FACULTY DEVELOPMENT NEEDS AND PREFERRED DEVELOPMENT PRACTICES AS PERCEIVED BY FACULTY MEMBERS

AND ACADEMIC ADMINISTRATORS IN PUBLIC

RESEARCH UNIVERSITIES I

Ву

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Submitted to the Faculty of the Graduate College
of the Oklahoma State University
in partial fulfillment of the requirements
for the Degree of
DOCTOR OF EDUCATION
May, 1984



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ACKNOWLEDGMENTS

The author wishes to express his unbounded gratitude to his major advisor, Dr. John J. Gardiner, for wise counsel, encouragement, and invaluable assistance throughout the period of the preparation of this study. Appreciation is also expressed to the other members of the dissertation committee, Dr. Robert B. Kamm (Committee Chairman), Dr. William E. Segall, and Dr. Thomas A. Karman, for their assistance.

Finally, a note of genuine gratitude is also expressed to the Department of Educational Administration and Higher Education, Oklahoma State University, Stillwater, for their graduate research assistantship, which, in the time of difficulty, provided the financial assistance which made the completion of the doctoral program and this study possible.

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CHAPTER I

INTRODUCTION

Background of the Problem

If faculty development is important in a time of retrenchment, the 1980s will be full of it. In fact we will have to work hard to prevent the 1980s from becoming a time of not only retrenchment but also intrenchment. In a steady and often declining state, new faculty development programs will be necessary to keep the academy alive and lively (Nelson, 1979, p. 143).

In days when higher education institutional budgets were growing and resources expanding, the need for faculty development was not very obvious. During times of plenty, student enrollment was on the increase and faculty could easily transfer from one institution to another. Because resources were available, departments sought to renew or develop themselves by importing new ideas or simply by recruiting new talents to fill faculty openings as they became available.

Following this period of growing academic budgets, public institutions of higher education had begun to experience financial retrenchment. Financial cutback could be attributed to the nationwide recession, enrollment decline, less generous outside/private support, and especially to less state legislative appropriations to higher education because of either declining state revenue, or change in state priority with regard to other social programs. This was a

challenge to higher education and institutions responded in different ways. In order to cope with the new financial realities, the Change Panel On Academic Economics (1976) observed that:

Some administrators have proclaimed a need for greater faculty productivity and accountability. Others experimented with hiring freezes on appointments. Still others imposed rigid tenure quotas. Finally, some administrators threatened with what they called impending financial disaster, dismissed tenured members of faculty and in some cases abolished the tenure system altogether (pp. 83-84).

To the extent that most institutions resorted to less hiring and that the profession for the last decade had been characterized by tenured-in faculty and less mobility, most institutions had to utilize the human resources they already had in their various depart-One of the best ways institutions could handle and cope with the challenges posed by the times and to ensure academic currency and institutional vitality was to strive for improvement of the performance and the effectiveness of faculty members. The Group of Human Development in Higher Education, in their ground breaking work entitled "Faculty Development in a Time of Entrenchment" published by Change Magazine Press in 1974, recognized the necessity of developing faculty during a time of retrenchment. As the group put it, "during the era of mobility, neglect of faculty development was harmful, but the loss was concealed; in a time of retrenchment, continued neglect could become profoundly depressing" (pp. 15-16). This did not mean that faculty development would be a panacea or the solution to all problems facing higher educational institutions today. However, as Bergquist and Phillips (1975) rightly observed, "if faculty development is systematically and patiently implemented as a part of institutional

renewal, it can have profound and lasting impact on the lives of faculty, their administrators, and their students" (pp. 263-266).

While it is the traditionally accepted norm that the responsibility of the individual faculty was to insure intellectual vitality in his or her discipline, there have been certain inherent limitations in academic self renewal. According to Craven (1981), "the scope of some revitalization efforts is just beyond the resources of the individual faculty member" (p. 111). He pointed out that though important, individual faculty member's efforts at renewal have been inadequate. Craven (1981), therefore, urged other organizational units of the higher education community to complement those efforts in addressing the challenging issues of faculty resource flexibility, vitality, and cost. He specifically added that:

In times of financial cutbacks, there is an increasing institutional need to offer faculty members opportunities to increase their range of academic expertise or intellectual mobility, so that faculty may be shifted to meet changing program needs (1981, p. 121).

Similarly, Snyder and Anderson (1980) also stressed that the development of faculty to meet the challenges of the times

. . . will require an effort both in magnitude and in complexity that could overwhelm the professional teaching force unless university presidents, deans, and other administrators provide resources, ideas, mechanisms, and inspirations to help them through the struggle . . . (p. 11).

The implication of the statements by Craven, Snyder and Anderson was that colleges and universities must be involved in faculty development efforts. For a faculty development to be fruitful, there must be a high degree of congruence between the elements and the programmatic

needs of the institution and the development needs of faculty.

Hirschowitz (1975) made the point that, "in order to ensure that participants have good reason to expect that faculty development programs would be successful, it should reflect the participants declared needs" (p. 213). It was therefore necessary according to Berquist and Phillips (1975) that "an effective faculty development program should contain a phase in which faculty are asked to assess their own strengths, weaknesses, and areas in need of improvement" (p. 45).

It was not only important for faculty developers and academic administrators to identify individual faculty development needs, and even preferred developmental activities, but it was also essential for faculty to know about the expectations and perceptions of academic administrators regarding faculty development needs and practices.

Rationale for the Study

Berquist and Phillips (1981), experts and authors in faculty development, had suggested that faculty development, like all other forms of institutional development, must be built on a solid basis of institutional research. Prior to 1974, there was little literature and few studies that had been conducted on faculty development. Since 1976, however, there had developed a voluminous and still growing body of literature on faculty development. This increase in concern and need for faculty development, according to Hammons and Wallace (1976), could be attributed in part to two major studies: one from the Group for Human Development in Higher Education published by Change Magazine in 1974, and the other by Jerry G. Gaff (1975) "Toward Faculty Renewal: Advances in Faculty, Instructional, and Organizational Development."

After a close examination of thirty-three faculty development programs, Nelson (1979) noted that such programs should be flexible and sensitive to the individual differences among faculty. As Stordahl (1981) observed, a program cannot meet only the needs of the college or university without regard for those who constitute the faculty; both are interdependent, both need development. For a faculty development program to be workable, it must be based on faculty development needs. Loheyde (1982) pointed out that faculty development should begin with what faculty, not administrators, choose, but institutional priorities are usually of major concern to administrators. The result, Milley (1980) observed, was that development programs had not been designed to meet the perceived needs of faculty. When faculty needs were met, this was a fortunate coincidence (Carlberg, 1980). This situation could not be considered a healthy practice. Faculty, as Shapiro and Kirby (1981) pointed out, had to feel respected for their competence and professionalism, and they had to be involved in faculty development programs. These authors added that:

. . . faculty have to feel that they have a major voice in the process, without this they cannot develop ownership in the enterprise and will turn it off. If they do not feel ownership, they don't care and the program won't work (p. 100).

The above analysis pointed to the importance of basing faculty development programs on faculty needs. To find out what these needs were, we had to ask them what they viewed as their major areas in need of development. Since administrators were concerned with institutional priority, we had to find out from them what they believed faculty development needs to be. This would enable researchers to

find out discrepancies in perceptions of what both parties think faculty development needs should be. Only then could researchers work toward narrowing the differences to achieve an amicable balance. The program then had to be built on those agreed upon priority areas in need of development, with due regard for cited faculty development needs.

Unfortunately, most of the writings in the literature had been theoretical, position-based papers, and articles other than in-depth field studies in colleges and universities. There have been, however, a number of studies conducted at the junior/community junior colleges in the area of faculty development needs and practices.

The few studies conducted at the college and/or university levels often focused either on faculty development needs as perceived by academic administrators, or on faculty development programs as perceived by administrators, rather than on faculty development needs and practices as perceived by faculty members and academic administrators.

Andrews (1980) described the perceptions of faculty members of a small college consortium toward faculty development practices. Andrews also described the differences between institutional programs of faculty development that were promising and those that were less than promising. He found that faculty members perceived self evaluation, faculty forums, workshops, peer evaluation, and training in the use of instructional technology to be frequently practiced and highly desired. Faculty members also perceived summer stipends, use of learning centers, interinstitutional visits, faculty experience terms, use of consultants, sabbatical leaves, and faculty exchanges, as practices in which they had participated very little but in which they desired to increase their involvement. Andrews failed to examine the other side of the

issue - administrative perceptions of preferred faculty development practices to be used in meeting faculty development needs.

Armand's (1977) study examined development needs of faculty as viewed by selected academic deans from the forty-seven institutions with members in the Southwestern Pennsylvania Higher Education Council. Armand asked the forty-seven academic deans to provide their views in order to determine: (1) institutional policies for faculty development; (2) existing programs for faculty development; (3) program needs for faculty; and (4) similarities and differences in program needs for faculty development among the various institutions represented by the selected academic deans. The findings showed that institutional policies for faculty development were present in all the institutions and that the high priority given to faculty development was enhanced by fiscal support. Academic deans selected institutional level as their first choice for sponsorship of programs for faculty development, other institutions was their second choice, and the regional level their third choice. Program needs for faculty development did not show a significant difference among institutions. Armand, in his dissertation, considered only faculty development needs as perceived by academic . deans, thus neglecting the perceptions of the faculty itself - a crucial party to the success of any development program.

