks are exchanged in network relationships.[64] Other characteristics of a network are that (1) every unit within it does not interact with every other unit within it; (2) the units in the network do not have a clear boundary from the rest of the world and can never be fully described; (3) the only common characteristic of the units within a network is their relationship to the focal unit.[65]

According to Sarason[66] the relationship in networks are threefold:

1. Interpersonal, a means for persons to influence their environment (i.e., achieve personal goals) and a means through which the environment influences individuals (i.e., conveys norms and values).

2. Interorganizational - direct or indirect interaction between organizations such as educational institutions;

3. Intraorganizational - direct and indirect interaction between members of an organization such as an educational institution. It may be a formal hierarchial system used to set goals and to allocate resources or it may be nonhierarchical groups to carry out necessary tasks of the institution. Sarason proposed that because of the similarities in the functionally specific role group, and system categorizations of the above relationships, network conceptualizations and analyses applied to inter-organizational networks can fruitfully be applied to intraorganizational networks.[67]

In an attempt to cope with a lack of available resources, several universities and colleges now participate in consortiums. Within these networks, they are able to share human resources (professors) as well as material resources (equipment, facilities, inter-library loans, etc.). Thus, duplication of limited resources is reduced.

Team planning is one method for establishing intraorganizational and interpersonal network relationships and for sharing human resources in the university setting. The Lindberg and Swick[68] report on the results of their experiences during their two years of team teaching supported the claim that team teaching is one appropriate approach to share human resources within the university setting. They state that several subtle but vitally important outcomes can emerge from a cooperative team effort when two autonomous college teachers share students, a classroom, and the limelight. Those important outcomes that most affected them were

personal growth, teaching style, and mutual support. Other positive outcomes of their team teaching effort were (1) realization that good communication between peers involves deep personal and interpersonal analysis and (2) realization that they were modeling for their students the concepts of sharing, i.e., teaching ideas and material resources, accepting differences as enriching, not damaging, and the give-and-take that is involved in compromising.

The Lindberg and Swick report was consistent with the results of the Swick[69] study. Swick stated that team planning can promote effective instructional and social behavior of the teaching staff which will in turn help them to provide a comprehensive, diverse and enriched educational program. He reported that the key variable in productive team planning is the interpersonal and intrapersonal communications procedures existent among team members.

Several other colleges and universities have reassessed and/or restructured the curriculum and subject matter boundaries within their individual institutions to better utilize their resources in an effort to create a sense of unity, community, and wholeness of knowledge for its students.

McGrath[70] (1978) stated that students may want to enroll in courses or programs which will assure them of jobs, but they also want their universities to help their generation deal with a host of pressing matters such as unemployment, crime, pollution, and political corruption. The way to create such courses is to have both laymen and professionals identify social, personal, and civic problems of the day. Once topics

are decided, representatives of various departments in the university should assemble and determine what elements of their discipline could contribute to the themes under study. In addition to university department members, the university should use resources of persons outside the university in such courses.

McGrath cited Kenyon College as a model of an interdisciplinary program. The college's interdisciplinary courses are organized around two major themes--freedom and responsibility. At Kenyon, participants in the Integrated Program in Humane Studies are students with good academic records. The program involves extensive reading assignments in the classics. Each student is expected to read, analyze, and reflect on the works in writing. In addition to attending general lectures, students participate in weekly small group seminars and individual tutorials. Students are expected to prepare a position paper expressing their personal views on the work under study for each seminar or tutorial meeting. The seven faculty members in the program meet each Monday to plan the following week's work.

McGrath cited Warner Pacific College as an example of a college with a successful interdisciplinary course. The Culture of Western Man is a required course for all freshmen and sophomores at the college. The course is designed to remove the barriers between the disciplines and to introduce students to central questions of life such as: Is man free? What is progress? What are the eternal values? Participating faculty members from various departments give two weekly lectures and all participating faculty attend all lectures. In addition to attending

the lectures and examining readings from classical literature, the students attend small group sessions and participate in discussions that employ the Socratic Method. Questionnaires administered to students at the end of the course indicate almost without exception that they approve of both content and methodology.

The SOAR Project, Stress on Analytical Reasoning, at Xavier University[71] is an interdisciplinary summer program in science and mathematics. It includes the joint efforts of the biology, chemistry, computer science, mathematics, and physics departments to develop in students five of the major mental skills intrinsic to the formal level of cognitive development. Those mental skills include the abilities to control variables, to use probablistic reasoning, to use combinational logic, to recognize correlations between variables. The program consists of five faculty members, five learning assistants, and seventy-five students. In the SOAR project, a three-hour problem-solving laboratory is held each morning. Typically, afternoons were devoted to training in supplementary skills, field trips, career counseling, and social activities. Faculty form all five disciplines'concurrently designed learning activities to develop each of the five targeted skill areas. The faculty response to this program has been enthusiastic and the student response has been uniformly positive.

Although these institutions differ in the degree to which they have restructured their curriculums, they all report success and satisfaction with their new curriculum and use of human and material resources. The new curriculums involved use of professors and facilities

simultaneously, from several areas of the institutions to teach students in interdisciplinary programs. Teachers directly involved in those new curriculums express satisfaction that they and the new curriculum were more effective than their earlier one in teaching their students.

Teacher Efficacy

Efficacy is defined in this study as a sense of internal control, of being able to produce certain intended outcomes. Consistent with this definition, teacher efficacy is a sense of being able to produce certain intended or desired outcomes in one's classroom.

Sherman and Giles[72] propose that "teachers must believe in a direct relation between what they do and what their students learn." They, along with studies by Armor et al.,[73] Berman and McLaughlin,[74] and Rose and Medway,[75] suggested that a greater sense of efficacy by teachers is associated with higher student achievement. None of these studies has been able to establish what this relationship is. Sherman and Giles stated that

> personal control seems to imply a pervasive underlying attitude that may be relevant to acceptance of changes in the educational system. Commitment to innovative instructional practices, to understanding of culturally different children, to individualized instruction may all be a function of how effective an individual teacher believes personal effort from him or herself and from the student can be. Thus, the influence on behavior may be subtle and difficult to observe, though the effect on student learning may be real.[76]

Cochran and Moodie[77] proposed that faculty members in higher education may use five interrelated elements to assess their teaching effectiveness:

1. Planning Activities . The planning process should be acknowledged as a major component of teaching. It can be argued that the success of a teacher's classroom performance largely depends upon the amount of thought and creativity that goes into preparation for that performance.

2. Classroom Activities. Interaction between teacher and student is the key factor in effective teaching which moves the student to become a self-motivating learner. Four primary sources may be used to collect information about classroom activities. First is observations by peers, department chairpersons, and other administrators which are used to present outside value judgements. The second source is team teaching which provides an opportunity for a colleague to become thoroughly acquainted with a faculty member's planning process and interactions with students without disrupting the classroom. Third, video tapes of classroom activities may be viewed by colleagues in and outside the department. Fourth, student ratings may be used, in addition to other sources, to provide feedback about a faculty member's teaching effectiveness.

3. Student Performance. Student performance may be used to provide insight into teaching effectiveness.

4. Personal Characteristics. Personal factors such as concern or compassion, competence, and enthusiasm constitute principle elements in teaching effectiveness.

5. Research, Creative Efforts, and Publications. These activities often require the same skills and competence as classroom activities. Prominence in these activities may be a motivational factor to students.

Berquist and Phillips[78] stated that in many instances faculty in higher education prefer self-evaluation to student evaluation of their teaching performance. They maintained that any attempt at instructional improvement on the part of faculty members takes place only if they evaluate their own performance as inadequate or below her own personal standards. Thus any university that encourages faculty development should provide an opportunity for faculty members to assess their own strengths, weaknesses, and areas for improvement.

Doyle and Webber[79] examined teacher efficacy by use of self-ratings by college instructors. The findings of their study encouraged their conclusion that instructors are basically aware of their academic strengths and weaknesses and that self-ratings can play a useful role in instructional diagnosis and improvement. They found that instructors' ratings of their overall teaching ability correlated with their estimates of how much their students learned. They also suggested that other rating items may include scholarship, supplying opportunities for practice and feedback, and effective use of course materials and other teaching aids.

Summary of Chapter

The review of the literature on curriculum planning revealed that sequential models that advocate control and prescriptive measures have predominately influenced curriculum planners since the turn of the century. However, alternatives to this model have been presented in hopes of focusing attention on the need for acknowledging the aesthetic and moral dimensions of education.

With any curriculum model that the curriculum planner accepts or proposes, there are certain realities that the curriculum planner must

consider. First, she must consider the bureaucratic and professional realities that exist. There will be bureaucratic covenants formed to operate the school in noncurricular and noninstruction areas, and there will be professional covenants to perform functions in curricular and instructions areas. Curriculum planners should not only be cognizant of the appropriate covenants and decision-making modes for both areas but they should consider appropriate covenants and decision-making modes for those areas that are not clearly distinguished as either bureaucratic or curricular and instruction.

Another factor curriculum planners should consider is the function of the school. They will attempt to create an environment conducive to carrying out those functions they consider to be appropriate for an educational setting.

The curriculum must also consider certain organizational and personal realities that exist within an educational setting. The educational setting is a social subsystem, i.e., a social unit that has been deliberately constructed to attain specific goals. Within this social subsystem, interaction occurs through bureaucratic and professional covenants, and personal commitments are used to realize functions within the school setting.

The research literature on the use of resources revealed that limited resources are function of several factors. How curriculum planners choose to cope with this obstacle affects their ability to reach certain goals. One effective method for coping with limited or inadequate resources is networking which provides the curriculum planner with

information, services, support, and access to other networks. The relationships established within networks may be interpersonal, inter-organizational, or intraorganizational.

Using the idea of networking, several universities have reassessed and/or restructured curriculum and subject matter boundaries within their institutions to better utilize their human and material resources. In addition to successfully coping with limited human and material resources, teachers from these institutions were satisfied that they and the new curriculum were more effective in helping students learn than they were while utilizing the earlier curriculums.

Teacher efficacy is defined in this study as a sense of being able to produce certain intended or desired outcomes in one's classroom. The university teachers mentioned in the above paragraph experienced efficacy as defined in this study. They believed, as Sherman and Giles[80] proposed, "teachers must believe in a direct relation between what they do and what their students learn"; they possessed a greater sense of efficacy that was associated with, but distinct from, higher student achievement. Thus, when one considers the expressed feelings of increased teacher efficacy by teachers in studies on resource sharing and compare them with the similar expressed attitudes and characteristics reported in studies on teacher efficacy, there appears to be a relationship between these two variables.

CHAPTER III

METHODOLOGY

This chapter will describe the methods and procedures that are used in this study. The main topics included are (1) case study as a methodology, (2) scales and dimensions of the study, (3) procedure of the study, and (4) the pilot study.

Review of Purposes of this Study

The purposes of this study are (1) to examine the extent of formal and informal interdepartmental sharing of resources in a small university setting,and (2) to examine the extent to which academic personnel perceive a higher degree of efficacy while engaged in formal and informal interdepartmental sharing of resources in a small university setting. These two purposes will be examined using the case study method.

The logic of this study is that there are limited resources available and interdepartmental sharing is a logical solution to this problem. The researcher will attempt to establish that (1) interdepartmental sharing occurs in a particular small university setting,and that (2) a relationship between the two variables, teacher efficacy and shared resources, does exist in this small university setting.

Different methods may be used to research the relationship between teacher efficacy and interdepartmental sharing of resources. For example, one method that could be used is large-scale data collection. This

method would use teacher efficacy as a dependent variable and a set of respondent attributes, i.e., interdepartmental sharing of resources as independent variables. The simple regression, multiple regression, and discriminant analysis are typical methods used in empirical research.

In descriptive research, the primary objective is the description of events and objects and the actual historical interaction between and among them. Descriptive research can provide an explanation of events which have taken place in the past. One type of explanation of events involves the notion of causality.

The building of a descriptive model usually starts with inductive reasoning. A small sample of cases are studied and commonalities are identified. Next, these commonalities are specified as factors to be included in the preliminary model. Descriptive research could easily be directed towards investigating which variables significantly affect teacher efficacy. Data would be secured by issuing a questionnaire to a random sample of faculty and administrators.

The case study method is an alternative to the approach of large scale data collection. Case studies require the use of only a few subjects. These subjects are observed closely in an effort to obtain the same information sought by using a regression model.

The interview is used in the case study method. It may consist of predetermined questions but the interviewer has flexibility to (1) clarify questions for participants if they do not understand them, (2) make judgements as to whether participants have adequate knowledge to answer a particular question, and (3) estimate the intensity of expressed attitudes.

The case study method was chosen over the empirical method in this study to examine the effect of one key variable, interdepartmental sharing of resources, on teacher efficacy for the following reasons:

(1) Regression analysis is not valid unless all the possible variables which affect teacher efficacy are included.

(2) The case study method allows the researcher flexibility to pursue responses indicating additional variables that possibly affect teacher efficacy.

(3) Regression analysis requires a large random sample from several small universities. The researcher chose to observe, in detail, a small sample of participants from one small university.

A detailed discussion of the case study method and the appropriateness of its use in this study will be discussed in the following section of this chapter.

Case Study as a Methodology

McAshon[81] stated that the case study method is appropriate to use when there is

(1) a lack of information about a matter,

(2) conflicting information about something deemed to be important, or

(3) misinformation about some individual or group; or

(4) just an attempt to gain new insights into factors that result in a given behavior or complex situation.

An extensive review of the literature revealed little information on interdepartmental sharing of resources. The literature review also revealed that sharing of resources, especially informal sharing of resources

in the small university setting involves several different behaviors and situations. Thus, according to Ely Chinoy, therein lies "the value of the case study method... in its effort to discover all the variables relevant to a given case. The case study attempts to convey an understanding of a class or type of phenomena by the full description and detailed analysis of one or a series of cases belonging to that class."[82]

Case studies allow "real study of social processes and complex interdependencies in social systems."[83] McCall and Simons also stated that "a number of techniques - direct observation, informant interviewing, document analysis, respondent interviewing, and direct participation are typically and to some degree necessarily involved in a field study of any complex social organization."[84]

The use of the case study method is based upon the belief that human beings "are not things and should not be treated as things; they should not be experimented upon, controlled, duped, and generally used in the name of science. Even a scientific reduction of a person to a set of variables is in a way disrespectful because it mutilates integrity. ...The only instrument that is good enough for studying human beings is man himself. Only the human observer is perceptive enough to recognize and appreciate the full range of human action; only the human thinker is able to draw the proper implications from the complex data coming from human systems."[85]

Paul Diesing stated that conducting a case study requires certain responsibilities of the observer.[86] These may be summarized as follows:

(1) The observer must be acquainted with the proposed subjects and with a variety of theories that may be applicable to the case prior to going into the field. This researcher has read published histories of the university to be investigated. These histories contained information about symbols, rituals,and persons who have influenced the traditions, values,and development of the university as it exists at the present time.

The theoretical issue that the researcher focuses on is the relationship between interdepartmental sharing of resources and teacher efficacy. The researcher's hypothesis is that persons who experience a higher degree of interdepartmental sharing will feel a higher degree of teacher efficacy.

(2) The observer's activities in the field are divided into two categories which may be called scheduled and unscheduled. The scheduled activities include routine data collection that are basically external and disconnected, meaningless by themselves but capable of taking on meaning for a person who knows the setting intimately. Scheduled activities in this setting include recording the subjects' daily academic schedule and interviews with the subjects.

The unscheduled activities are those in which the observer is constantly engaged despite official activities. These are the nonplanned activities that render the observer acceptable to the hosts without deception.

(3) The observer discovers and interprets recurrent themes that reappear in various contexts. As soon as the participant observer

begins to be socialized he can begin observing, thought not as yet participating. His observations and his scheduled activities together produce a steady supply of data, though in a haphazard and helter-skelter fashion. He does not wait for collection of data to be collected, processed, and analyzed, as in survey research methods, but begins immediately to develop his case. "His first step usually is what has been called 'engaging in free-floating attention' (Erikson, 1959a) or 'listening with the third ear' (Reik, 1949). It is a process of waiting to be impressed by recurrent themes that reappear in various contexts."[87] His waiting is not entirely passive; it may involve running over his check list and observing that something is recurrently absent, or observing that a hypothesis one has taken into the field is continually supported or disconfirmed, or observing a regular contrast with some other situation. Often, however, it is simply a matter of being surprised by something. Some occurances are major in that they appear frequently and in many different contexts, while others are minor.

After a theme has been identified it must be interpreted. The theories and hypotheses formulated prior to going into the field can help to interpret, i.e., give meaning to a theme. Every interpretation of a theme is tested continuously.

(4) Themes and interpretations of themes are tested by comparing them with evidence that is already available or with new evidence. Various pieces of evidence are interpreted in the context of other pieces of evidence to determine their meaning. For instance, a Rorschach test might provide evidence that a person is prone to use a certain kind of defensive

tactic, say dissociation of affect; a Thematic Apperception Test might specify the kind of interpersonal situation that the subject sees as threatening and requiring defense; direct observation might yield evidence on the behavioral manifestations of the defensive tactic; and a life-history interview might suggest the latent meaning of the tactic for the person. Taken separately, these bits of evidence mean little; combined, they tell a good deal about the person and about each other.[88] Since the participant observers always have several different kinds of evidence available in the setting, they can always assess the validity of a kind or piece of evidence in the context of others.

The contextual validation of a piece of evidence collected will be done by comparing it with other kinds of evidence on the same point and evaluating a source of evidence by collecting other kinds of evidence about that source. An example of the latter contextual validation is estimating observer bias by checking observations against information obtained from written documents and from informants' opinions.

There are several kinds of evidence in the case study method that can be used for cross-checking and reinterpretations. These include

(a) informant statements, which provide information about a variety of events that the observer could not personally observe, and which can be cross-checked by comparing reports from several informants about the same event;

(b) written documents, which include memoranda, stated goals and aims, minutes from meetings, course syllabuses and the like;

(c) personal observation, which usually provides the best evidence of ordinary behavior and overt personality factors. One part of the ordinary behavior to be observed by the researcher is the sharing of human and material resources. The observed personality factors will include the various leadership styles manifested by the educational personnel in the study ; and

(d) tests, which serve as cross-checks for information gathered from other evidence that has been covered on a point. In this study tests will provide cross-checks on information previously gathered from observations and interviews about the subjects' evaluative procedures for purposes of getting feedback for further curriculum planning.

(5) A model is constructed by connecting tested themes in a network or pattern. The connections of tested themes which combine to form the model are continuously tested against other types of evidence in the same manner as the themes. The functions of the model are to describe and to explain. It describes the activity of the whole system being studied; through this description comes an explanation. This type of explanation is called the pattern model of explanation[89] because persons have an explanation for something when they understand it.

The test of objectivity for the pattern model of explanation is prediction; that is, we can expect to find certain other elements in certain places if the pattern is actually comprised of objective relations. In essence, "as we obtain more and more knowledge it continues to fall into place in this pattern, and the pattern itself has a place in a larger whole."[90]

In addition to fitting knowledge and events into a pattern already given, explanation can find and create a new pattern for old and new data. The new pattern helps persons see and understand relationships between bits of old knowledge that had been previously unnoticed. Thus it is rare for a pattern ever to be finished completely.

(6) Theoretical implications that will carry over to other cases and a report of the case study must be written. Once the observer has constructed and tested a model, she should reproduce it as well as provide suitable evidence and reasoning to make acceptance of the model plausible.

It follows then that the case study method as described by researchers in the above paragraphs is an appropriate method for use to gain new insights into factors that result in a given behavior or complex situations without yielding misinformation about the subjects involved in the study.

Scales and Dimensions of the Study

The researcher will examine the formal and informal interdepartmental sharing of human and material resources. The study will focus on the sharing of those resources within the following dimensions:

(1) the extent of informal interdepartmental sharing of human resources

(2) the extent of informal interdepartmental sharing of material resources

(3) the extent of formal interdepartmental sharing of human resources

(4) the extent of formal interdepartmental sharing of material resources

(5) the subjects' behavior toward and knowledge of the interdepartmental sharing of resources (formal and informal).

The researcher will measure the extent of formal and informal interdepartmental sharing of human and material resources by using the Hall and Loucks Level of Use (LoU) Model.[91] The LoU Model will examine the different degrees of use of human and material resources within the different dimensions of interdepartmental formal and informal (networking) sharing. A review of studies such as Asher, Fullan and Pomfret, and Proper[92] indicates that the use of the LoU instrument is appropriate because it can account for the individual variations in the case of an innovation.

The information from the LoU scale is based on data gathered during a structured interview with the subjects in a study. Fullan and Pomfret statedthat "the focused interview used by Hall and Loucks (1976) seems to have considerable merit.... The authors (Hall and Loucks) were able to gather valuable data that could then be content analyzed to determine the level of effective use of a given innovation by that respondent."[93] Fullan and Pomfret also statedthat the Hall and Loucks method could be used to gather information to determine the nature and forms of implementation.[94]

Although the concept of LoU represents a developmental growth continum, there are key points that distinguish each of the eight Levels of Use. These decision points are also described in the LoU Chart. By checking out these points, it is possible to quickly assign an overall LoU to a given individual. The fuller complexity of what the user is doing can be assessed by probing further in each of the categories.

The LoU model begins with Level 0, the state of non-use, and moves progressively to Level VI, the state in which the user reevaluates the quality of the use of the particular innovation and seeks to make major modifications to the present innovation. The LoU is targeted toward describing the behaviors of resource users. It does not focus on the attitudinal, motivational, or other affective aspects of the resource user. A copy of this model appears in Appendix A.

The LoU Model has eight Levels of Use of an innovation that an individual may demonstrate:

(0) Non-Use - The user has no involvement in the use of the innovation and is doing nothing toward becoming involved.

(1) Orientation - The user has begun to acquire information about the innovation.

(2) Preparation - The user is consciously preparing for the first use of the innovation.

(3) Mechanical Use - The user is awkwardly using the innovation and will modify the original innovation to fit his or her needs rather than theclients' needs.

(4a) Routine - The user is comfortable with use of innovation and makes few if any changes in the use of it.

(4b) Refinement - The user now begins to make some changes in use of innovation to increase benefits for clients.

(5) Integration - The user makes deliberate efforts to coordinate her efforts with efforts of others in improving innovation to benefit clients.

(6) Renewal - The user seeks major alternatives to the presently used innovation.

Each of the eight Levels of Use of an innovation has seven categories:

(1) Knowledge - The user's knowledge about the characteristics, use of and consequences of innovation's use.

(2) Acquiring Information - The extent that the user actively solicits information about the innovation in a variety of ways.

(3) Sharing - The discussion of the innovation with others.

(4) Assessing - The user's analysis of the potential or actual use of the innovation.

(5) Planning - The user's plans regarding the adoption of the innovation.

(6) Status Reporting - How the user regards the use of the innovation at the present time.

(7) Performing - The degree to which the user uses the innovation.

Hall, Loucks, Rutherford and Newlove explained these categories by stating that they "represent the key functions that users carry out when they are using an innovation. At each level, the category descriptions represent the typical behaviors that users at that level are engaged in. However, an individual may not be on the same level in all seven categories.... When such variations occur, they become further clues for interpretation by the adoption agent and the researcher."[95] In this study the seven categories within each of the eight levels of the LoU Model will be used to measure the subjects' behavior toward and knowledge of the interdepartmental sharing of resources.

The second scale used in this study to supplement and cross-check data collected from observations is the Vroom and Yetton Model.[96] The Vroom and Yetton Model uses a taxonomy of decision processes by which decisions can be made and problems can be solved. The decision processes may be applied to group problems and individual problems. Using this model, the decision processes applied to decision making for the entire group or some subset of it include two variant types of autocratic decisions wherein one solves the problem or make the decision yourself; two variant types of consultative decisions (one shares the problem with all or some or subordinates, then makes the decision); and a group decision (you share the problem with your subordinates as a group and together you and they reach agreement in the decision).