Patterson's (1978) dissertation went a step farther when it considered both faculty and administrators' perception with regard to the needs for and the practice of faculty development for undergraduate teaching personnel at a major public university. This study was limited by its narrowness of scope; it was confined to the University of Alabama. The study focused on determining which development

activities, rather than what faculty development needs, should be incorporated into a comprehensive faculty development program. It was found that both faculty members and administrators generally agreed upon which developmental activities were already taking place on the campus and which activities should be taking place on campus. This finding was not surprising because each was asked to indicate on a two-dimensional scale: "to what degree faculty development activities were already being practiced on the campus" and "to what degree these activities should be practiced on campus." The Patterson research also neglected the vital question of perceived faculty development needs.

Nelsen (1980) conducted a research study that focused on faculty development needs from the perspectives of both faculty and administrators reported in an article entitled, "Faculty Development: Perceived Needs for the 1980s." Nelsen analyzed data gathered via more than five hundred interviews on twenty college campuses as part of an Association of American Colleges (AAC) project on faculty development. One question raised in the interview with both faculty and administrators (deans and presidents) was, "What do you perceive to be the major faculty development needs at your institutions during the coming decade?" (the 1980s). The author reported the responses to the question as frequencies on the basis of the number of institutions in the survey where interviewers judged the particular item to be an important concern among faculty or administrators. In each case, the preceived need was for new or increased activity, not simply continuation of a present program.

The analysis of answers from the interview further revealed that there were differences between faculty and administrators concerning

their perceived needs. In perceived differences, the most evident variation concerned the improvement of teaching. There was much greater concern among administrators for improved teaching on campus. Improvement in teaching was a relatively low priority item among faculty. Administrators, like faculty, attached importance to research support, encouraging full-year sabbaticals, giving special assistance to younger faculty, and other group faculty development projects.

The AAC project focused on liberal arts colleges rather than comprehensive, doctoral, or research universities. The research examined faculty development needs in the projected period of a decade. Furthermore, the researchers did not ask respondents which faculty development activities or programs they preferred or would like to see implemented in meeting their identified needs.

From the foregoing analysis, it could be said that there existed a terra incognita - an area unexplored - because past studies had focused only on faculty development needs as viewed either by academic administrators or faculty members or only focused on faculty development practices as reported by either academic administrators or faculty members.

This study was unique because it attempted to fill an identified gap. It was concerned with determining faculty development needs and preferred development practices in Public Research Universities I, as reported by faculty members and academic administrators.

Statement of the Problem

Academic administrators and faculty members have different perceptions regarding the most important faculty development needs. They also differ in their perceptions regarding faculty development activities and/or practices that should be used in meeting faculty development needs. It is vital, therefore, that before a faculty development program is begun, both faculty members and administrators should have a clear view and understanding of each other's perceptions regarding the most important development needs and preferred development activities. These differences should be better understood and, if possible, resolved.

One way in which the different perceptions could be identified is to investigate not only faculty development needs and preferred activities as viewed by academic administrators but also as these needs and activities are viewed by faculty members themselves.

Purpose of Study

The purpose of this study was to describe deans', department heads', and faculty members' perceptions with regard to personal, instructional, and institutional development needs categories of faculty development needs, and the individual and group activities categories of faculty development practices. Had deans, department heads, and faculty members differed significantly from one another in their responses with regard to three categories of faculty development needs and two categories of faculty development practices?

Research Questions

Specifically, this study attempted to answer the following research questions in one particular experimental setting:

- 1. What are deans' perceptions of faculty development needs within the personal development needs category?
- 2. What are department heads' perceptions of faculty development needs within the personal development needs category?
- 3. What are faculty members' perceptions of faculty development needs within the personal development needs category?
- 4. What are deans' perceptions of faculty development needs within the instructional improvement needs category?
- 5. What are department heads' perceptions of faculty development needs within the instructional improvement needs category?
- 6. What are faculty members' perceptions of faculty development needs within the instructional improvement needs category?
- 7. What are deans' perceptions of faculty development needs within the institutional development needs category?
- 8. What are department heads' perceptions of faculty development needs within the institutional development needs category?
- 9. What are faculty members' perceptions of faculty development needs within the institutional development needs category?
- 10. What are deans' perceptions of faculty development practices within the individual activities category?
- 11. What are department heads' perceptions of faculty development practices within the individual activities category?
- 12. What are faculty members' perceptions of faculty development practices within the individual activities category?
- 13. What are deans' perceptions of faculty development practices within the group activities category?

- 14. What are department heads' perceptions of faculty development practices within the group activities category?
- 15. What are faculty members' perceptions of faculty development practices within the group activities category?
- 16. Do deans, department heads, and faculty members differ significantly in their perceptions of faculty development needs within the personal needs category of faculty development needs?
- 17. Do deans, department heads, and faculty members differ significantly in their perceptions of faculty development needs within the instructional improvement needs category of faculty development needs?
- 18. Do deans, department heads, and faculty members differ significantly in their perceptions of faculty development needs within the institutional needs category of faculty development needs?
- 19. Do deans, department heads, and faculty members differ significantly in their perceptions of preferred practices for meeting faculty development needs within the individual activities category of faculty development practices?
- 20. Do deans, department heads, and faculty members differ significantly in their perceptions of preferred practices for meeting faculty development needs within the group activities category of faculty development practices?

Assumptions of the Study

For the purposes of this study, the following assumptions were made:

- 1. Institutions selected for the study employed similar faculty development activities.
- 2. Departments selected from each college within an institution were representative of the other departments in their respective college.
- 3. Development needs and preferred practices reported by faculty members and academic administrators were accurate statements of their perceptions.

Limitations of the Study

The study was limited by:

- 1. The six Public Research Universities I in the North Central region of the United States.
- 2. The sample of deans, department heads, and faculty members of selected colleges/schools and academic departments within the participating universities.

Therefore, the results of this study should not be generalized beyond the selected colleges and the participating universities.

Significance of the Study

The data generated by this study constitute a solid data profile for Public Research Universities I which recognize that a successful faculty development program is contingent upon identified faculty development needs. Furthermore, the development needs and preferred

activities suggested by this study should be of help to academic administrators as they are able to save time, effort, and money otherwise directed at feasibility studies of such needs. Similarly, the findings of this study should be of significance to non-participating Public Research University I and II and Public Doctorate-Granting Institutions which would want to have some idea of what development needs and practices are emphasized by Public Research Universities I. This is one of the first interinstitutional studies on faculty development needs and preferred development practices among quality I institutions. Faculty developers, academic administrators, and faculty members should find this research to be a valuable resource in assisting them to ask the right questions regarding faculty development needs and preferred activities in efforts to implement faculty development programs at their institutions.

Definitions of Critical Terms

For the purpose of this study, the following definitions were used:

- 1. Academic Administrator refers to the dean of a college or the head of an academic department.
- 2. Academic Department is an academic and administrative unit within a college which is usually responsible for instruction, research, and service within a specific discipline.
- 3. Academic Department Head is used interchangeably with "chairman", "chairperson", "head" to refer to the person designated by the institution as the administrative head or coordinator of an academic department.

- 4. <u>College</u> the term is used interchangeably with "division" and/or "school" to refer to the administrative division of a university composed of several academic departments.
- 5. <u>Dean</u> is the person designated by the institution as the administrative head of a college or school.
- 6. Faculty Development refers to those activities faculty members are involved in while on the job which seeks to modify their attitudes, behavior, and skills in a favorable manner so that their competence and effectiveness in instruction and research are increased in meeting student needs, their own needs, and/or those of their institutions (Francis, 1975).
- 7. <u>Faculty Member</u> is a member of an academic department who is engaged in instruction, research and/or service for that academic unit.
- 8. <u>Institutional Development Needs</u> is used interchangeably with organizational development needs. With roots in organizational theory, organizational change, and group process, the concept is concerned with the institution's creation of an effective environment for teaching, learning, research, and scholarship (Gaff, 1975). It includes departmental management development, team-building, conflict management, and decision-making processes (Bergquist and Phillips, 1975).
- 9. <u>Instructional Improvement Needs</u> is grounded intellectually in education, instructional technology, media, learning theory, and systems theory. The term focuses on courses and curricula (Gaff, 1975)
- 10. <u>Personal Development Needs</u> focuses on the individual growth (Gaff, 1975) by means of interpersonal skills training, counseling, and personal growth workshops (Bergquist and Phillips, 1975).

The purpose behind personal development needs is to promote faculty growth, help faculty members acquire knowledge, skills, sensitivities, and techniques related to scholarship and research.

- 11. <u>Group Development Activities</u> involve two or more faculty members engaged in activities aimed at professional development. It includes such activities as retreats, group visits to other campuses, workshops, and seminars.
- 12. <u>Individual Development Activities</u> includes activities such as sabbaticals, travel to conferences, formal growth contracts, faculty exchange programs, released time, and financial support for further studies.
- 13. <u>Public Research Universities</u> I These are the most research-oriented universities. They are 51 in number and are leading universities in terms of Federal Financial Support of academic sciences in at least two of the three academic years, 1972-73, 1973-74, and 1974-75, provided they awarded at least 50 Ph.D.s (plus M.D.s if a Medical School was on the same campus in 1973-74). (Carnegie Council on Policy Studies in Higher Education, 1976)

CHAPTER II

REVIEW OF LITERATURE

Introduction

It is time to recognize faculty development as an important new human technology for achieving educational improvement, individual development and institutional renewal (Gaff and Justice, 1978, p. 85).

Academic professionals are the most important educational resources of a College or University. As such, their continuous development is of paramount importance to the vitality of their institutions (Gaff, Festa, and Gaff, 1978, p. 8).