Application of the Vroom and Yetton Model for decision-making for problems or decisions involving a single subordinate includes

(1) autocratic decisions in which either one make the decision by yourself using only the information available at the time, or one gathers the necessary information from the subordinates then make the decision ;

(2) consultative decisions in which one gets input from the subordinate about the problem, then make the decision which may or may not reflect his influence;

(3) a group decision in which the problem is shared with the subordinate and together arrive at a mutually agreeable solution or decision; and

(4) a delegated decision in which one delegate to the subordinate, give her/him the information you have and let her/him solve the problem.

A copy of the taxonomy of the above decision processes appears in Appendix B. It is the researcher's hypothesis that different degrees

of involvement in the sharing of material and human resources as measured on the Hall and Loucks LoU scale will correlate with certain leadership styles on the Vroom and Yetton scale. For example, persons who are at Level 0 (non-use) on the LoU scale will tend to have AI (autocratic) leadership styles and relationships with colleagues. Persons who are at either Level 4b or 5 will tend to have C (consultative) or G (shared governance) leadership styles.

Procedure of the Study

As stated above, one purpose of this study is to examine the extent of formal and informal interdepartmental sharing of resources in a small university setting. The data to examine this sharing of resources were collected primarily through direct observation. The researcher acted as a nonparticipant observer. In the initial phase of data collection, each subject was be observed for one week, approximately three hours per day, for purposes of observing formal and informal activities which involve curriculum planning and the use of various human and material resources in and outside of the classroom.

Supplemental data were collected in addition to the information obtained through observations. These data included informal and formal interviews, stated school goals, departmental goals, budget proposals, class syllabuses, routine memoranda, and any other correspondence or communications that will be made available to the researcher.

After the above data had been collected, the researcher measured the extent of formal and informal interdepartmental sharing of human material resources that was observed by using the Hall and Loucks

Level of Use (LoU) Model. The LoU Model was used to examine the different degrees of use of human and material resources within the different dimensions of interdepartmental formal and informal (networking) sharing.

After the Hall and Loucks LoU Model had been used to determine the extent to which each of the subjects engages in formal or informal (networking) sharing, the findings of this instrument were compared to each subject's rating on the Vroom and Yetton Model of Leadership Styles. The emphasis of this comparison was on the overall use of human resources and networking.

The second purpose of this study was to examine the extent to which academic personnel perceive a higher degree of efficacy while engaged in formal and informal (networking) interdepartmental sharing of resources in a small university setting. The academic personnel's sense of a greater degree of efficacy was reflected to the extent that they a sense of internal control in the use of eight dimensions of curriculum planning,[97] which are as follows:

(1) goals and their priorities;

(2) content of curriculum;

(3) types of learning opportunities;

(4) organization of learning opportunities;

(5) organization of content areas;

(6) mode of presentation;

(7) mode of response; and

(8) types of evaluation procedures.

Indicators of these eight dimensions of curriculum planning have been discussed in Chapter I.

The data for examining the degree of efficacy in these dimensions of curriculum planning were collected primarily through direct observations and interviews with the subjects. The direct observations were conducted in and outside of the classroom focusing on those behaviors that had been identified as indicators of efficacy in the eight dimensions of curriculum planning.

The researcher conducted formal and informal interviews with each of the nine subjects involved in the study. The informal interviews on most occasions emanated from instances in which the researcher asks the subjects to clarify some comment made or behavior observed or when the participants volunteered information.

The formal interviews were structured and designed specifically to provide some evidence (in addition to that obtained through observations) of the extent to which each of the participants perceived increased efficacy while engaged in formal and informal sharing of resources in a small university setting. The information collected through the interviews and direct observations was supplemented by additional data such as written departmental and school goals, school and departmental budget proposals, class syllabuses with subjects, formal and informal interviews, and routine memoranda from each of the academic departments. It is the researcher's hypothesis that a higher degree of efficacy will be reflected to the extent that the subjects feel a sense of internal control in the use of the eight dimensions of curriculum planning.

The subjects selected for this study includedone dean, one departmental chairperson, and one faculty member each from the Schools of Business, Arts and Sciences, and Education in the small university setting. The subjects were chosen as representatives of curriculum planners at the various ranks of academic personnel within the schools in the university. These persons were also chosen because they are representative of the various degrees to which educators share resources.

The Pilot Study

A pilot study which consisted of a trial administration of the structured interview was conducted. It was administered by the researcher after a review of the literature on job satisfaction, efficacy, teaching, and curriculum planning revealed that a structured questionnaire for the purposes of this study did not exist.

Preparations for the design of the interview used in the pilot study were organized according to the following steps suggested by Henerson, Morris and Fitz-Gibbon:[98]

1. Determine what useful information the interview might provide about program effects.

   Useful information consisted of indicators of shared human and material resources and of teacher efficacy.

2. Decide on the structure and approach of the interview.

   The researcher decided that a guided interview with a definite agenda, i.e., a set of questions to be covered and asked in a fixed sequence, would be appropriate. Information from the structured interview would supplement data collected from informal interviews with the subjects.

3. Decide on the number and sequence of questions.

   Initially there were eight questions designed to gather information about the degree of shared human and material resources and teacher efficacy. The question sequence moved from general to specific to give the subjects an opportunity to respond with as little restriction as possible.

4. Draft questions and critique them.

   Questions are critiqued to ascertain that the subjects understood the terminology used in the questions and to ascertain that they could provide the information asked in the interview questions.

5. Decide how you will summarize and report the interview data.

   The data will be recorded with notes taken by the researcher during the interview. The data will be summarized and reported in paragraph form.

6. Add the introduction and probes.

   An introduction was written to provide the subjects with information about (a) the purpose of the interview; (b) how the data from their responses would be used; and (c) what would be expected of them during the interview.

   Probes, questions asked to obtain additional information to clarify or elaborate incomplete or unclear answers, would be used to elicit the best possible responses from the subjects. The researcher will record the subject's responses by taking notes during the interview. These notes will basically comprise key phrases and features of the subjects responses. Immediately after the interview the researcher will write out the subject's full responses in as close to their exact words as she can recollect.

7. Select the interviewer(s) and conduct a few tryouts.

   The interviewer for this study is the researcher. A pilot study of the interview was arranged to determine the appropriateness of the interview questions.

8. Prepare the interviewer(s).

   The researcher prepared herself for conducting the interviews by reading research literature on the proper methods for conducting interviews and by conducting practice interviews.

9. Make arrangements for the interviews.

> All interviews were arranged to be conducted in places that provided a quiet, relaxed atmosphere and where the participants were free from interruptions. They were spaced to provide ample time for the researcher to rewrite notes and summarize responses from an earlier interview before the next interview was scheduled.

The subjects participating in the pilot study were four faculty persons who were employed at the university where the study was conducted. These subjects were administered the open-ended interview as it appears in Appendix C. In preparation for answering Questions 1 and 2, they were given (1) copies of the goals for the school and department where they were employed within the university, and (2) a list of stipulative definitions of terms used in the interview. The written goals and stipulative definitions were kept in hand by the subjects during the interview. Below is a list of the definitions of terms given the subjects:

(1) Learning - "...what occurs when a person makes sense out of what he(she) encounters or experiences in interacting with self, others, and the environment. In some cases there is an apparent change in the person's behavior due to participation in the learning process, whereas in other instances, a seed is simply planted that may lead to change at a later time."

(2) Human Resources - any personnel at the university.

(3) Material Resources - equipment, buildings, space, etc.

(4) Efficacy - sense of internal control.

After responding to the interview questions, the subjects were requested to give the researcher feedback about the administration of the interview and about the clarity and relevance of the questions that they were asked. All four subjects stated that the interview was conducted extremely well. They commented that while conducting the interview,

the researcher made no gestures, used no loaded words, and made no statements that would influence how they responded to the questions asked. One subject commented, "...I have participated as a respondent in several interviews this past year and this has been one of the best conducted ones."

The subjects' feedback about the clarity and relevance of the questions used in the interview indicated that overall, these questions were clear and relevant. However, there was criticism about the order of the questions asked. Two of the subjects felt that it would be more effective to begin the interview with the specific questions than beginning it with the general questions. They stated that the specific questions gave them some definite ideas about kinds of information needed from them. On the other hand, when the interview began with general questions such as "To what degree are you in agreement with the stated goals of the School of _____?", they had difficulty focusing on how to respond in a way that would provide the information needed by the researcher. These comments reinforced earlier observations made by the researcher as she had conducted the interview.

As a result of the feedback and observations, the following changes were made:

(1) The order of the questions was rearranged and the final form of the interview now begins with specific questions and ends with general questions.

(2) Question 2 of the final set of interview questions was added (Do you feel that if some of the available human and/or material resources in other departments or schools within the university were shared with your department (school) it would help you provide better learning opportunities for your

students?). Question 2 was originally a probe that the researcher had asked to subjects as a follow-up to Question 5 of the initial set of questions (To what extent do you feel that you can get your students to actually learn the content covered in your courses /department , school/?).

(3) Question 6 in the pilot interview was modified and separated into two questions to show a direct relationship to the availability of resources. They appear as Questions 4 and 5 in the final interview form.

(4) Question 8 in the pilot interview was modified to elicit specific responses that showed a direct relationship between the subjects as curriculum planners and their use of resources for evaluation as a tool for feedback. The revised format of question eight appears as Questions 6 and 7 in the final interview form.

(5) Questions 12, 13, 14, 15, and 16 were added to the final interview form. Answers to these five questions provided useful information that was not adequately provided by responses to the first eleven questions.

When the final form of the structured interview was administered, there were no comments indicating the need for further revisions. With this response, the researcher decided to administer the structured interview in her study as it appears in Appendix D.

CHAPTER IV

THE STUDY

This chapter describes a case study based upon the methodology discussed in Chapter III of this study. As the preceding chapters have indicated, this case study was conducted to (1) examine the extent of formal and informal interdepartmental sharing of resources in a small university setting and (2) to examine the extent to which academic personnel perceive a higher degree of efficacy while engaged in formal and informal sharing of resources in a small university setting.

Description of Case Study

Setting

The case study was conducted on the campus of a small North Carolina university. The student population of the university is approximately 5,400. The primary purpose of the university as defined by the North Carolina General Assembly is as follows:

> The primary purpose of the College shall be to teach the Agricultural and Technical Arts and Sciences and such branches of learning as related thereto; the training of teachers, supervisors, and administrators for the public schools of the State, including the preparation of such teachers, supervisors, and administrators for the Master's degree. Such other programs of a professional or occupa-

> tional nature may be offered as shall be approved by the North Carolina Board of Higher Education, consistent with the appropriations made therefor.

The university awards both undergraduate and Master's degrees, but like many public institutions, it operates with fewer resources than the personnel feel are needed to meet institutional goals and objectives.

Participants

The nine participants involved in this study are educators at the small university previously described. Three of the participants were deans, three were departmental chairpersons, and three were faculty members. These particular participants were chosen because they all expressed a need for additional resources, they represent the three academic ranks of educators involved in the curricular and instruction area of the school setting, they were accessible to the researcher, and they were willing to participate in the study. Hereafter, the individual participants will be referred to by a letter of the alphabet for purposes of anonymity.

Cases of Individual Participants

By way of review, information for the case studies was gathered through observations, informal interviews, and formal interviews. Supplemental information, such as written school and departmental goals, class syllabuses, routine memos, and written reports reflecting a sharing of resources, was also examined to provide additional perspectives to the information that the researcher collected through observation and interviews.

After data for the case study of each participant were collected, the researcher assessed the extent of formal and informal interdepartmental sharing of human and material resources that was observed by using the Hall and Loucks Level of Use (LoU) Model (See Appendix A). The Level of Use Model allowed the researcher to examine the different degrees of use of human and material resources within the different dimensions of interdepartmental formal and informal (networking) sharing.

After the Hall and Loucks Level of Use Model had been used to determine the extent that each of the subjects engage in formal and informal (networking) sharing, these findings were compared to each subject's rating on the Vroom and Yetton Model of Leadership Styles (See Appendix B). The emphasis of this comparison will be on the overall use of human resources and networking.

The second purpose of this study was examine the extent to which academic personnel perceive they have a higher degree of efficacy while engaged in formal and informal interdepartmental sharing of resources in a small university setting. The academic personnel's sense of efficacy will be reflected in the extent to which they feel a sense of internal control in the use of eight dimensions of curriculum planning. Those eight dimensions and their indicators have been discussed in Chapter I.

Synopsis[99] of Participant A

Participant A is a faculty member in the School of Business. She has good rapport with the students and with her peers. Observations and interviews revealed that she was satisfied that she provided the types of learning opportunities that would help her students learn and retain the

content of her courses. Based upon follow-up on how her students perform in later courses, she estimated that her students have approximately 70 percent retention of the content taught in her classes. However, she believes that if some of the resources available in other departments were accessible to her department, her students would have better learning opportunities. She has used and is currently using some resources such as secretarial services, use of a computer terminal, and some other hardware equipment from other departments through informal networks. Her regular interactions and exchange of ideas with other colleagues within and outside of her department has created an awareness of possible resources that she can use.

Participant A feels that even though she takes advantage of available resources as much as possible through informal networking, learning opportunities would be enhanced if the school and the university administration normally endorsed such sharing of resources. She reflected that on most occasions requests for use of resources within and outside the university are curtailed rather than enhanced by administrators.

Even though she is not satisfied with the formal methods of allocation of resources, she stated that she and other faculty members are constantly seeking new ways to get the resources they want. With these resources, she will be able to come closer to achieving the goals of her department and school.

A organizes the content of her courses sequentially and thematically. She begins her course with easy material that she feels all of her

students know, then proceeds to more difficult conceptual material that enables her and her students to reach certain course goals. This researcher observed a high degree of student interaction and participation in class discussions. For example, during one class session as soon as she introduced and explained the topic of discussion, several students contributed to the discussion. During the course of the discussion some of the students were talking among themselves for short spans of time about possible explanations for the topic of discussion. A did not feel threatened by the interaction among the students. Students from almost every one of these small informal groups later stated before the whole class their ideas about the best solution for the problems discussed.

She stated that availability of additional resources would affect how she organized what she taught in her classes. She reported that "graders would enable me to give more homework and practice sets; an additional teacher in this area would reduce the number of students per class and enable me to provide more individualized instruction; and more experiential learning would be provided by on-site visits; availability of computer resources would enable more hands-on computer work."

A stated that her evaluation methods give her and her students satisfactory feedback about what they learn in her classes. Her evaluation methods include exams, homework, practice sets, individual conferences, and classroom observations.

The relationship between A and her colleagues is characterized by the CI decision method on the Vroom and Yetton model (See Appendix B). She typically shares problems and concerns with her colleagues individually.

She welcomes their suggestions and ideas. Then she makes a decision which may or may not necessarily reflect their influence.

Overall Participant A was observed to be at the refinement level (Level IV B) on the LoU scale. She uses and shares resources with other departments within the university and is quick to acknowledge that use of these resources has resulted in better teaching.

Even though A is overall at the refinement level, she is barely above the routine (IV A) level in the acquiring information category. She knows and projects the cognitive and affective effects of shared resources on students. But, because her earlier efforts to formally acquire additional resources were repeatedly curtailed, she now basically acquires additional resources only through channels which require minimun effort and stress. Interdepartmental information and materials are focused on how to improve student learning. She is willing to share and discuss materials and ideas that will help colleagues effectively teach students. Thus she operates at the refinement level in the remaining six categories on the LoU scale.

Synopsis of Participant B

Participant B is a faculty member in the School of Arts and Sciences and is active on several departmental, school, and university committees. She feels that the acquaintances and professional working relationships established through work on the committees have broadened her understanding and awareness of the availability and allocation of resources on the campus.

B is satisfied that she provides learning opportunities for her students. Yet, she feels that availability of some of the material resources in other departments, such as computer terminals and communication labs, would help her and other faculty in her department to provide better learning opportunities for students. She stated that she does not have enough time to teach her students all of the prerequisite skills they need to meet the course goals. Audiovisual aids used in the computer and communication laboratories would provide students help in those skills and allow her extra time to teach the regular content of her courses.

Participant B organizes her courses both sequentially and thematically, depending on the subject. Access to additional resources would affect how she organized her courses to a limited degree. Additional resources would also affect the content of her courses. Instead of beginning with the basic skills, she would be able to concentrate on the advanced skills designed to be taught in the course.

B evaluates her students through observation in class and feedback from weekly papers that they turn in to her. She feels that these evaluation methods provide her students with a fairly accurate idea of the content they are learning in her courses. She believes that these same methods, in addition to the student evaluation form that is filled out at the end of the semester, provide her with a fairly accurate idea about what her students have learned in her classes.

B is in agreement with her departmental and school goals; she thinks "they are worthy goals", but she feels she can achieve those goals "only to the degree that the students are prepared to work on the

expected level" of the courses that they have enrolled. In spite of feeling she is not presently achieving departmental or school goals, she on several occasions emphasized that she is doing the best teaching that she can. This sentiment has been reflected by student responses on evaluation forms.

Because B is intent on constantly improving her teaching methods and what her students learn, she has gone outside of her department to acquire human and material resources, such as materials in the form of handouts, records, films, and other audiovisuals as well as speakers.

B believes that there are some positive and negative results of sharing resources on the campus. Positive results have included becoming acquainted with several other persons who are willing to share resources and include her as a part of their networks and improving teacher methodology through the sharing of ideas, materials, and the like. She believes that a negative result is that a few "persons take credit for contributions and materials" that others have made. Still, she believes that the good which comes out of sharing human and material resources far outweigh any negative results as evidenced by the fact that most persons continue to share; in the future they will simply exclude those few persons who abuse the networking system.

B's relationship with her colleagues is characterized by the GI and the GII decision methods on the Vroom and Yetton model (See Appendix B). She has a tendency to share her professional problems and concerns with her colleagues. Then she and her colleagues analyze the problems or concerns and collectively arrive at solutions that they feel are beneficial for the students.

B basically operates at Level V (integration) on the Level of Use Scale. She not only has extensive networks which she uses to participate in interdepartmental sharing, but she, on many occasions, seeks to collaborate and work as a team with her colleagues on student oriented projects.

Synopsis of Participant C

Participant C is a dean in the School of Business. He is regarded by other educators at the university as an agressive leader who is protective of his faculty and their resource needs.

C indicated that he is satisfied that the professors within his school "have instructional performances consistent with the needs of the students". In addition he believed that his professors recognize the overall expectations of the business professions and they attempt to help their students meet those expectations.

Even though C is satisfied with the learning opportunities his teachers provide for students in the School of Business, he believes that if some of the resources of other departments and schools were shared with the School of Business better learning opportunities would be provided for business students. He feels that shared resources would "reduce the need for duplication of resources, and also maximize utilization of resources. It also frees other resources (funds) to do other things". C further observed that an obstacle to sharing resources between schools on campus as well as between departments within the School of Business is the "protection of turf; a survival tactic". If teachers and administrators felt less protective of their resources, they would be willing to share rather than duplicate what few resources they have.

C believes that the extent to which students learn and retain the content of the business courses varies. It depends upon several factors such as the course level--they tend to retain more in the upper level courses; and the teaching style--professors who tend to be innovative and use supplemental materials and assignments have students who learn and retain more content in their courses than those teachers who simply repeat the content of the course text.

Most professors in C's school organized their courses sequentially. He believes they begin with major course objectives. Next, they define and clarify all resources facilitating reaching those course objectives. Finally, they develop presentations guided by their course outline. C believes that additional sharing of resources within the university would affect how professors in the School of Business organize their course only to a limited extent because they already have access to outside resources.

C also believes that the amount of basically accurate feedback that teachers get from students varies according to the consistency between what was learned and the evaluation tools. Overall he believes that the evaluation methods used by his faculty give them and their students some indication of what they have learned, but "to say that your method is accurate is giving oneself too much credit. It's very difficult to come up with an evaluation method that is accurate for everybody".

C agrees with the goals for the school and the departments within it. He feels very positive about the degree that the school is capable of reaching those goals. He believes that the school is moving steadily toward achieving those goals because of the commitment of his faculty.

Presently, C is not satisfied with the methods for acquiring resources. He believes there are too many "unnecessary delays, restrictive clauses in state contracts, and cumbersome purchasing process delays" which curtails maximum use of resources.

C has acquired resources outside of his school. Most of the acquired resources have come from outside of the university. He is aware of several persons in the university who have shared resources with others within the university. He also stated that he would encourage his chairpersons and faculty members to share their resources with each other because he believes it would (1) reduce duplication of resources; (2) encourage use of under-utilized materials and persons; (3) increase cooperation, awareness, and trust among members of the school and the university; and (4) reduce the element of turf ownership.

C is autocratic in his relationship with the faculty in his school. His decision methods are characterized by the AI and AII decision methods on the Vroom and Yetton model (See Appendix B).

Overall, C is at Level IV B (refinement) on the Level of Use scale. His conversations and actions indicate that he is aware of the cognitive and affective effects of interdepartmental sharing of resources on students and teachers. C operates at the IV A (routine) level in the Status Reporting and Performing primarily because of his authoritarian leadership style.

Synopsis of Participant D

Participant D is a dean in the School of Education. He has been employed at the university as a faculty member and department chairperson,

and was appointed dean this year. In his conversations, D primarily relates his experiences as a dean but reflects on certain issues from the viewpoint of a faculty person and a departmental chairperson. Because some issues, such as inadequate resources, have not changed significantly from the time he was a faculty member, he shows deep empathy for faculty and chairpersons' points of view.

D stated that he is somewhat satisfied with the types of learning opportunities that are provided for students in the School of Education. While he believes that the learning opportunities are adequate, they would be better if they were focused on the needs of society today as opposed to society's needs two decades ago. For example, the learning opportunities are not focused on the needs of persons in a technological society, but are still geared to an agrarian society. D believes that "more cooperative interdepartmental programs" would enhance the learning opportunities of students in the School of Education, particularly in departments such as sociology, political science, biology, and physics.

Based upon follow-up on how well former students perform professionally, D believes students in the School of Education, particularly in the department in which he recently taught, were "quite successful" in retaining and applying concepts taught in their classes. Overall, he is not aware of how all of the courses in the school are organized, but his and several other professors' classes are organized sequentially. D related that he first determines the needs of the students by administering a pretest geared to a level of competencies that he feels they should have at that time. Next, he develops a syllabus based upon the results of the pretests and what students say they want to learn. Finally,

he develops goals and objectives for the class based upon the above steps plus state requirements or competencies concerning what students in that area should know. Availability of additional resources would affect how he and other professors teach classes. For example, in the class he taught he would use computer terminals to help teach budgeting and finance. He believes personnel from other departments and in the education community would help. For example, school administrators and teachers from the community could come in and lead discussions on budgeting and finance.

D believes that the evaluation methods used by teachers in the school basically give teachers and students accurate feedback about what students have learned in the courses. He feels that evaluation should be based upon how well students meet the objectives of courses, especially if the students help design the course and set objectives.

D agrees with the goals of the School of Education. His one criticism of those goals is that they should be updated and expanded to include a general education component. Students should come out of the education program with ideas about how to improve themselves as persons, not just skills on how to teach.

D believes that the degree to which educators can achieve those school goals depend to an extent on their staff-position. D stated, "given the restraints of faculty members, they are capable of achieving those goals to a lesser degree than an administrator." He believes that administrators place too many formal restraints upon faculty members.

In D's attempt to achieve the school's stated goals, he has made several attempts to formally and informally acquire human and material resources. They include cooperating with faculty from other schools, cooperating with other faculty and administrators in the university to exchange ideas, collaborating with other faculty to obtain grants, and bringing in guest speakers for his classes. He is aware of several other persons in the school of education who make similar efforts.

D shares the problems and concerns of the School of Education with his subordinates. His decisions about those problems and concerns may or may not reflect his subordinates' influence. His decision methods are similar to the CI method on the Vroom and Yetton model (See Appendix B).

Participant D primarily operates at the refinement (IV B) level on the Level of Use scale even though there are several categories in which he is at the routine (IV A) level. He is knowledgeable about the effects of interdepartmental sharing of resources and attempts to acquire them. Yet, his assessing, planning, and performing in the use of resources do not reflect his efforts to acquire the additional resources.