Faculty development is a phenomenon of recent emphasis. Prior to the mid-1970's, faculty development practices were few and narrow in scope. In 1970, for instance, Eble (1971) conducted a national survey to examine systematic efforts being made in American colleges and universities to further the career development of effective teachers. The results of the survey were not encouraging as only faculty members from six of the 150 institutions involved in the survey identified their institutions as having effective faculty development systems. Eble's results were a re-confirmation of the findings of Miller and Wilson (1963), and Many, Ellis, and Abraham (1969). In their study entitled, "Faculty Development Procedures in Small Colleges/A Southern Survey", Miller and Wilson (1963) reached the conclusion that:

While there are activities in these Colleges directed toward establishing or improving approaches to faculty development, these activities are, in the main, uncoordinated and lacking in creativity ---. Emphasis tends to be placed on procedures related to the process of orienting faculty members to the institution - an important but limited aspect of the process of development (p. 29).

Many, Ellis, and Abraham's (1969) survey on faculty development in colleges and universities also reached the conclusion that faculty development programs were scarce. Similarly, Sagan (1972) observed that "among the formal institutions, higher education institutions are perhaps the worst offenders in failing to provide for in-service development of staff" (p. 23).

However, the neglect of faculty development by institutions of higher education began to change in the 1970's as many colleges and universities began to embrace one form or another of faculty development practices. Alexander and Yekon (1972) collected information on fourteen instructional development programs. In 1977, Crow and his colleagues compiled descriptions of eleven development centers in southern universities. Unlike the limited survey by Alexander and Yekon, and Crow, a national survey of two year colleges and four year colleges and universities was conducted by Gaff (1976). In the Gaff study in which 1,800 presidents responded, about 60% (1,044) said they had faculty development programs or set of practices. From this data, Gaff estimated that perhaps 50% or slightly over 50% of the post secondary insitutions in the United States now provide some sort of faculty development activities. Gaff (1977) also pointed out that one practice that gained significant momentum in the 1970's as part of faculty development movement was the establishment of offices or centers on campus for the purpose of instructional improvement or development.

Such centers generally conducted activities directed toward: 1) curriculum and instructional development; 2) organizational or institutional development; and 3) personal and professional development. Bergquist and Phillips (1975) provided a comprehensive model of faculty development incorporating these three dimensions.

In an article entitled, "The Explosive Growth of Faculty Development" published in the November 3, 1975 issue of "The Chronicle of Higher Education", the author, Phillip W. Semas, referred to faculty development as "a movement under way to which the number of adherents grows daily" (p. 3). Neff (1976) also recognized this fact of growth when he stated:

Faculty development has arrived no doubt about it. There are enough trappings to demonstrate that something is happening - consultants, new titles, national projects, foundation support, a journal (p. 427).

Ducharme (1981) and Loyeyde (1982) also made similar comments. As Loyeyde (1982) pointed out, interest in faculty development is evidenced by the variety of theories, programs, and incentives that currently exist is colleges and universities. Nelsen (1979) clearly made the point when he stated that "without question faculty development has been one of the major emphasis in academy throughout the 1970s" (p. 141). Thus by 1980, faculty development has

. . . mushroomed into a highly visible and self-conscious enterprise, complete with its own jargon, literature, curcuit-riding experts and other professional paraphernalia" (McCartney and Wurster, 1980, p. 15).

During this time in question, colleges and universities' efforts at faculty development were funded and encouraged by major foundations -

Lilly, Melon, Kellogg, Danforth, and by federal agencies such as the Foundation for the Improvement of Post Secondary Education.

The purpose of the foregoing analysis was to lend credibility to the opening statement that faculty development was eventually unknown in the 1960's. By the early 1970's, it was already gathering momentum; by the late 1970's, faculty development was in a state of maturity. The 1980's, it would appear, might as well become the "Golden Age" of faculty development in the United States' colleges and universities.

Definitions of Faculty Development

Today, the concept faculty development has become commonly accepted among faculty and administrators in almost every college and university. Bergquist and Phillips (March-April 1975) also recognized this fact when they stated that "faculty development has become an increasingly prominent concept for growing numbers of faculty and administrators in American Colleges and Universities" (p. 178).

Mullally and Duffy (1978) made the point clearer when they pointed out that "faculty development is now part of the vocabulary of every academic" (p. 121).

In spite of its popularity and wide usage, a generally accepted definition of faculty development has still not yet emerged. Often scholars, researchers, faculty developers, authors, and consultants have used the term differently; sometimes narrowly, other times broadly, and yet sometimes synonymously and interchangeably with faculty improvement, faculty renewal, teaching improvement, staff development, instructional innovation, instructional development, or in-service education. An examination of some contemporary definitions

will reveal the diversity in meaning of faculty development. Ralph (1973) has given cognizance to this confusion in the meaning of the term. He noted that although the subject of faculty development is clearly gaining prominence in the field of higher education, its meaning is not clear, as the term was very often used to "mirror common sense ideas of mental health and adjustment and thus refers to ways in which faculty can learn to function more effectively with minimal stress and tension" (p. 61).

Phillips (1976) defined faculty development as "an attempt to improve the teaching effectiveness of the individual faculty member" (p. 14). This definition equated teaching improvement with faculty development. This definition was considered too narrow because instructional development was only one aspect of the holistic concept of faculty development. Marty (1976); Ferren and White (1977); Goldman (1978); Davis (1979); Rhodes and Hounsel (1980) are some of the several authors whose meaning of faculty development has focused on classroom techniques and skills. Freedman and Sanford (1973) referred to faculty development as

. . . favorable change whose consequence is that faculty members operate within increasing autonomy in accord with internalized values and goals — and function more effectively as individuals . . . (p. 3).

There are authors who regard faculty development as an institutional process, an opportunity to enhancing one's interest or ability and involving activities. Francis (1975) viewed faculty development as an

. . . institutional process which seeks to modify attitudes, skills and behavior of faculty members toward greater

competence and effectiveness in meeting student needs, their own needs and the needs of the institution (p. 720).

Similarly, Nelsen (1979) defined it as "those activities designed and implemented to improve their professional lives as teachers, scholars, and contributors to institutional decisions" (p. 142).

Finally, Stice (1976) defined faculty development broadly as

. . . those activities faculty members are involved in [while on the job], to help them develop and grow in knowledge of their discipline, in understanding of and skill in managing the teaching/learning process, in scholarly ability, in sensitivity to and understanding of students, in developing a sense of belonging to their department and institution, in satisfaction with their job, and in the ability to be decent, reasonably happy, well adjusted human beings (p. 77).

The author found the three last definitions as more encompassing and comprehensive. Unlike those definitions that regarded or equated teaching improvement with faculty development, these three definitions recognized the multifarious roles of the faculty member "as a researcher, teacher, scholar, theory builder, consultant, counselor, information analyst, problem solver, contributor to campus and community life" (Nelsen, 1981, p. 1), and the need to change his or her behavior and improve his or her performance in the identified roles.

Faculty will be encouraged to improve their performance if there is a clear statement of faculty development in that department or institution. This was particularly true if there existed an institutionalized faculty development program. This point was suggested by the Massachusetts Advisory Council on Education report on faculty in 1977. The report stated, "unless formal programs of faculty improvement exist, self improvement rarely takes place. . ." (p. 1620).

Moreover, Gaff (1978a) observed that despite the fundamental redistribution of power during the 1960's that gave students a legitimate role in formulating academic policy at many institutions, coupled with their demands for better teaching, the faculty movement of the 1970's had proceeded nearly independently of students. He believed that for faculty development to realize its goals of improving education of students, it must involve students more actively in four important areas:

- 1. assessing the needs that should be addressed,
- 2. helping to plan faculty development programs,
- 3. participating in various faculty development activities, and
- 4. evaluating the effectiveness of such programs and activities (pp. 59-60).

Generally, there was a tripartite categorization of faculty development programs into:

- 1. organizational development which is concerned with the promotion of adaptive changes in the institution,
- 2. instructional development: is concerned with the promotion of more effective teaching, and
- 3. personal and professional development of the individual faculty member and his career.

According to Wolke (1980), "any given faculty development effort may encompass in its mission one, two, or all three of these kinds of programs, with varying degrees of emphasis" (p. 839).

Gaff (1975), in his book entitled <u>Toward Faculty Renewal</u>, used a table to summarize the main focus, the purpose, the intellectual base,

and the typical activities of each of the three categories of the broad concept, "faculty development". (See Table I)

Need for Faculty Development

Despite the diversity in meaning, faculty development had become an accepted phenomenon in higher education. The need for professional personnels to improve their knowledge and skills while on the job was rarely questioned (Washington, Jr. and Chisolm, 1979). There were several reasons providing an impetus for the need to develop faculty while on the job.

First, doctoral programs did not adequately prepare candidates for their future faculty positions and their accompanying responsibilities. This weakness in doctoral programs was best vividly portrayed in Ann Heiss' (1970) book, <u>Challenges to Graduate School</u>, when she stated:

Those who plan doctoral programs are faced with the dilemma of whether to educate scholar-teachers, teacher-scholars, or both. . . Until quite recently, most planners rejected Newman's contention that 'to discover and to teach are distinct functions and distinct gifts rarely found in the same person' in favor of Huxley's view that research informs teaching . . . Thus, the emphasis has been heavily weighted in favor of preparing students to discover knowledge, and only incidentally if at all on how to impart to others the nature and value of that knowledge. As a result, the American college teacher is the only high-level professional person who enters his career with no practice and with no experience in using the tools of his profession (p. 228-229).