Synopsis of Participant E

Participant E is dean of the School of Arts and Sciences. E is regarded by several of his chairpersons and faculty as a firm but fair and open-minded individual who is nonautocratic in his relationships with educators in the School of Arts and Sciences.

E maintains that he is satisfied with the types of learning opportunities provided for students in the School of Arts and Sciences. He stated that "there are some things we are doing right and some that we

should be doing differently." He is quick to assure the researcher that his satisfaction with learning opportunities does not imply that the school has all the answers. The diversity of the many areas in the School of Arts and Sciences makes it difficult for him to say how much better learning opportunities would be provided for students if there were additional resources available. He stated that areas such as the humanities would definitely profit from additional resources. There is a limited amount of shared human resources that occurs within the school and with other schools. For example, some faculty from Arts and Sciences teach methods courses in the School of Education and a faculty member teaches courses in the history and English departments. E would like to see more interdepartmental sharing of equipment. He says the school could certainly benefit from this. His opinion about sharing equipment was reinforced by the regular flow of faculty from several departments in the building who came in to use the copying machine.

E believes that overall, the evaluation methods used by the School of Arts and Sciences give a limited amount of feedback to students and teachers about what they are learning in the courses. It depends on the instruments used by the teachers.

E believes that the courses in the school are basically organized sequentially, especially in lower level and science courses. He does not believe additional resources would change the basic organization of the course in Arts and Sciences. He says that additional human resources would perhaps make a difference.

E totally supports the goals of the School of Arts and Sciences. He feels the school is doing well in achieving those goals as officially written.

E has made attempts to acquire additional material resources on his own, but those attempts have not been extensive. In terms of encouraging the use of human resources interdepartmentally, he feels that few departments have persons available to loan to another department. The course loads of faculty also makes it difficult to accept additional projects in other school departments. He is aware of several persons in the school who have informally gone outside of their departments for material resources such as equipment.

E believes that some realistic and positive results can arise from the sharing of resources in the university. More specifically E feels that there should be (1) cooperation between the department of mathematics and the School of Engineering, (2) cooperation between the School of Education and Arts and Sciences, and (3) availability of the computer center for all university departments.

E is not satisfied with present methods for getting resources. He is making efforts to write proposals for external support to supplement existing resources.

E's relationship with his subordinates is consultative. His decision methods are characterized by CI decision processes on the Vroom and Yetton model (See Appendix B).

Participant E is at the refinement (IV B) level on the Level of Use scale. He is cognizant of the benefits of sharing resources inter-

departmentally. He also believes that the departments in his schools are making satisfactory progress using the existing resources even though he prefers acquiring additional resources to benefit students and faculty development.

Synopsis of Participant F

Participant F is a departmental chairperson in the School of Arts and Sciences. She is nonautocratic in her dealings with her faculty, and has good rapport with her students and faculty.

F is satisfied with some of the learning opportunities provided for her students in some courses. For example, in the communication courses, the university's radio station and newspaper and theater provide learning opportunities in addition to what students learn in the classroom. The teacher education program provides students the opportunity to observe and work with teachers in class settings. The only area with which she is not satisfied is speech pathology. Even though the in-class coverage of content is comprehensive, she would like the students to receive more clinical experience than they now get.

F feels that additional resources would help provide learning opportunities for her students, particularly in speech. Availability of human resources would reduce class sizes. Additional resources would also affect the organization of what is taught in several classes within the department. For example, in speech pathology the classes are basically lecture. However, a functioning laboratory in voice and diction would change the present format of the classes.

F believes that the present evaluation methods give students and teachers accurate feedback. As an example, she cites her video tapes of students' oral assignments as one evaluation method. Both she and the student review and discuss the video-taped assignment together.

F is in total agreement with the goals of her department. Though they are doing well in most areas, she believes that they will definitely need more human resources in order to meet those goals. She basically agrees with the goals of the School of Arts and Sciences except for the fact that nothing is stated about the need for students to develop the ability to communicate the analytical and critical thoughts that the schol hopes students will develop. Again, she feels that she could better reach those goals if she had at least one more faculty person.

F attempts to acquire resources outside her department on her own. She and her faculty have received grants from sources outside the university to aid instruction in the speech courses. With the grants they have been able to develop teaching materials, bring in speakers, and take groups of students on field trips. Also, resources from the grants have been allocated for faculty development, which includes trips to professional meetings.

F knows of several persons who have written proposals for outside resources. She is also aware of persons who share resources within the university. The School of Arts and Sciences calendar cites learning activities that occur. She mentions other instances of sharing resources such as (1) an occasion when another department invited her students to join a club that it sponsored; (2) a student from the home economics department works with the theater costume designer; (3) she recently

invited some students from the elementary education, reading, sociology, and social work departments to join some of her students on an educational field trip for clinical exposure; and (4) she along with chairpersons from the foreign language, biology, and accounting departments agreed to share a van when recruiting students.

F is not satisfied with the present methods for acquiring resources. State and university funds allocated to her department are not sufficient. According to her, grants and interdepartmental sharing are the sources of additional resources. F states that interdepartmental sharing of resources "enables another department to be exposed to and gain knowledge from an activity they could not otherwise afford", saves money, provides more learning opportunities for students, and brings departments closer together.

F's relationship with her subordinates is characterized by the GI and GII decision methods on the Vroom and Yetton model (See Appendix B). She shares the problems and concerns of her department with her subordinates. Together they attempt to arrive at solutions that are agreeable to the group.

Participant F's actions and conversations indicate that she feels a high degree of teacher efficacy. They also indicate that she is overall at level V (integration) on the Level of Use scale because she consciously acts in manners which indicate that she collaborates with others about the positive impact of sharing resources.

Synopsis of Participant G

Participant G is a departmental chairperson in the School of Education. He is a determined but relaxed and informal individual who is

not only concerned about the welfare of his department, but constantly makes one aware that he is a dreamer about positive attributes that can be attained by his department and the School of Education. He is working toward fulfilling those dreams by actions such as circulating written and verbal communications to the school's dean and to some faculty members about some positive aspects of the courses taught in his department. Most of what he reports in his communications as positive are primarily those attributes cited by students as being helpful and satisfying. For example, the students find that tape recordings of his lectures that have been placed on file in the media center are very helpful.

G is fairly satisfied that the learning opportunities provided for students by his department will sufficiently help them to learn and retain the content of their courses. He believes that because lectures are the primary mode of presentation for most classes, the lectures should be justified by and reinforced by software such as tape recordings for students who need to listen to the presentations a second time, supplemental readings, and the like. He also believes that additional human resources and on-the-field real life experiences would help students learn because: (1) collaboration of ideas gives students a well rounded idea of the topics discussed; (2) actual experiences help students determine if they genuinely want to continue in a particular area of study; and (3) the resources help reinforce knowledge to which they have been previously exposed.

G believes that his department's evaluation methods give him, his faculty, and students accurate feedback about what the students have

learned in their courses. He believes that students should be tested to see if they have met the stated objectives of a course.

G believes there should be a justifiable rationale for what is taught in courses. Courses should basically follow a sequential mode of organization. Courses should also be structured in a manner which encourages analytical and critical thinking skills.

G is in agreement with departmental and school goals. He stated that his department achieves approximately 80 percent of its goals. It would probably come closer to achieving them if there were more resources. He believes that his department achieves about 60 percent of the school's goals because of the lack of resources.

G consults the faculty in his department about curricular decisions. His decisions may or may not reflect their influence. His overall leadership style is characterized by the CI decision methods on the Vroom and Yetton model (See Appendix B).

Participant G basically operates on level IV A (routine) on the Level of Use scale. He basically wants more of resources he presently uses. He would like other departments in his school to use resources in a manner similar to that which he does.

Synopsis of Participant H

Participant H is faculty member in the School of Education. She acknowledges her reputation among students as a strict disciplinarian with rigid standards for achievement.

H believes that she provides her students with the necessary learning opportunities to help them learn and retain the content of her

courses. She believes that time is the primary resource that she needs. She would like to have one credit hour added to the two credit hours courses that she teaches. She feels that the additional time created by the extra credit hour would enable her to be more innovative in her presentations and would encourage her to bring in more persons (human resources) and ideas to reinforce her lectures.

H organizes the first portion of her courses sequentially to provide a foundation for topics discussed in the latter portion of the course. The latter portion of the course is organized thematically around topics such as law, philosophy, religion, and the like.

H believes that her evaluation methods give her and her students accurate feedback about what they are learning. Her formal evaluations are exams. She also uses observations and interactions in class and individual conferences for feedback on student learning.

H agrees with the stated goals of her department and school. She feels basically confident that she and others in her department could come close to achieving those goals.

H reports that she has engaged in interdepartmental sharing of human resources. She has invited speakers to speak on certain topics in her classes. Her use of speakers from within the university is sometimes curtailed because of lack of time in her classes and because of heavy teaching loads of faculty who would otherwise be willing to speak on certain topics in her classes.

H is aware of a few other persons who share interdepartmentally. These same persons also have a tendency to seek resources outside the university. She believes that sharing human resources interdepartmentally

has and will continue to yield positive results. Overall, she is satisfied with the present methods of obtaining resources within the university.

H has an autocratic leadership style. She attempts to make decisions by herself, using information available to her at that time. When she requests additional necessary information about a curricular problem from her colleagues, her decision may or may not reflect their influence. Thus her leadership style is characterized by the AI and AII decision methods on the Vroom and Yetton model (See Appendix B).

Participant H is at the routine (IV A) level on the Level of Use scale. She does a limited amount of sharing resources and she is aware of its benefits. However, she does not aggressively seek to share or acquire additional resources. This may be because she generally feels efficacious about her present teaching.

Synopsis of Participant I

Participant I is a chairperson in the School of Business. He is regarded by colleagues and students as fair and nonautocratic. He has good rapport with them.

Participant I is satisfied that he and faculty members in his department provide the types of learning opportunities that help students learn and retain the content of their courses. He believes that additional material resources, such as microcomputers, would provide better learning opportunities for the students.

I believes that students learn and retain most of the content in their courses. The basis for this belief is the feedback from the students and from faculty who teach the students in follow-up courses during subsequent semesters.

The courses in I's department are organized sequentially. The faculty begins with teaching basic skills in the area. Subsequent lessons are based upon those basic skills. The content in the upper level courses is based upon prerequisite courses.

I's formal evaluation methods include exams, quizzes, and practice sets. His informal evaluation methods include feedback from homework, observations, classroom interaction with students and individual conferences. I stated that his faculty uses similar evaluation methods. He believes that these formal and informal methods provide faculty and students ample feedback about what and how students are learning.

Participant I is in agreement with departmental and school goals. He believes his department is close to achieving those goals.

I has gone outside this department to acquire some resources. He also shares departmental resources with other departments. He is "somewhat satisfied" with the present methods for acquiring resources, but feels they could be improved.

I typically consults his colleagues about curricular concerns of his department. Then he makes a decision on the concerns based on whether he believes it is in the students' best interest and if he believes the decision is consistent with the goals of the department and the School of Business. Thus, his leadership style is characterized by the CI and the CII decision methods on the Vroom and Yetton model (See Appendix B).

I is at the refinement (IV B) level on the Level of Use scale. His actions and conversations indicate that he is aware of the positive benefits and approaches to interdepartmental sharing.

Discussion

All three groups of participants are involved in interdepartmental sharing of resources. The three groups of participants also have a sense of teacher efficacy. However, the degree of interdepartmental resource sharing and sense of efficacy differs among the groups of participants from the three schools in the university.

The participants in the School of Arts and Sciences experience a higher degree of interdepartmental sharing of resources than participants in the School of Business and in the School of Education. The faculty member and chairperson are both at Level V on the Hall and Loucks Level of Use (LoU) scale. The Arts and Sciences dean is at the IV B level on the LoU Scale.

As a group, the participants in the School of Arts and Sciences appear to have a higher sense of teacher efficacy than those participants in the School of Business. They definitely have a higher sense of efficacy than the group of participants observed in the School of Education.

All of the participants from the School of Business are at the IV B Level of Use Scale. Therefore, overall they are assessed at a slightly lower level of interdepartmental sharing than subjects from the School of Arts and Sciences. The School of Business group of participants also have a slightly lower sense of teacher efficacy. This is basically because the faculty member whose earlier efforts to acquire

TABLE 1

School of Arts and Sciences : Profile on Level of Use Scale *

Levels of Use	Categories						
	Knowledge	Acquiring Information	Sharing	Assessing	Planning	Status Reporting	Performing
Level 0							
Level I							
Level II							
Level III							
Level IV A							E
Level IV B	E	E		B	B, E	E	F
Level V	B, F	B, F	B, E, F	E, F	F	B, F	B
Level VI							

*See Appendix A for a description and definition of each level and categories.

TABLE 2

School of Arts and Sciences : Sense of Teacher Efficacy in Eight Dimensions of Curriculum Planning *

	High	Moderate	Low
Goals and Priorities	E, F	B	
Content of Curriculum	E, F	B	
Types of Learning Opportunities	B	E, F	
Organization of Learning Opportunities	B, E, F		
Organization of Content Areas	B, E, F		
Mode of Presentation	B, E, F		
Mode of Response	B, E, F		
Type of Evaluation Procedures	B, E, F		

*See Chapter I for an explanation of these eight dimensions of curriculum planning.

TABLE 3

School of Business : Profile on Level of Use Scale *

Levels of Use	Categories						
	Knowledge	Acquiring Information	Sharing	Assessing	Planning	Status Reporting	Performing
Level 0							
Level I							
Level II							
Level III							
Level IV A		A				C	C
Level IV B	A, C, I	C, I	A, C, I	A, C, I	A, C, I	A, I	A, I
Level V							
Level VI							

*See Appendix A for a description and definition of each level and categories.

TABLE 4

School of Business : Sense of Teacher Efficacy in Eight Dimensions of Curriculum Planning *

	High	Moderate	Low
Goals and Priorities	I	A, C	
Content of Curriculum	A, C, I		
Types of Learning Opportunities	C, I	A	
Organization of Learning Opportunities	A, C, I		
Organization of Content Areas	C, I	A	
Mode of Presentation	A, C, I		
Mode of Response	A, C, I		
Type of Evaluation Procedures	A, C, I		

*See Chapter I for an explanation of these eight dimensions of curriculum planning.

TABLE 5

School of Education : Profile on Level of Use Scale *

Levels of Use	Categories						
	Knowledge	Acquiring Information	Sharing	Assessing	Planning	Status Reporting	Performing
Level 0							
Level I							
Level II							
Level III							
Level IV A		G	G, H	D, G, H	D, G, H	G, H	D, G, H
Level IV B	D, G, H	D, H	D			D	
Level V							
Level VI							

*See Appendix A for a description and definition of each level and categories.

TABLE 6

School of Education : Sense of Teacher Efficacy in Eight Dimensions of Curriculum Planning *

	High	Moderate	Low
Goals and Priorities	H	D, G	
Content of Curriculum	G, H	D	
Types of Learning Opportunities		D, G, H	
Organization of Learning Opportunities	D, G, H		
Organization of Content Areas	D, G, H		
Mode of Presentation	G, H	D	
Mode of Response	G, H	D	
Type of Evaluation Procedures	D, G, H		

*See Chapter I for an explanation of these eight dimensions of curriculum planning.

TABLE 7

Faculty Members : Profile on Level of Use Scale *

Levels of Use	Categories						
	Knowledge	Acquiring Information	Sharing	Assessing	Planning	Status Reporting	Performing
Level 0							
Level I							
Level II							
Level III							
Level IV A		X	X	X	X	X	X
Level IV B	XX	X	X	XX	XX	X	X
Level V	X	X	X			X	X
Level VI							

*See Appendix A for a description and definition of each level and categories.

TABLE 8

Faculty Members : Sense of Teacher Efficacy in Eight Dimensions of Curriculum Planning *

	High	Moderate	Low
Goals and Priorities	X	XX	
Content of Curriculum	XX	X	
Types of Learning Opportunities	X	XX	
Organization of Learning Opportunities	XX	X	
Organization of Content Areas	XX	X	
Mode of Presentation	XXX		
Mode of Response	XXX		
Type of Evaluation Procedures	XXX		

*See Chapter I for an explanation of these eight dimensions of curriculum planning.

TABLE 9

Departmental Chairpersons : Profile on Level of Use Scale *

Levels of Use	Categories						
	Knowledge	Acquiring Information	Sharing	Assessing	Planning	Status Reporting	Performing
Level 0							
Level I							
Level II							
Level III							
Level IV A		X	X	X	X	X	X
Level IV B	XX	X	X	X	X	X	XX
Level V	X	X	X	X	X	X	
Level VI							

*See Appendix A for a description and definition of each level and categories.

TABLE 10

Departmental Chairpersons: Sense of Teacher Efficacy in Eight Dimensions of Curriculum Planning *

	High	Moderate	Low
Goals and Priorities	XX	X	
Content of Curriculum	XXX		
Types of Learning Opportunities	XX	X	
Organization of Learning Opportunities	XX	X	
Organization of Content Areas	XXX		
Mode of Presentation	XXX		
Mode of Response	XXX		
Type of Evaluation Procedures	XXX		

*See Chapter I for an explanation of these eight dimensions of curriculum planning.

TABLE 11

School Deans : Profile on Level of Use Scale *

Levels of Use / Categories	Knowledge	Acquiring Information	Sharing	Assessing	Planning	Status Reporting	Performing
Level 0							
Level I							
Level II							
Level III							
Level IV A				X	X	X	XXX
Level IV B	XXX	XXX	XX	X	XX	XX	
Level V			X	X			
Level VI							

*See Appendix A for a description and definition of each level and categories.

TABLE 12

School Deans : Sense of Teacher Efficacy in

Eight Dimensions of Curriculum Planning *

	High	Moderate	Low
Goals and Priorities		XX	
Content of Curriculum	X	X	
Types of Learning Opportunities	X	X	
Organization of Learning Opportunities	XX		
Organization of Content Areas	XX		
Mode of Presentation	X	X	
Mode of Response	X	X	
Type of Evaluation Procedures	X	X	

*See Chapter I for an explanation of these eight dimensions of curriculum planning.

additional resources were curtailed by administrators no longer aggressively seeking resources. Her present disposition has apparently lowered her sense of efficacy even though her students and peers regard her as a knowledgeable and effective teacher. The overall sense of teacher efficacy by the subjects in the School of Business was also slightly lower than that of the subjects in Arts and Sciences basically because the feelings of the above mentioned faculty member in the School of Business.

The subjects observed in the School of Education, overall, are less active in interdepartmental sharing than the subjects in the School of Business and in the Schools of Arts and Sciences. They also have a lower sense of teacher efficacy than the other subjects.

All nine subjects involved in this study were rated as having either a high or moderate sense of teacher efficacy in eight dimensions of curriculum planning. None of the nine subjects scored in the low category. The subjects in the School of Education were observed to have a moderate sense of efficacy in more dimensions of curriculum than the other two groups.

The deans from all three schools were at the refinement (IV B) level on the Hall and Loucks Level of Use Scale. They are all aware of the positive results of interdepartmental sharing. They have made some innovative attempts to refine interdepartmental sharing to increase student learning. However, none expressed nor were observed to actively integrate their efforts with those of other school deans. The sense of teacher efficacy was high for the deans in the School of Arts and Sciences and the School of Business. It was moderate for the dean in the

School of Education. This may be because that dean has not yet been in his position for one year. He feels that he has inherited several situations that he would like to improve. The two other deans have been in their positions for longer periods of time and the situations in their schools basically reflect their philosophy and goals.

The chairpersons are at the integration (V), refinement (IV B), and routine (IV A) levels of interdepartmental sharing on the LoU Scale. Overall, they have a high sense of teacher efficacy. However, the chairperson at the routine (IV A) Level of Use had a moderate sense of teacher efficacy in more areas than the other two.

The three faculty members are at the integration (V), refinement (IV B), and routine (IV A) levels of interdepartmental sharing. The faculty were at the same levels of sharing as the chairpersons from their respective schools. The faculty at levels routine (IV A) and integration (V) have a higher sense of efficacy than the faculty at the refinement (IV B) level. This is possibly because Participant H (at the A level) basically had access to most of the resources she wanted. These resources were there when she accepted her position. Secondly, Participant A, the faculty member at the refinement (IV B) level, is perceived by students and peers as vastly more efficacious than he perceives himself.

When one looks at the overall patterns formed by the individual participants, the participants grouped by schools, and by staff position, it appears that participants who share interdepartmentally to a greater degree also tend to have a greater sense of efficacy.

There were also certain patterns which emerged when leadership style and degree of interdepartmental sharing was viewed. The two parti-

cipants with the highest degree of sharing are at the GI level on the Vroom and Yetton Scale on leadership styles. Five of the six subjects at the refinement (IV B) level of interdepartmental sharing also have a CI leadership style. The sixth participant has an autocratic leadership style. This may be because he does not seek resources from other schools or departments, but basically he shares his resources with them.

Summary of the Chapter

Chapter Four presented a description of a case study conducted on the campus of a small North Carolina university. The researcher presented background information about the setting and about the nine participants in the study. This information was followed by a synopsis of each participant's degree of resource sharing, sense of teacher efficacy, and leadership style.

The case study revealed that all nine participants are involved in resource sharing. It also revealed that the degree of interdepartmental resource sharing and sense of efficacy differs among the participants.

As a group, participants from the School of Arts and Sciences appear to experience a higher level of interdepartmental resource sharing and a higher sense of teacher efficacy then the participants from the two other schools involved in the study. The three deans in the study are at the Refinement Level of Use on the Hall and Loucks Level of Use Scale. The chairpersons and faculty members are at different levels of resource sharing.

Overall, participants who experience higher degrees of resource sharing tend to have a higher sense of teacher efficacy and tend to have a more democratic leadership style than participants who experience less resource sharing.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS FOR FURTHER STUDY

This chapter will present a summary of this study on interdepartmental cooperation in a small university. It will also present the conclusions that were drawn from the findings of the study and recommendations for further study.

Summary

The major purposes of this study were (1) to examine the extent of formal and informal interdepartmental sharing of resources in a small university setting, and (2) to examine the extent to which academic personnel perceive a higher degree of efficacy while engaged in formal and informal interdepartmental sharing of resources in a small university setting.

The significance of this study is based on the fact that there are limited resources available and interdepartmental sharing is a logical solution to the problem of limited resources in the small university. Specifically, the researcher attempted to establish that (1) interdepartmental sharing occurs, and (2) a relationship between interdepartmental sharing of resources and teacher efficacy does exist.

The literature review provided an examination of curriculum planning models that currently influence curriculum planners' frames of

reference, needed considerations for any curriculum planning model, teacher efficacy, and interdepartmental sharing of resources in the university setting.

The literature review also provided a basis for assessing assumptions about curriculum that were presented in the study as well as certain realities that curriculum planners must consider before attempting to create a new model or adapt an existing one for their setting. In addition, it provided evidence that indicated a relationship between teacher efficacy and interdepartmental sharing of resources in the university setting.

The research procedure used in the study was the case study method. Data were collected primarily through observations and interviews with the subjects. The subjects included one dean, one chairperson, and one faculty person each from three schools within the university. The Hall and Loucks Level of Use Model was used to measure the extent of formal and informal interdepartmental sharing. The Vroom and Yetton Model, a taxonomy of decision processes and leadership styles that are applied to group and individual problems, was used to examine any correlations between certain leadership styles and the degree of interdepartmental sharing of resources as measured by the Hall and Loucks Level of Use Scale.

The extent to which the subjects perceived a higher degree of efficacy while engaged in interdepartmental resource sharing was defined as the extent to which they felt a sense of internal control in the use of eight dimensions of curriculum planning. Data for examining the degree

of efficacy in the eight dimensions were collected through observations and interviews focusing on those behaviors representing those that have been identified as indicators of efficacy in those dimensions of curriculum planning. Their extent of resource sharing and sense of teacher efficacy would be examined individually, within each of the schools, and within the three levels of the educational staff.