This lack of professional preparation of faculty was also recognized by Gaff (1976). He stated that

Colleges and universities are . . . staffed by faculty who in general, have never studied the history of their profession, are unfamiliar with the topolography of the

TABLE I

ALTERNATIVE CONCEPTS OF INSTRUCTIONAL IMPROVEMENT*

	Faculty/Professional Development	Instructional Development	Organizational Development
Focus	Faculty Members	Courses or Curricula	Organization
Purpose	Promote faculty growth; help faculty members acquire knowledge, skills, sensitivities, and techniques related to teaching and learning.	Improve student learning; prepare learning materials; redesign courses; make instruction systematic.	Creative effective environ- ment for teaching and learning; improve inter- personal relationships; enhance team functioning; create policies that support teaching and learning.
Intellectual Base	Clinical, developmental, and social psychology; psychiatry; socialization.	Education, instructional media and technology, learning theory, systems theory.	Organizational theory, organizational change, group processes.
Typical Activities	Seminars, workshops, teaching evaluation.	Projects to produce new learning materials or redesign courses; workshops on writing objectives, evaluating students.	Workshops for group leaders or team members action research with work groups, task forces to revise organizational policies.

^{*}By Gaff, Jerry G., "Toward Faculty Renewal". San Francisco: Jossey-Bass, 1975, p. 9.

educational landscape . . . and have never been expected to formulate systematically their own philosophies of education or their views about teaching and learning (p. 16).

These deficiencies in the preparation of faculty could gradually be ameliorated through faculty development programs and activities.

The declining rate of faculty mobility, high tenure density, declining enrollments coupled with less hiring of new blood have made many authorities and institutions to consider faculty development programs an urgent priority for the survival and vital health of higher educational institutions (Vicere, 1981; Oi, 1979; Centra, 1978a; Birnbaum, 1975; and Brown and Hanger, 1975).

The presence of aging faculty, the explosion of knowledge, and shrinking resources available for higher education were other reasons offered for faculty development. Chait and Gueths (1981) pointed out that the model age of tenured faculty, now two-thirds of the full-time work force, was 36-45, with relatively few faculty over age 55. Most colleges and universities today have realized that they were going to have the same faculty with them in the year 2000. The Carnegie Council estimated that by the year 2000, the model age of tenured faculty will be 56 to 65 and that there will be far more faculty members 66 and over than there are faculty members 35 and younger. According to Chait and Gueths (1981),

Sobered by these prospects [tenured-in and aging professoriat] academic administrators have started to ask in one form or another, now that we've got them, what do we do with them? How do we assist faculty to remain or once again become vibrant, vital, productive, and pertinent? How do we acclimate faculty to the new markets we must capture to thwart or minimize enrollment declines? How do we help the faculty to remain current as knowledge explodes and resources diminish? Faculty development has often been offered as an answer to these unprecedented challenges . . . (p. 30).

Bruss and Kutiner (1981) and Nelsen and Siegel (1980) also recognized that the use of faculty development programs was an important strategy of infusing new ideas and encouraging continuing personal growth of aging and less mobile faculty under conditions of static or shrinking financial support for higher educational institutions. Georgiades (1980) made a similar point when he pointed out that, with age, human beings suffer from diminished vitality, creativity, and flexibility. Professors, this author believes, are no exception to this rule. Georgiades then added that growth and decay are companions to a third and vital component – renewal – another term for faculty development.

Furthermore, new instructional approaches and other sophisticated instructional methods that were available for classroom use which faculty were either unable to use or were unaware of necessitated faculty to acquire new competencies (Gaff, 1977; Kosma, Bell, and Williams, 1978).

Another reason for faculty development was the increasing heterogeneity of college students. The new clientele - the new body of students - had been identified in the professional literature as "part-time students, older persons, those economically or educationally or culturally disadvantaged, and lately even those with learning [and physical] disabilities" (Toombs, 1977, p. 367). This diversity of student population was well observed by Munday (1976) who stated:

College and university student bodies never again will be made up almost enitrely by students who are 18 to 22 years old, white, full-time, from the upper half school classes, and from middle- and upper-class socio-economic background. These traditional students . . . have been joined by other non-traditional students; students who are older, minority, part-time, from lower half of their high school class, and from lower strata socio-economic background . . . Seemingly the non-traditional student is here to stay (p. 682).

The increase in the diversity of college and university students including non-tradutional (older) students who demanded that their rights and expectations were upheld, increased the pressure on faculty to be more flexible and more productive.

Besides, the public disenchantment with the quality of the educational product, the pressures for more efficient use of existing faculty, and the increasing general demand for accountability in higher education were also reasons for faculty development (Centra, 1978a; Kramer, 1979; Wergin, Mason, and Munson, 1976; Smith and Ovard, 1979).

Finally, the presence of an articulate press, rapidly changing society (from industrial to informational), continually expanding and developing technology, and the need to better equip graduate students to compete for jobs in higher education, posed a challenge to faculty to continuously involve itself in renewal activities.

From the above analysis, the purpose of faculty development could be considered as one of helping faculty to acquire new knowledge, skills, and understandings, to keep abreast of new technology, and to be able to improve on their performance and competence in studying and solving incumbent educational and social problems.

Approaches and Strategies to Faculty Development

For the past twenty years, especially in the last decade, efforts directed at improving faculty performance in the most effective manner, and the different needs identified demanded different approaches to professional development. As Phillips (1975) pointed out, faculty

development

. . . is eclectic, drawing on the skills of the psychologist, the professional educator, the technician, and even the humanist. It is also multi-dimensional, embracing a wide range of strategies and approaches (p. 14).

Gaff and Justice (1978) also observed that faculty development was not a "kind of vaccine that can cure various illness; there is no cut and dried formula that can guarantee success. Faculty development activities are journeys, not destinations" (p. 89). This lack of one formula was understandable because "the practice of faculty development poses complex issues for which there exists no simple solutions" (Wergin, Mason, and Munson, 1978, p. 307).

In an article entitled, "Faculty Development as Human Development",
Martin (1975) argued that:

. . . faculty development programs in colleges and universities must be faulted for three reasons; first, they do not have adequate theory; second, they do not employ a comprehensive approach; and third, they do not show a deep intention (p. 187).

This statement cannot be accepted today in its entirety. While there had not emerged an adequate theory, faculty development programs were presently well intended and planned and there had emerged comprehensive approaches to faculty development.

Bergquist and Phillips (1975) found existing traditional approaches (sabbatical leaves, research support, and travel to conferences and meetings) no longer adequate in meeting the challenges of our times. They, therefore, advocated a more comprehensive approach to faculty development. This approach embraced personal and professional development, instructional development, and organizational development.

This model assumed that in faculty development, significant changes must occur at the different levels of attitude (personal), process (instructional), and structure (organizational). The authors believed that a change effort focusing on only one of these levels will rarely achieve success. The three components and their interrelated elements that constituted a comprehensive faculty development approach, as suggested by Bergquist and Phillips (1975), were summarized as follows:

- I. Instructional Development (Process) is Composed of
 - A. Evaluation
 - B. Diagnosis
 - C. Training: Traditional Methods
 - D. Training: New Methods and Technologies
 - E. Curricular Development
- II. Organizational Development (Structure) is Composed of
 - A. Team-building
 - B. Decision Making
 - C. Conflict Management
 - D. Problem Solving
 - E. Managerial Development, and
- III. Personal Development (Attitude) is Composed of
 - A. Discussions About Teaching
 - B. Career and Life, Planning
 - C. Interpersonal Skills Training
 - D. Personal Growth
 - E. Therapeutic and Supportive Counselling (p. 258).

Gaff (1975), like Bergquist and Phillips, distinguished three general approaches to a comprehensive faculty renewal effort. The three approaches were: faculty development, instructional development, and organizational development. According to Gaff, Fiesta, and Gaff (1978), faculty development rested on clinical, developmental, and social psychology and focused on individual growth and development of faculty as persons and teachers. Instructional development focused on courses and curricula with intellectual base in education, instructional technology and media, learning theory and systems theory. Finally, they considered organizational development aspect as being concerned with the institution itself and rooted in organizational theory, organizational change, and group process.

Stordahl (1981) had, on the basis of complexity, put faculty development in a continuum ranging from the totally independent, individualistic approach on the one end, to the theoretical model on the other end. Between these two extreme approaches could be identified a variety of other approaches including the political approach, the educational research approach, the organic mode, the interinstitutional approach, the scholarship and personal growth models and the inquiry method.

Gaff (1978b), one of the notable researchers and writers in the area of faculty development, referred to the individualistic approach as one in which faculty members reviewed their own courses and their own methods and attempted to make changes. Webb and Smith (1976-1977) described the theoretical, instructional effectiveness model as the

^{. . .} systematic design and implementation of instruction, the point of interaction between the learner and the curriculum, rather than teaching the specific behaviors that facilitate or bring about this interaction (p. 88).

The scholarship model involved providing faculty with released time to produce new information in their own discipline. The organizational and growth model involved placing emphasis on providing faculty members with an environment that was conducive to the realization of the professional and personal growth of the individual (Webb and Smith, 1976-1977).

There was also the multi- or the interinstitutional approach to faculty development. It was referred to as a corsortium, and it involved the interaction of persons from different institutions and different levels. Each participant was able to work with colleagues from his/her own institution or other cooperating institutions in the development of a plan for developing new teaching approaches among colleagues (Linden, 1976-1977). According to Grupe (1972), interinstitutional cooperation constituted an avenue "through which colleges and universities seek to expand their administrative, curricular, research, cultural, instructional, or community service capabilities" (p. 3). He added that this type of coordinated action encompassed "myriad forms of cooperation from relatively informal, perhaps interpersonal agreements, to separate coordinated consortia with twenty to thirty colleges" (p. 3). Through his study of interinstitutional cooperations, Grupe (1972) identified certain basic characteristics and rationale that served as a common denominator to all organized consortia. The characteristics he identified were as follows:

They existed as distinct corporate entities separate from, although closely identified with, the institutions they have been created to serve.