One purpose of the study was to examine the extent of formal and informal interdepartmental resource sharing in a small university setting. The nine participants in this study were aware of the short-term and long-term benefits of interdepartmental resource sharing. Five of the participants actively sought additional resources and innovative ways to use the resources they have. Two of the participants were involved with interdepartmental resource sharing in a routinized pattern. The two remaining participants have gone beyond the point of their colleagues' interdepartmental sharing of resources. They initiated changes in the use and acquisition of interdepartmental resources based upon coordination of input from colleagues.

The second purpose of the study was to examine the extent to which academic personnel perceive a higher degree of efficacy while engaged in formal and informal resource sharing in a small university setting. Participants who are engaged in interdepartmental resource sharing to a higher degree tend to perceive a higher sense of teacher efficacy. Participants in the School of Arts and Sciences experienced a higher level of interdepartmental resource sharing than those in the School of Business and in the School of Education. They also had a higher sense of teacher efficacy than the participants from the other two schools.

Participants from the School of Education, overall, experienced less interdepartmental resource sharing than the subjects from the School of Arts and Sciences and the School of Business. They also appeared to have a lower sense of teacher efficacy than those from the Schools of Arts and Sciences and Business.

The three deans were at the same level of interdepartmental sharing. The sense of teacher efficacy was high for the deans from the School of Arts and Sciences and the School of Business. The dean in the School of Education had moderate sense of efficacy. This lower sense of teacher efficacy may exist because the dean in the School of Education held his position for only one year. He inherited several situations which didnot reflect his philosophy and which he would like to improve. The two other deans had held their positions for longer periods of time and the situations in their schools basically reflected their philosophy and goals.

The chairpersons experienced different degrees of interdepartmental sharing. Those who experienced a higher degree of sharing had a higher sense of teacher efficacy than the chairperson who experienced less sharing of resources.

Data on the three faculty members did not follow the pattern established by the school deans and chairpersons. The faculty who were evaluated as experiencing higher degrees of interdepartmental sharing did not always perceive a higher sense of teacher efficacy. In this group, the faculty members with the highest and the lowest degrees of sharing had a higher sense of teacher efficacy. The faculty member

with the lowest level of interdepartmental resource sharing had a higher sense of teacher efficacy than the faculty member who was evaluated as experiencing a higher level of interdepartmental sharing. The researcher attributes this occurrence to the fact that the faculty member had access to most of the resources she wanted when she assumed her position.

The findings that interdepartmental sharing of human and material resources did exist in the small university setting were consistent with previous studies on that subject. The findings indicating a relationship between interdepartmental resource sharing and an increased sense of teacher efficacy were also consistent with previous studies in those two areas.

Conclusions

Based on the findings of this case study of a small North Carolina university, the major conclusions of this study are as follows:

1. Formalistic inquiries into the theories of curriculum planning, resource sharing, and teacher efficacy should be coupled with inquiry into case studies of actual implementation in the school setting.
2. Interdepartmental resource sharing does exist in the small university setting.
3. Interdepartmental sharing of human and material resources is a viable and workable solution to limited resources in the small university setting.
4. There is a relationship between interdepartmental resource sharing and an educator's sense of teacher efficacy.

Recommendations for Further Study

1. This study is considered exploratory in nature. There is a need for replication of the study across additional small universities.
2. The influence of an administrator's leadership style upon a faculty's sense of teacher efficacy should be investigated.
3. A similar study should be conducted to investigate the degree to which an administrator's overt encouragement of shared resources affects the utilization of limited resources.
4. The relationship between the degree of interdepartmental sharing and the sense of teacher efficacy within one department in a small university should be investigated. Faculty within one department have the same amount and kinds of resources available. One could investigate the relationship between sense of teacher efficacy and resource sharing of persons with the same amount of resources.

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APPENDIX A

LEVEL OF USE SCALE

APPENDIX A

FIGURE I — LoU CHART

LEVELS OF USE — SCALE POINT DEFINITIONS OF THE LEVELS OF USE OF THE INNOVATION	CATEGORIES							
	KNOWLEDGE	ACQUIRING INFORMATION	SHARING	ASSESSING	PLANNING	STATUS REPORTING	PERFORMING
Levels of Use are distinct states that represent observably different types of behavior and patterns of innovation use as exhibited by individuals and groups. These levels characterize a user's development in acquiring new skills and varying use of the innovation. Each level encompasses a range of behaviors, but is flanked by a set of identifiable Decision Points. For descriptive purposes, each level is defined by seven categories.	That which the user knows about characteristics of the innovation, how to use it, and consequences of its use. This is cognitive knowledge related to using the innovation, not feelings or attitudes	Solicits information about the innovation in a variety of ways, including questioning resource persons, corresponding with resource agencies, reviewing printed materials, and making visits.	Discusses the innovation with others. Shares plans, ideas, resources, outcomes, and problems related to use of the innovation.	Examines the potential or actual use of the innovation or some aspect of it. This can be a mental assessment or can involve actual collection and analysis of data.	Designs and outlines short- and/or long-range steps to be taken during process of innovation adoption, i.e., aligns resources, schedules activities, meets with others to organize and/or coordinate use of the innovation.	Describes personal stand at the present time in relation to use of the innovation.	Carries out the actions and activities outlined in operationalizing the innovation.
LEVEL 0 NO USE: State in which the user has little or no knowledge of the innovation, no involvement with the innovation, and is doing nothing toward becoming involved	Knows nothing about this or similar innovations or has only very limited general knowledge of efforts to develop innovations in the area	Takes little or no action to solicit information beyond reviewing descriptive information about this or similar innovations when it happens to come to personal attention	Is not communicating with others about the innovation beyond possibly acknowledging that the innovation exists.	Takes no action to analyze the innovation, its characteristics, possible use, or consequences of use	Schedules no time and specifies no steps for the study or use of the innovation.	Reports little or no personal involvement with the innovation.	Takes no discernible action toward learning about or using the innovation. The innovation and/or its accouterments are not present or in use
DECISION POINT A	*Takes action to learn more detailed information about the innovation.*						
LEVEL I ORIENTATION: State in which the user has acquired or is acquiring information about the innovation and/or has explored or is exploring its value orientation and its demands upon user and user system	Knows general information about the innovation such as origin, characteristics, and implementation requirements.	Seeks descriptive material about the innovation. Seeks open-ons and knowledge of others through discussions, visits, or workshops	Discusses the innovation in general terms and/or exchanges descriptive information, *materials or ideas about the innovation* and possible implications of its use	Analyzes and compares materials, content, requirements for use, evaluation *reports*, potential outcomes, strengths and weaknesses for purpose of making a decision about use of the innovation.	Plans to gather necessary information and resources as needed to make a decision for or against use of the innovation.	Reports presently orienting self to what the innovation is and is not.	Explores the innovation and requirements for its use by talking to others about it, reviewing descriptive information and sample materials, attending orientation sessions, and observing others using it.
DECISION POINT B	*Makes a decision to use the innovation by establishing a time to begin*						
LEVEL II PREPARATION: *State in which the user* is preparing for first use of the innovation	*Knows logistical requirements*, necessary resources and timing for initial use of the innovation, and details of initial experiences for clients	Seeks *information and* resources specifically related to preparation for use of the innovation in own setting	Discusses resources needed for initial use of the innovation. Joins others in pre use training and in planning for resources, logistics, schedules, etc., in preparation for first use	Analyzes detailed requirements and available resources for initial use of the innovation	Identifies steps and procedures entailed in obtaining resources and organizing activities and events for initial use of the innovation.	Reports preparing self for initial use of the innovation.	Studies reference materials in depth, organizes resources and logistics schedules and receives skill training in preparation for initial use
DECISION POINT C	*Begins first use of the innovation.*						
LEVEL III MECHANICAL USE: State in which the user focuses most effort on the short-term day to day use of the innovation with little time for reflection. Changes in use are made more to meet user needs than client needs. The user is primarily engaged in a stepwise attempt to master the tasks required to use the innovation, often resulting in disjointed and superficial use	Knows on a day to-day basis the requirements for using the innovation. Is more knowledgeable on short term activities and effects than long range activities and effects of use of the innovation.	Solicits management information about such things as logistics, scheduling techniques and ideas for reducing amount of time and work required of user.	Discusses management and logistical issues related to use of the innovation. Resources and materials are shared for purpose of reducing management, flow and logistical problems *related to use* of the innovation	Examines own use of the innovation with respect to problems of logistics, management, time, schedules, resources, and general reactions of clients.	Plans for organizing and managing resources, activities, and events related primarily to immediate ongoing use of the innovation. Planned for changes address managerial or logistical issues with a short term perspective.	Reports that logistics, time, management, resource organization, etc., are the focus of most personal efforts to use the innovation.	Manages innovation with varying degrees of efficiency. Often lacks anticipation of immediate consequences. The flow of actions in the user and client is often disjointed, uneven and uncertain. When changes are made, they are primarily in response to logistical or organizational problems.
DECISION POINT D-1	*A routine pattern of use is established.*						
LEVEL IV A ROUTINE: Use of the innovation is stabilized. Few if any changes are being made in ongoing use. Little preparation or thought is being given to improving innovation use or its consequences	Knows both short and long term requirements for use and how to use the innovation with minimum effort or stress	Makes no special efforts to seek information as a part of ongoing use of the innovation.	Describes current use of the innovation with little or no reference to ways of changing use.	Limits evaluation activities to those administratively required, with little attention paid to findings for the purpose of changing use.	Plans intermediate and long range actions with little projected variation in how the innovation will be used. Planning focuses on routine use of resources, personnel, etc.	Reports that personal use of the innovation is going along satisfactorily with few if any problems.	Uses the innovation smoothly with minimal management problems, over time there is little variation in pattern of use
DECISION POINT D-2	*Changes use of the innovation based on formal or informal evaluation in order to increase client outcomes*						
LEVEL IV B REFINEMENT: State in which the user varies the use of the innovation to increase the impact on clients within immediate sphere of influence. Variations are based on knowledge of both short- and long term consequences for clients	Knows cognitive and affective effects of the innovation on clients and ways for increasing impact on clients	Solicits information and materials that focus specifically on changing use of the innovation to effect client outcomes	Discusses own methods of modifying use of the innovation to change client outcomes.	Assesses use of the innovation for the purpose of changing current practices *to improve client outcomes.*	Develops intermediate and long-range plans that anticipate possible and needed steps, resources, and events designed to enhance client outcomes	Reports varying use of the innovation in order to change client outcomes.	Explores and experiments with alternative combinations of the innovation with existing practices to maximize client involvement and to optimize client outcomes.
DECISION POINT E	*Initiates changes in use of innovation based on input of and in coordination with what colleagues are doing*						
LEVEL V INTEGRATION: State in which the user is combining own efforts to use the innovation with related activities of colleagues to achieve a collective impact on clients within their common sphere of influence	*Knows how to coordinate own use of the innovation with colleagues to provide a collective impact on clients.*	*Solicits information and opinions* for the purpose of collaborating with others in use of the innovation.	Discusses efforts to increase client impact through collaboration with others on personal use of the innovation	Appraises collaborative use of the innovation in terms of client outcomes and strengths and weaknesses of the integrated effort.	Plans specific actions to coordinate own use of the innovation with others to achieve increased impact on clients.	Reports expending time and energy collaborating with others about integrating own use of the innovation.	Collaborates with others in use of the innovation as a means for expanding the innovation's impact on client. Changes in use are made in coordination with others.
DECISION POINT F	*Begins exploring alternatives to or major modifications of the innovation presently in use*						
LEVEL VI RENEWAL: State in which the user re-evaluates the quality of use of the innovation, seeks major modifications of or alternatives to present innovation to achieve increased impact on clients, examines new developments in the field, and explores new goals for self and the system	Knows of alternatives that could be used to change or replace the present innovation that would improve the quality of outcomes of its use	Seeks information and materials about either innovations as alternatives to the present innovation or for making major *adaptations in the innovation*	Focuses discussions on identification of major alternatives or replacements to the current innovation	Analyzes advantages and disadvantages of major modifications or alternatives to the present innovation.	Plans activities that involve pursuit of alternatives to enhance or replace the innovation.	Reports considering major modifications of or alternatives to present use of the innovation.	Explores other innovations that could be used in combination with or in place of the present innovation in an attempt to develop more effective means achieving client outcomes.