They employed their own staff.

They served three or more voluntarily associated colleges or universities.

They attempted to provide a variety of cooperative programs for the member institutions.

The rationales Grupe (1972-1973) identified as underlying any formal consortia included the following:

To expand the number and variety of educational opportunities available to students.

To share institutional resources.

To reduce or avoid unnecessary or wasteful duplication in program offerings and unique research or instructional facilities.

To make full use of specialized faculty talents, quality program offerings, and unique research or institutional facilities.

To structure solutions to problems which cannot be dealt with effectively by one institution.

To provide mechanisms for exchanging and disseminating information needed to improve the operating efficiency of the member colleges.

To develop programs through which the colleges can upgrade their contributions to the solution of regional problems.

To provide opportunities for innovative approaches to educational programs through joint action.

An example of a well organized consortia has been the Southwestern Pennsylvania Higher Education Council which was organized in 1974. The Council was composed of over forty campuses in the Southwestern Region of Pennsylvania. One of the great merits of the consortia was that they had the potentiality of "enabling the nation's colleges and universities to restructure their relationships with one another more efficiently and effectively" (Grupe, 1972, p. 3).

There was also the educational inquiry approach to faculty development, suggested by Connell, Alberti, and Piotrowski (1976-1977). In the inquiry appoarch, development programs were organized to enable faculty to work directly on increasing specific kinds of student learning. Specifically, inquiry programs stressed development in faculty of an ability to experience and articulate dissatisfactions with their educational effectiveness. The authors pointed out that as faculty made an effort to reduce some discrepancy between their valued intentions and practices, they came to see fallacies not only in their teaching methods but also in their curricular organization and evaluation techniques. From this level of awareness, they could determine for themselves what they needed to learn and, ultimately, how much to learn.

Furthermore, there was the personal development approach to faculty development. The proponents of this method believed that the problems faculty members had in their personal lives had direct bearing on their performance and effectiveness as professors. They assumed that one of the ways to provide such individual motivation and assurance so that their needs could be met was through involvement in faculty development programs (Stordahl, 1981). Program components aimed at personal involvement and development included workshops on assertiveness training and anxiety reduction (Stice, 1976-1977) and faculty interviews that stimulated faculty to reflect on their own development and institutional situations (Freedman, 1973).

Moreover, some authors advocated faculty development programs based on individual development plans or individualized faculty statements (O'Banion, 1974; George, 1977). One of such individualized

faculty development was called the Growth Contract Plan. This method entailed the individual professor developing a contract with the assistance of a consultant. The contract specified the personal and professional goals that the professor had set for himself or herself as well as the methods used to evaluate the achievement and the schedule to be followed. The growth contract approach had been practiced at the University of Texas, at Austin. The growth contract plan had certain advantages. In a national survey conducted by Centra (1977a) on faculty development practices, the author found the vast majority of respondents considered the growth contract plans effective. He attributed this effectiveness to what he identified as the inherent tendency for growth contract plans to build on strengths and eliminate the weaknesses of faculty members on an individual basis. They were also probably less threatening to many people than formal ratings by colleagues or administrators.

Bell, Dobson, and Gram (1977) pointed out that some types of peer observations have been successfully integrated into faculty development programs. Stordahl (1981) identified these peer observations to include: 1) triads or three-member teams working together to assess members' teaching performance (Redditt and Hamilton, 1978; Sweeney and Grasha, 1979); 2) faculty diagnostic teams (Bergquist and Phillips, 1975b); 3) master teachers who can evaluate teaching and demonstrate new and perhaps more effective methods, and 4) faculty exchanges (Centra, 1977a).

Finally, Appleton and Boyle (1975-1976) proposed what they described as a "middle-range" theory for the development of a professional teacher. This approach incorporated three distinguishable

components into a unified whole: 1) the substantive component, in the form of modular offerings, providing the knowledge for intelligent action; 2) field experiences necessary for the refinement of theory and practice; and 3) coordinating seminar intended to integrate the whole.

The modular components of the proposed structure provide the opportunities for bringing together experts and authorities within various educationally relevant fields and disciplines to share ideas and practices. The field experience component provided an opportunity for a laboratory experience to refine the substantive offerings of the modular component. Finally, the coordinating seminar component of the model was offered to facilitate both the integration of theory and practice and the various modular components.

There have been numerous approaches to faculty development and the list of approaches discussed above is by no means exhaustive. It should also be noted that each of the various approaches to faculty development can embrace any number of individual components (Stordahl, 1981).

In addition to these approaches to faculty development, there were also several strategies. Bergquist and Phillips (1975, pp. 260-266) offered a list of eleven strategies to faculty development. The list included:

- Training strategy,
- Consultation strategy,
- 3. Personal and organizational development strategy,
- 4. Method-promotion strategy,
- 5. Instructional materials strategy,
- 6. Equipment strategy,

- 7. Discussion strategy,
- 8. Evaluation strategy,
- 9. Reward strategy,
- 10. Career transitions strategy, and
- 11. Comprehensive institutional development strategy.

Gaff (1975, p. 137), in his extensive study of faculty development centers, suggested useful guidelines and politically effective strategies for professional-development programs. These strategies were as follows:

Use local talent in workshops and other activities.

Develop the program with faculty, not for the faculty.

Operate primarily on hard money, only supplemented by grant funds.

Select an academic director - not a media person, librarian, or educationalist.

Be sure to have the center attached to the provost's office or equivalent, and have good funding to start with.

Make all service voluntary.

Don't try to help with one hand and evaluate (or tattle!) with the other.

Be sure the person to whom you report has lots of clout — but you come on gently.

Ensure that the center is faculty initiated and supported.

Make sure you have "grass roots" support.

Expect some opposition, but be patient.

Operate a low-profile, service-intensive organization.

Do not threaten the faculty.

Types of Faculty Development Progams, Practices, and Activities

There were a broad range of programs, practices, and activities that have been cited in the literature. Colleges and universities varied in their focus and, in most cases, used more than one type of program. The purpose underlying the use of faculty development programs, however, was to improve one, sometimes two, or all the components of faculty development-instructional, personal and professional, and institutional development. Thus, faculty development activities could be grouped under three broad headings corresponding to the three components of an effective, comprehensive faculty development program that had been proposed by Bergquist and Phillips (1975) and Gaff (1975). This effort at listing may not be exhaustive of the numerous models of activities for faculty development; neither were the groupings mutually exclusive. This situation should be understood because, as Gaff (1975) pointed out, "the field of faculty development is so new and undefined that the variety of programs and activities conceived in its name is bewildering" (p. 14).

The list of activities, practices, and programs were grouped under the headings of personal (faculty) and professional development, instructional development, and organizational or institutional development. This was expanding on Wolke's (1980) work. Wolke grouped faculty development programs into two headings: instructional and personal development.

- I. Personal (Faculty) and Professional Development
 - A. Personal growth workshops
 - B. Supportive and therapeutic counseling

- C. Brief visits to other campuses
- D. Workshops and seminars on life or career planning and management
- E. Interpersonal skills training
- F. Temporary load reduction to work on a new course or a piece of research
- G. Travel funds to attend professional conferences
- H. Faculty interviews
- J. Orientation programs for new faculty
- K. Interdisciplinary studies program
- L. Sabbatical leaves or leaves of absence for learning a new field
- M. Participate in consortia activities
- N. Internships or leaves to work in industry or government
- O. Grants and/or released time for innovative projects in teaching or research
- P. Individualized development plans (growth contract plans)
- Q. Faculty libraries (professional collection)
- R. Attending short course program
- S. Exchange study programs
- T. Auditor-consultant programs
- U. Consultative services for professional personal services
- V. Visiting scholars programs

II. Instructional Development

- A. Classroom observation and diagnosis (classroom visitatation)
- B. Microteaching
- C. Instructional evaluation
- D. Student evaluation of instruction
- E. Workshops on instructional methodology and technology

- F. Redesign courses and/or curricula
- G. Workshops on setting objectives
- H. Course in college teaching
- I. Newsletters and articles on teaching distributed to the faculty
- J. A faculty reading room devoted to teaching problems
- K. Training programs for teaching assistants
- L. Publishing a Teaching Assistant Handbook or faculty mannual of campus teaching services
- M. Videotaping of classes, followed by a critical analysis of the tapes
- N. Private consultations with "master teacher" colleagues
- O. Small grants to faculty for teaching needs
- P. Fellowships for undergraduate students to work with faculty members on course development
- Q. Meeting with deans and departmental administration on role of teaching
- R. Awards to outstanding effective teachers
- S. Aid in keeping one's knowledge on the field up to date
- T. Sabbatical leaves for teaching development
- U. Instructional improvement centers
- V. Demonstration of teaching and learning strategies
- W. Campus conferences on effective teaching
- X. Faculty teaching seminar programs
- III. Organizational (Institutional) Development
 - A. Workshops for group leaders or team members
 - B. Action research
 - C. Revise organizational policies
 - D. Team-building
 - E. Conflict-management

- F. Decision-making
- G. Management training
- H. Community meetings
- I. Participative problem solving
- J. Intergroup consultation
- K. Group formed to share personal experience on the job
- L. Workshops for faculty and administrators on group decision—making and effective meeting
- M. Periodic faculty study
- N. Workshops and/or seminars to increase self-consciousness, sensitivity to other people and increase interpersonal skills
- O. Collection and joint diagnosis of information about the institution
- P. Task force-utilizing work groups-departments, schools, and committees to redesign job or work load to produce greater satisfaction
- Q. Faculty retreat

In a review of current institutional faculty development practices, Centra (1978b) found the use of small grants as one of the most effective practices to faculty development and teaching improvement.

Bergquist and Phillips (1975, pg. 237) identified four types of workshops in faculty development programs. They were:

- 1. Long-term (five-day to two-week) residential workshops,
- 2. Short-term (two- to four-day) residential workshops,
- 3. Extended on-campus (three to twelve hours) workshops, and
- 4. Brief on-campus (one to two hours) workshops.

Most scholars of faculty development emphasized the need to institutionalize faculty development programs. Perhaps the most important reason that had been given for suggesting the maintenance of an

active renewal program was that, as Nelsen (1981) pointed out, without it "both individuals and the college [or university] in which they serve can too quickly loose their sense of life and liveliness" (p. 14).

Generally, while some colleges and universities provided opportunities for individual faculty development, others provided opportunities for group development. Nelsen (1981) observed that when colleges and universities created faculty development programs which provided opportunities for renewal of faculty only as individuals, "they unintentionally diminish group interaction and colleagueship and further encourage the individualization of the professoriate" (p. 9). To avoid this individualization, Nelsen suggested that it would be necessary for colleges and universities to emphasize corporate faculty development activities/programs.

The list of faculty development practices outlined above shows the numerous and diversified possibilities of such activities.

These varieties pointed to the fact that no one practice could be most effective at all times, in all institutions, and under all conditions. Since students, faculty, and departmental structures differed from one institution to another, and even within the same institution, the "one short approach" to faculty development should be avoided.

Faculty developers and academic administrators should be able to study the characteristics of their faculty and select from the array of development activities in implementing their programs. By selecting these possibilities, Weber (1973) believed that an institution had only to be imaginative in developing a stimulating program, some parts of which would appeal to each member of the faculty.

Areas of Faculty Development Needs

From the literature can be identified several different areas in which faculty often sought development. These perceived development needs included the following:

Skills in grantsmanship

Research, scholarship, and publication skills

Time-management

Professional development (keeping with field and greater understanding of field)

Public service (consulting)

Large group instruction techniques

Individualized instruction techniques

Small group and discussion techniques

Student evaluation

Preparation of instruction

Academic advising (student advising)

Career counselling skills

Good academic guidance

The use of audiovisual aids

Application of instructional technology

Improvement of teaching skills and strategies

Planning and developing courses of instruction to facilitate the achievement of clearly articulated objectives

Communication skills

Increasing student motivation to learn

Helping students clarify purposes, develop self-understanding, and confidence and relate effectively to others

Developing students' intellectual skills

Enhancing instructors' knowledge in the subject field

Understanding institution's policies and procedures

Effective use of instructional resources

Faculty understanding of institution's mission

Interpersonal relations skills

Strong faculty teams within departments

Helping faculty cope with personal needs

Group-learning activities

Competence testing and grading

Team teaching

Marketing education services

Participative governance

Budgeting

Leadership skills

Institutional development

Public relations

Psychology of learning

Listening skills

Program evaluation

Rewarding performance

Group research or projects

Conflict-management

Problem-solving skills *

Creation of educational consulting service

Faculty Evaluation

Faculty evaluation had been considered an essential professional activity, yet the tern meant different things to different people. Literally, the meaning of the verb "to evaluate" is "to estimate the value of some object or activity" (Raizen and Rossi, 1981, p. 35). The question then might be asked, "Who is to set this value?" Evaluation once meant self analysis (Marshall, 1971, p. 487). Howsom (1973, p. 13) defined faculty evaluation as "a process that involves making judgments on the basis of evidence regarding the attainment of previously determined conditions or objectives". According to Bergquist and Phillips (1975), evaluation enabled us to assess the discrepancy between current operation and desired outcomes. It could also be viewed as the process of collecting relevant data for decision making (Cooley and Lohres, 1976). Priest (1967, p. 287) saw evaulation as "an inherent element of an organized effort to achieve a goal."

The above definitions fell into the two mostly accepted definitions/purposes of evaluation: a) formative evaluation, designed for professional development, and b) summative evaluation, with the aim to providing data with which to make decisions regarding tenure, promotion, and salary increase. Evaluation and faculty development could be considered supplementary. Nelsen (1981, p. 61) made a similar point when he stated:

A good faculty development program requires a good faculty evaluation system - and vice versa. Without good faculty development opportunities evaluation for the purpose of renewal is hollow . . . Faculty evaluation and faculty development must be closely related for the benefit of both.

Bergquist and Phillips (1975) also pointed out, "any organization that wishes to change in a systematic and thoughtful manner must continually assess the discrepancy between current operations and desired outcomes" (p. 45).

Although the important role of evaluation in bringing about change appeared to be widely recognized, and in most cases even accepted, its execution in colleges and universities was often very controversial and emotional. As far back as 1942, Wilson recognized the complexity involved in assessing faculty services. As he himself put it, "it is no exaggeration to say that the most critical problem confronted in the social organization of any university is the proper evaluation of faculty services" (1942, p. 112). This state of affairs was attributed to various factors. Coufal and Hines (1976) attributed it to the fact that while "evaluation might be considered a personnel procedure, it is also considered to be a very personal procedure" (p. 5). Hodgkinson (1972) attributed the controversy to the intricate interwoven dual purposes of evaluation - formative and summative evaluation. He contended that while "the central purpose of evaluation is to assist individuals to improve his or her performance", he found that in practice, "most evaluation systems work primarily to reject than to help people" (p. 5). Besides, many faculty members were sharply critical of the objectivity, consistency, and practicability of the practices used, particularly the purposes to which the collected data are used (Seldin, 1975). The underlying difficult reason for the controversy surrounding faculty evaluation was perhaps best illustrated by Thompson and Dalton (1970). As they observed, perhaps the difficulty arose because:

. . . performance appraisal touches on one of the most emotionally charged activities in business life - the assessment of man's contribution and ability. The signals he receives about his assessment have a strong impact on his self-esteem and on his subsequent performance (p. 150).

However, the stress and distrust that was often associated with faculty could be greatly reduced if faculty and administrators cooperatively worked out a systematic and comprehensive system of evaluation. Cooperatively working out weighted criteria to be evaluated and the How, What, Why, When, and By Whom in faculty evaluation will be a positive step in the right direction in minimizing distrust that often surround evaluation of faculty.

Eckard (1980) also suggested a compromise measure in faculty evaluations. He urged that the specific criteria for faculty evaluation should, to a large extent, be determined by the university and the executive administration while the college and the department levels should provide the sub-criteria applicable to the field.

Purposes of Evaluation

There are various purposes for evaluation. Some identified in the literature (Bolton, 1970; McKeachie, 1969; Gustad, 1967; Coufal and Hines, 1976; Seldin, 1975; Kimball, 1980) were as follows:

- 1. To improve faculty perforance.
- 2. To provide the basis for planning for individual growth and performance. That is, it paves the way for faculty development programs.
- 3. To facilitate administrative decisions regarding promotion, reappointment, tenure, and increase in salaries.
- 4. To protect either the individual or the organization in legal matters.
- 5. To reward superior performance.

- 6. To supply information for modifying job assignments.
- 7. To stimulate positive responses to accountability, quality, an excellence in the system as a whole.
- 8. To improve the atmosphere for learning by involving more people in academic governance.
- 9. To provide criteria for use in research on teaching and learning.
- 10. To stimulate student thinking about education and teaching/learning process.
- 11. To guide student choice of courses.

Methods of Faculty Evaluation

There have been several criteria associated with the evaluation of faculty. The number of criteria used in any faculty evaluation varies from institution to institution, and sometimes within the same institution. Seldin (1975) utilized 13 criteria in his study of 417 private liberal arts colleges. The criteria used were: classroom teaching, supervision of graduate study, supervision of honors programs, research, publications, public service, consultation, activity in professional societies, student advising, campus committee work, length of service in rank, competing job offers, and personal attributes.

Closely related to the use of criteria was the utilization of information from various sources. Among these several sources were: student ratings, colleague exaluation, self evaluation, special incidents, informal student opinions, colleagues' opinions, scholarly research and publications, student examination performance, chairman evaluation, dean evaluation, course syllabi and examination, long-term follow-up of students, and grade distribution (Seldin, 1975).

These sources of information were also often considered as methods or modes of evaluation. A brief discussion of three of the most commonly used modes of evaluation (self evaluation, peer evaluation, and student evaluation) follows.

Self evaluation was the process whereby the individual faculty assesses his/her own performance as a part of the basic data for judging teacher performance. The faculty member was usually asked to assess his own weaknesses/strengths and areas of improvement. It is a proper procedure to "have the faculty member fill out the same evaluation instrument that is being completed by his peers or students" (Bergquist and Phillips, 1975, p. 45). Dressel (1970) and Eble (1972) considered self evaluation as essential to improving one's skills, overcoming one's teaching weaknesses, and assisting faculty in personal and instructional development.

The self evaluation method was attacked for its numerous weaknesses, particularly for the extreme difficulty involved in self
evaluation. Ozmon (1967) simply referred to it as faulty mechanism.

He argued that since every teacher tends to look on himself as a good
teacher, an honest self appraisal was rare. Schwarts (1980) and
Hoover (1980) noted that under self evaluation, superior teachers
tended to underrate their instructional quality because it would
seem boastful and arrogant if they gave themselves the highest rating
on a scale of 4. On the other hand, weak instructors tended to overestimate their instructional qualities. The above points were
substantiated by Blackburn and Clark's (1975) study. From the findings of their study, they reported little agreement between faculty
self rating on overall teaching effectiveness and ratings by students,

colleagues, and administrators. The three last groups, however, did agree substantially on how they rated teachers at their institution.