FIGURE I — LoU CHART

APPENDIX B

VROOM AND YETTON SCALE

APPENDIX B

DECISION METHODS FOR GROUP AND INDIVIDUAL PROBLEMS

Group Problems	Individual Problems
AI. You solve the problem or make the decision yourself, using information available to you at the time.	AI. You solve the problem or make the decision by yourself, using information available to you at the time.
AII. You obtain the necessary information from your subordinates, then decide the solution to the problem yourself. You may or may not tell your subordinates what the problem is in getting the information from them. The role played by your subordinates in making the decision is clearly one of providing the necessary information to you, rather than generating or evaluating alternative solutions.	AII. You obtain the necessary information from your subordinates, then decide on the solution to the problem yourself. You may or may not tell the subordinate what the problem is in getting the information from him. His role in making the decision is clearly one of providing the necessary information to you, rather than generating or evaluating alternative solutions.
CI. You share the problem with the relevant subordinates individually, getting their ideas and suggestions without bringing them together as a group. Then you make the decision, which may or may not reflect your subordinates' influence.	CI. You share the problem with your subordinate, getting his ideas and suggestions. Then you make a decision, which may or may not reflect his influence.
CII. You share the problem with your subordinates as a group, obtaining their collective ideas and suggestions. Then you make the decision, which may or may not reflect your subordinates' influence.	GI. You share the problem with your subordinate, and together you analyze the problem and arrive at a mutually agreeable solution.
	DI. You delegate the problem to your subordinate, providing him with any relevant information that you possess, but giving him responsi-

	Group Problems	Individual Problems
GII.	You share the problem with your subordinates as a group. Together you generate and evaluate alternatives and attempt to reach agreement (consensus) on a solution. Your role is much like that of chairman. You do not try to influence the group to adopt "your" solution, and you are willing to accept and implement any solution which has the support of the entire group.	bility for solving the problem by himself. You may or may not request him to tell you what solution he has reached.

APPENDIX C

ORIGINAL QUESTIONS FOR GUIDED INTERVIEW

APPENDIX C

INTERVIEW QUESTIONS ON TEACHER EFFICACY

1. To what degree are you in agreement with the stated goals of the School of _____?

2. To what degree do you feel that you are capable of achieving the stated goals of the School of _____?

3. To what degree are you in agreement with the stated goals of the department of _____?

4. To what degree do you feel that you are capable of achieving the stated goals of the Department of_____?

5. To what extent do you feel that you can get your students to actually learn the content covered in your courses (department, school)?

6. How do you generally organize the content in your courses?

7. Are you satisfied that they types of learning opportunities you are able to provide for your students will sufficiently help them to learn the content of your courses?

8. Do you believe that the evaluation methods accurately measure the content a student has learned in your courses?

APPENDIX D

REVISED QUESTIONS FOR GUIDED INTERVIEW

APPENDIX D

INTERVIEW QUESTIONS ON TEACHER EFFICACY

1. Are you satisfied that the types of learning opportunities you are able to provide for your students will sufficiently help them to learn and retain the content of your courses?

2. Do you feel that if some of the available human and/or material resources in other departments (schools) within the university were shared with your department (school), it would help you provide better learning opportunities for your students?

3. To what extent do you feel that you can get your students to actually learn and retain the content in your courses (department, school)?

4. Generally, how do you organize what you teach in your classes?

5. Would availability of additional resources affect how you organize what you teach in your courses?

6. Do you believe that the evaluation methods you presently use provide your students with accurate feedback about what they have learned in your courses?

7. Do you believe the evaluation methods that you presently use provide you accurate feedback about what your students have learned in your courses?

8. To what degree are you in agreement with each of the stated goals of the _____ department?

9. To what degree do you feel that you are capable of achieving the stated goals of the _____ department?

10. To what degree are you in agreement with each of the stated goals of the School of _____?

11. To what degree do you feel that you are capable of achieving the stated goals of the School of _____?

12. Have you considered attempting to acquire human or material resources outside of your department on your own?

13. Do you know persons who have attempted to formally or informally acquire human and/or material resources from outside their department?

14. Do you plan to make formal and/or informal sharing of resources an activity you will engage in as you plan for and teach your courses? If so, when?

15. What do you believe to be some realistic results of sharing resources on this campus?

16. Are you satisfied with the methods you have to get resources now? If not, are you making additional efforts to seek new ways to get the resources you want?

APPENDIX E

PARTICIPANTS' PROFILE CHARTS

APPENDIX E

TABLE 1

Respondent A : Profile on Level of Use Scale *

Levels of Use	Categories						
	Knowledge	Acquiring Information	Sharing	Assessing	Planning	Status Reporting	Performing
Level 0							
Level I							
Level II							
Level III							
Level IV A		X					
Level IV B	X		X	X	X	X	X
Level V							
Level VI							

*See Appendix A for a description and definition of each level and categories.

TABLE 2

Respondent A : Sense of Teacher Efficacy in

Eight Dimensions of Curriculum Planning *

	High	Moderate	Low
Goals and Priorities		X	
Content of Curriculum	X		
Types of Learning Opportunities		X	
Organization of Learning Opportunities		X	
Organization of Content Areas		X	
Mode of Presentation	X		
Mode of Response	X		
Type of Evaluation Procedures	X		

*See Chapter One for an explanation of these eight dimensions of curriculum planning.

TABLE 3

Respondent B : Profile on Level of Use Scale *

Levels of Use	Categories						
	Knowledge	Acquiring Information	Sharing	Assessing	Planning	Status Reporting	Performing
Level 0							
Level I							
Level II							
Level III							
Level IV A							
Level IV B				X	X		
Level V	X	X	X			X	X
Level VI							

*See Appendix A for a description and definition of each level and categories.

TABLE 4

Respondent B : Sense of Teacher Efficacy in

Eight Dimensions of Curriculum Planning *

	High	Moderate	Low
Goals and Priorities		X	
Content of Curriculum		X	
Types of Learning Opportunities	X		
Organization of Learning Opportunities	X		
Organization of Content Areas	X		
Mode of Presentation	X		
Mode of Response	X		
Type of Evaluation Procedures	X		

*See Chapter One for an explanation of these eight dimensions of curriculum planning.

TABLE 5

Respondent C : Profile on Level of Use Scale *

Levels of Use	Categories						
	Knowledge	Acquiring Information	Sharing	Assessing	Planning	Status Reporting	Performing
Level 0							
Level I							
Level II							
Level III							
Level IV A						X	X
Level IV B	X	X	X	X	X		
Level V							
Level VI							

*See Appendix A for a description and definition of each level and categories.

TABLE 6

Respondent C : Sense of Teacher Efficacy in Eight Dimensions of Curriculum Planning *

	High	Moderate	Low
Goals and Priorities		X	
Content of Curriculum	X		
Types of Learning Opportunities	X		
Organization of Learning Opportunities	X		
Organization of Content Areas	X		
Mode of Presentation	X		
Mode of Response	X		
Type of Evaluation Procedures		X	

*See Chapter One for an explanation of these eight dimensions of curriculum planning.

TABLE 7

Respondent D : Profile on Level of Use Scale *

Levels of Use	Categories						
	Knowledge	Acquiring Information	Sharing	Assessing	Planning	Status Reporting	Performing
Level 0							
Level I							
Level II							
Level III							
Level IV A				X	X		X
Level IV B	X	X	X			X	
Level V							
Level VI							

*See Appendix A for a description and definition of each level and categories.

TABLE 8

Respondent D : Sense of Teacher Efficacy in

Eight Dimensions of Curriculum Planning *

	High	Moderate	Low
Goals and Priorities		X	
Content of Curriculum		X	
Types of Learning Opportunities		X	
Organization of Learning Opportunities	X		
Organization of Content Areas	X		
Mode of Presentation		X	
Mode of Response		X	
Type of Evaluation Procedures	X		

*See Chapter One for an explanation of these eight dimensions of curriculum planning.

TABLE 9

Respondent E : Profile on Level of Use Scale *

Levels of Use	Categories						
	Knowledge	Acquiring Information	Sharing	Assessing	Planning	Status Reporting	Performing
Level 0							
Level I							
Level II							
Level III							
Level IV A							X
Level IV B	X	X			X	X	
Level V			X	X			
Level VI							

*See Appendix A for a description and definition of each level and categories.

TABLE 10

Respondent E : Sense of Teacher Efficacy in

Eight Dimensions of Curriculum Planning *

	High	Moderate	Low
Goals and Priorities	X		
Content of Curriculum	X		
Types of Learning Opportunities		X	
Organization of Learning Opportunities	X		
Organization of Content Areas	X		
Mode of Presentation	X		
Mode of Response	X		
Type of Evaluation Procedures	X		

*See Chapter One for an explanation of these eight dimensions of curriculum planning.

TABLE 11

Respondent F : Profile on Level of Use Scale *

Levels of Use	Categories						
	Knowledge	Acquiring Information	Sharing	Assessing	Planning	Status Reporting	Performing
Level 0							
Level I							
Level II							
Level III							
Level IV A							
Level IV B							X
Level V	X	X	X	X	X	X	
Level VI							

*See Appendix A for a description and definition of each level and categories.

TABLE 12

Respondent F : Sense of Teacher Efficacy in

Eight Dimensions of Curriculum Planning *

	High	Moderate	Low
Goals and Priorities	X		
Content of Curriculum	X		
Types of Learning Opportunities		X	
Organization of Learning Opportunities	X		
Organization of Content Areas	X		
Mode of Presentation	X		
Mode of Response	X		
Type of Evaluation Procedures	X		

*See Chapter One for an explanation of these eight dimensions of curriculum planning.

TABLE 13

Respondent G : Profile on Level of Use Scale *

Levels of Use	Categories						
	Knowledge	Acquiring Information	Sharing	Assessing	Planning	Status Reporting	Performing
Level 0							
Level I							
Level II							
Level III							
Level IV A		X	X	X	X	X	X
Level IV B	X						
Level V							
Level VI							

*See Appendix A for a description and definition of each level and categories.

TABLE 14

Respondent G : Sense of Teacher Efficacy in

Eight Dimensions of Curriculum Planning *

	High	Moderate	Low
Goals and Priorities		X	
Content of Curriculum	X		
Types of Learning Opportunities		X	
Organization of Learning Opportunities	X		
Organization of Content Areas	X		
Mode of Presentation	X		
Mode of Response	X		
Type of Evaluation Procedures	X		

*See Chapter One for an explanation of these eight dimensions of curriculum planning.

TABLE 15

Respondent H : Profile on Level of Use Scale *

Levels of Use	Categories						
	Knowledge	Acquiring Information	Sharing	Assessing	Planning	Status Reporting	Performing
Level 0							
Level I							
Level II							
Level III							
Level IV A			X	X	X	X	X
Level IV B	X	X					
Level V							
Level VI							

*See Appendix A for a description and definition of each level and categories.

TABLE 16

Respondent H : Sense of Teacher Efficacy in

Eight Dimensions of Curriculum Planning *

	High	Moderate	Low
Goals and Priorities	X		
Content of Curriculum	X		
Types of Learning Opportunities		X	
Organization of Learning Opportunities	X		
Organization of Content Areas	X		
Mode of Presentation	X		
Mode of Response	X		
Type of Evaluation Procedures	X		

*See Chapter One for an explanation of these eight dimensions of curriculum planning.

TABLE 17

Respondent I : Profile on Level of Use Scale *

Levels of Use	Categories						
	Knowledge	Acquiring Information	Sharing	Assessing	Planning	Status Reporting	Performing
Level 0							
Level I							
Level II							
Level III							
Level IV A							
Level IV B	X	X	X	X	X	X	X
Level V							
Level VI							

*See Appendix A for a description and definition of each level and categories.

TABLE 18

Respondent I : Sense of Teacher Efficacy in

Eight Dimensions of Curriculum Planning *

	High	Moderate	Low
Goals and Priorities	X		
Content of Curriculum	X		
Types of Learning Opportunities	X		
Organization of Learning Opportunities	X		
Organization of Content Areas	X		
Mode of Presentation	X		
Mode of Response	X		
Type of Evaluation Procedures	X		

*See Chapter One for an explanation of these eight dimensions of curriculum planning.