The other commonly used method of faculty evaluation was peer evaluation, also referred to as classroom visitation by colleagues. The method had its opponents and proponents. Classroom visitation had certain weaknesses. It could be time consuming and there was also the problem of rater reliability. The method also tended to provoke instructor anxiety, especially among untenured faculty. In addition, the observer could screen the teacher's performance too much through his/her own "tinted glasses" - selective perceptions of what constituted good teaching.

Proponents of self evaluation such as Hoover (1980) argued that "since students are in a poor position to judge the course content and subject competence of the teacher, these must be the responsibility of professional colleagues" (p. 342-343). Bayle (1967) gave two reasons why he considered colleague evaluation beneficial to faculty: 1) colleagues provided teachers with a trustworthy critique of classroom activity and course organization as could be found during the visitation; and 2) colleague evaluation constituted an essential element of feedback to the faculty member. Gage (1961) pointed out that "when a teacher knows that he is being watched by someone whose opinion will determine his promotion or salary, his/her performance may depend more on his nerve than on his teaching skill" (p. 19). Winthrop (1966) opposed colleague evaluation because he felt teachers who were out of step with values of colleagues, no matter how effective as teachers, will tend to be unfavorably judged in a classroom visit. This, he thought, could ossify teachers into intellectual

conformity. Hunter (1966) denounced the method because he saw it as a great threat to faculty morale. Seldin (1981) observed that although many educators had written position papers supporting or opposing class-room observation, only a few had actually conducted studies of the reliability and validity of colleague visitation. He cited, among others, Hunter, Wilson and Dienst (1971), Dwyer (1972), and Kulik (1974) as researchers who found close agreement between faculty and student ratings of the best and/or worst teachers.

On the other hand, Centra (1975), one of the extensive researchers and writers in the field of faculty development and evaluation, arrived at a different view. In his study (Centra, 1975) comparing colleagues ratings of faculty based on classroom visitation with student ratings, Centra found colleagues ratings exceptionally generous compared to those of students. Centra believed the colleagues ratings were less reliable than student ratings because of what he saw as a built-in-colleague bias. In an article entitled, "The How and Why of Evaluating Teaching", Centra (Spring, 1977) concluded that ratings based primarily on classroom observation were generally not reliable enough to use in making decisions on tenure and promotion, at least not until faculty members had invested much more time in visitation. What was evident from the above analysis was that colleague evaluation would be more important and useful if they were used more periodically and as formative evaluation tool rather than for purposes of summative evaluation.

Finally, there was student evaluation which was probably the most commonly used method of evaluating faculty performance. Like the other methods of evaluation, student evaluation also had its positive

and negative aspects. If effectively conducted, student evaluation produced data that allowed for valid comparisons of teaching performance, even if the differences in quality production were not differently measured or compared (Bergquist and Phillips, 1975). As Miller (1975) stated,

. . . students are in the best position to judge whether course objectives are clear and the course is well organized, whether the instructor explains clearly, allows dissent, is patient, is interested in students, and how he compares with other instructors with whom they have taken courses (pp. 31-32).

Menges (1971), Miller (1974), and Grasha (1974) also noted that students were capable of identifying practices that increased their knowledge.

Furthermore, student evaluation could help to increase teacher's accountability in the classroom and to provide a medium for student-faculty interaction. Eble (1972) stated that student evaluation of teaching seemed to contribute important data to the reward system that was not easily available from other sources. The reason was that students were direct observers of the teacher and the teaching process, even more than an instructor realized.

A low evaluation by students might have resulted in defensive behavior on the part of the faculty and this could block the process of change. Similarily, an instructor might be rated low by students for reasons not of his own making. Schwartz (1980) identified such factors to include: the time of the day the class is scheduled, the length of the class, the size of the class, weather, and the point in the quarter or semester at which the questionnaire was administered. Moreover, students may not be willing to criticize the weakness

of teachers for fear of being identified and victimized. To minimize this problem, Hoover (1980) suggested that,

Complete anonimity must be guaranteed students - evaluation must not be asked to enter written comments on them, the instructor should not be present when the evaluations are completed; and students be assured that their evaluations will be analyzed and suggestions will be taken seriously (p. 341).

Although there appeared to be a lot of skepticism about student evaluation, research studies by McMartin and Rich (1976) and Marsh and Kester (1976) suggested that faculty generally considered student ratings as legitimate in tenure and promotion decisions. Studies by Wilson (1932), Gage (1972), Centra (1972), and McKeachie (1975) indicated that there was a positive relationship between student ratings and teaching improvement. However, such teaching improvement was contingent on three specific influences identified by McKeachie (1975, p. 74):

- 1. whether the ratings turned up an appraisal which was new to the teacher.
- 2. whether the teacher was motivated to improve, and
- 3. whether the teacher knew how to go about improving.

The usefulness of student rating in decision making became more creditable when one took into account the degree of reliability and the moderate validity of student ratings as revealed in several studies. Seldin (1981) pointed out some of these important studies. Studies measuring student rating reliability (stability and consistency) that reported high level of correlation both in time and internal stability included: Lovell and Hanner (1955); Remmers (1959); Costin (1968); Spencer (1968); Spencer and Aleamoni (1970); Harvey

and Barker (1970); Costin, Greenough, and Menges (1971); and Murray (1973). Thus, we could, to a high degree, count on the reliability of student ratings.

However, because of the sensitive nature of faculty evaluation, no one method of evaluation could be considered good enough or totally complete in itself, particularly when the information to be collected was used for administrative decisions. What was important, therefore, was to use two or more methods of evaluation acceptable to both faculty and administrators.

Models of Faculty Evaluation

There have been different models or approaches to faculty evaluation, but certain elements were common to all. Moomaw (1977), in reporting the extensive survey and case studies undertaken by the Southern Regional Education Board (SRED), identified four elements: criteria, standards, evidence, and process, that were common to all approaches of faculty evaluation — formal or informal and systematic. The criterion element referred to the specific knowledges, skills, or art that was to be evaluated. The standard element was the level of knowledge, skill, or art to be expected, required, or achieved. The evidence element was the information or data used to determine the level of achievement, and the process element was composed of the procedures that had been followed or required in gathering the evidence and in applying standards to appropriate criterion.

Moomaw (1977) suggested four models of evaluation: the procedural model, the quantitative-mathematical model, the learning-outcomes model, and the growth contract model. In the procedural model, the

stated purposes of the evaluation were heavily formative but the results required the involvement of faculty members as both sources of information and evaluators more than in the other models. Generally, the evaluators in this model focused more on the specificity and objectivity of the criteria and the process elements, while allowing standards to be more subjective and vary within the institution.

In the quantitative-mathematical model, evaluation emphasized criteria, standards, and information. The importance of process was de-emphasized. The model also emphasized the use of many forms of evidence compiled from students, classroom visitation, and examinations of materials, and a numerical value was then assigned to each. Evaluators would not stress multiple approaches to examining the same materials.

Furthermore, there was the learning outcomes model where teaching effectiveness was judged by whether or not the students had learned. The model was concerned with and emphasized purposes, outcomes, and impact of instruction, criteria, standards, and evidence. It gave little attention to process. Moomaw (1977) pointed out that this model was "most likely to be found in colleges and universities with management by objectives (MBO), behavioral or instructional objectives, competence-based criteria, or a systems approach to instruction" (p. 87).

Finally, there was the contract model to faculty evaluation.

According to Moomaw (1977), the contract model seemed to work well on collegial and congenial campuses. An institution using this model saw each faculty member as an individual with his or her own idiosyncracies. The institution, therefore, helped each faculty member

assess his or her own situation, responsibilities, and opportunities both in terms of performance and self development. Although this model required time and effort on the part of colleagues and administrators, it would no doubt be a useful evaluative model for the purpose of summative evaluation. It served as a meaningful device for achieving effective faculty development efforts as activities and programs would have to be directed toward already identified deficiencies and agreed upon faculty development needs.

General Guidelines and Strategies for
a Successful Faculty Evaluation

Program

The problem of developing accurate and acceptable measuring rods for faculty performance which had led to the use of unreliable methods, vague criteria, and uncertain performance standards, have undermined academic faith in faculty evaluation. There were also the associated social and attitudinal problems. Most faculty rejected colleague classroom visitations, even by qualified personnel using acceptable tools of measurement because they considered them as an invasion of professional privacy (Seldin, 1980). In spite of these barriers to faculty evaluation, a successful faculty evaluation program would still be possible if certain guiding principles were followed.

Miller (1972) and Eble (1970) suggested certain useful guidelines which could assess and make possible successful faculty evaluation.

Miller (1972) recommended a six step approach:

- 1. obtain administrative support for the plan,
- 2. show enthusiasm for and allow sufficient time to implement the evaluation program,

- 3. improve the rating instrument and reduce anxiety among faculty,
- 4. anticipate faculty resistance and deal with it positively,
- 5. openness-add faculty forums during the development stage of the instrument while encouraging students to attend, and
- 6. provide sufficient time for the overall process of implementation, and spell out follow-up procedures to evaluate the system itself.

Elbe (1970) offered a ten-step approach:

- 1. obtain faculty cooperation,
- 2. determine purposes, objectives, and uses for evaluation data,
- 3. determine evaluation methods and procedures,
- decide who, what, where, when the evaluation system will be implemented as well as the student role in the total assessment system,
- 5. establish a fixed office to administer the evaluation program,
- 6. keep all segments of the campus community informed on a continuous basis,
- 7. determine the financing of the evaluation system,
- 8. maintain student and faculty interest,
- 9. conduct follow-up studies to assess the effectiveness of the program and improve it, and
- 10. the evaluation to other efforts for the recognition, reward, and improvement of instruction and other faculty development needs.

Finally, Nelsen (1981) stated that the 1977 American Association of Colleges (AAC) project on faculty development through interviews provided four important guidelines necessary to create a positive and comprehensive program of evaluation in which faculty would have a relatively high degree of trust. The four guidelines were as follows:

 the utilization of a variety of sources of data: student evaluation, classroom visitation, alumni videotapes, and self evaluation,

- 2. the existence of opportunities for both summative and formative evaluation,
- 3. heavy involvement by the faculty in designing the system, and
- 4. the extension of the system to all faculty in the college or university (p. 62).

The Kansas State IDEA program and the Purdue CAFETERIA System were two among the several nationally recognized faculty evaluation programs.

Evaluating Faculty Development Programs

For faculty development programs to be more meaningful, effective, and beneficial, there should be a systematic in-built periodic evaluation of these programs. Program evaluation was the "process whereby faculty development activities or programs can be interrelated with anc compared to program expectations, goals, and values" (Bergquist and Phillips, 1977, pg. 286). In determining program evaluation, certain elements were to be considered:

- 1. the judgment of authorities about a program,
- 2. the opinions of program staff,
- 3. the opinions of those affected by a program,
- comparison of actual program outcomes with expected outcomes,
 and
- 5. comparison of an executed program with its design (Provus, 1971).

Dean Whitla, at Harvard College (cited by Nelsen, 1981, p. 71), made five suggestions for incorporating evaluation into a development program:

1. assign someone the task of evaluating at the beginning of the program,

- 2. put together a pre-program and post-program evaluation design, and in the process explore and profit from what others are doing,
- 3. combine several different evaluation methods,
- 4. always strive for objectivity, and
- 5. stress the use of your evaluation results.

It had been recognized that faculty development programs shared a number of characteristics. Wergin (1977) identified four such characteristics. Those shared characteristics were summarized as follows: 1) faculty development programs tended to be at the periphery of the college or university; 2) a faculty development program like the larger institution itself, serves a number of different publics - alumni, students, administrators, faculty - and must react to often conflicting expectations. As Wergin (1977) succinctly stated:

Faculty development programs exist in a world of judges. Staff members have a set of implicit standards; faculty consumers have others; antagonistic faculty members and university administrators may have still others. Evaluating a program with an eye only for one or two of these groups risk generating data that fail to be taken seriously. All relevant publics must be considered, and their expectations of the program gleaned . . . (p. 60).

3) a faculty development program must compete with other users of faculty time; and 4) largely because of their marginal status, faculty development programs have been plagued by a lack of readily available data that would indicate the nature and degree of their impact on the university. In short, the effects of these programs are not immediately apparent. These characteristics, according to Wergin, had enormous implications for program evaluations.

Purposes for Evaluating Faculty

Development Programs

There were several reasons identified in the literature for evaluating faculty development programs:

- 1. It was required by the organization which funds the program be it private foundation, federal agency or the institution itself (Bergquist and Phillips, 1977, p. 287).
- 2. To determine if the program had in fact reached its original objectives.
- 3. To document success based on criteria which were considered important by significant and influential organizational leaders.
- 4. To help (a) members of the program staff to improve their performance, (b) provide feedback to staff members about their own assumptions about the program should and does function and about the success of their own individual performance, and (c) help the developer of the faculty development programs or productions through the use of research methodology to effect necessary changes in the on-going program formative evaluation.
- 5. To expedite decision-making by comparing expected accomplishments with actual functioning and results (Dressel, 1976).
- 6. To determine the potential influence of the programs on other activities in the institution.
- 7. To delay decision or justify and legitimize a decision already made and even to indicate the program in the eyes of its constituencies (Weiss, 1972).
- 8. To ensure (a) the quality of the product, (b) to ensure the quality at minimal cost, and (c) to help management or administration make decisions about what should be emphasized and why.

Evaluation Models for Faculty

Development Programs

The search for the one most effective approach to evaluating faculty development programs gave rise to the development of several

different evaluation models. Bergquist and Phillips (1977) suggested seven models for evaluating faculty development programs. These models were:

- 1. historical descriptive,
- 2. measurement correlational,
- 3. quasi-experimental,
- 4. developmental intensive,
- 5. action research,
- 6. illuminative, and
- 7. consultative.

The historical-descriptive model for evaluating faculty development programs focused on the systematic and objective reconstruction of the past history of a program. Facts about the program were collected, evaluated, verified, and synthesized to reach defensible conclusions. This model was most appropriate when the primary objective was to lend credibility to the faculty development program. The historical-descriptive was the most commonly used model in higher education, especially in accreditation procedures that each institution must periodically face.

On the other hand, the measurement-correlation model emphasized the accumulation of quantitative data that allowed the evaluator to investigate the extent to which variations in one program factor corresponded with variations in other factors.

The third model, quasi-experimental, was concerned with offering a useful and necessary compromise between: 1) the needs of an evaluator for a carefully controlled experimental setting in which to study the impact of a program, and 2) the needs of a program staff for

maximal flexibility and minimal interference in serving the changing needs of the institution.

The fourth approach identified by the authors, the developmentintensive model, was more or less a time-series quasi-experimental
design. This model focused on individual cases. For instance, it
examined intensively the impact of a faculty development program on
a single faculty member or department. This model was particularly
effective as a means of informing external publics about how well the
program worked.

Similarly, the action model was a variation on a quasi-experimental design. However, the principal focus here was the clarification of program goals, success criteria and focal activities, and outcomes.

Furthermore, there was the illuminative program evaluation model developed by Malcolm Parlett and the Nuffield Foundation in London, England. The model attempted to discover and document what it was like to be involved in a particular program and to discern and discuss a program's most significant features, the recurring components, and critical processes. Three stages that overlapped and were functionally related characterized the illuminative model. The first stage involved the researcher's observation of the program without perceptions. The second involved the selection of specific aspects of the program for more sustained and intensive inquiry. The third stage consisted of search for general principles that underlied the organization of the program. According to Bergquist and Phillips (1977), this approach was now being used to evaluate the forty-three faculty development

programs that were being assisted by the Council for the Advancement of Small Colleges.

The seventh program evaluation discussed by Bergquist and Phillips (1977) was the consultative model. This model built upon both action-research and illuminative evaluation models. It emphasized the role of the evaluator as a source of, not only judgmental and/or descriptive feedback, but also as a source of information about strategies, activities, and skills that could help program staff move from its current state to a desired state. The model was labeled "consultative" because of the additional role of a consultant (suggesting strategies, activities, and skills to the program director or staff) that was often assumed by the program evaluator.

Besides the seven program evaluative models suggested by
Bergquist and Phillips (1977), there were other identifiable models
in the literature of program evaluation. Two other models, the "output" model and "outcomes" model, were identified in the works of
Weiss (1972).

The output evaluative model was simple and could be easily applied to evaluate a faculty development program. According to Rhodes (1080), in the output model, the standards of achievement and success of a staff development program were determined on the basis of the efforts made and the activities performed. Quality was directly related to the amount of work that is carried on, the number of workshops presented, conferences held, and newsletters published. Especially important was "patronage measures of 'how many came' or 'how many enrolled'" (Rhodes, 1970, p. 202).

In the "outcomes" model, unlike the "output" model, achievement and success of a development program were determined on the basis of the "effects" or "impacts" of the program on helping participants achieve the goals for which the program was undertaken. An investigation of how the development program was working could proceed in two The first was what Weiss (1972, p. 4) called "the impressionistic or journalistic inquiry". Under this technique, an individual, a team, or a committee was expected to proceed very much as a good journalist would, ask questions, and talk to the program director, staff members, and recipients of service. They sat in on sessions, attended meetings, looked at reports, and usually in a few weeks or months came up with a report. Generally, this technique generated a lot of useful information, but it was limited by its reliance on the skill and insight of the investigators and on their objectivity as well as on what people were willing to tell. The second assessment technique often used in this model was the administration of questionnaires or interviews that asked people's opinions about the program. It had "the merit of providing clues about the program's strenghts and weaknesses" (Weiss, 1972), p. 5).

Furthermore, a process oriented evaluative model for faculty development programs had been suggested by Rhodes (1977a). He referred to it as the instructional model. Staff development was here considered to be a form of a continuing professional education. Evaluation of a faculty development program, therefore, was equivalent to evaluation of a continuing education program for staff.

Usually, the focus of the evaluation was on the design and implementation of instruction for a particular adult clientele with specific

personal and professional needs and goals. In this situation, the clientele were faculty members themselves who became a new type of "non-traditional" student clientele in higher education.

Besides the "instructional" faculty development program evaluation model, Rhodes (1980) also identified another evaluation model called the "proximity" program evaluation approach. According to this model, programs (instructional) were judged by the extent to which elements such as "needs assessments", "referent situation analysis", "participant involvement", and "supportive environment" were recognized and incorporated into the program. Learning and subsequent modification of professional performance by participants in faculty development activities were viewed as achievements of the participants, not the program. "Such changes (or lack of them) may be used as data in evaluating a program, but do not in themselves constitute measures of success or failure" (Rhodes, 1980, p. 203).

Furthermore, there was the "discrepancy" program evaluation model formulated by Provus (1973). This approach had similar characteristics with the "proximity" model formulated by Rhodes (1980). However, the "discrepancy" model possessed five stages of program evaluation. These stages included: 1) design, 2) installation,

3) process, 4) product, and 5) cost. Basically, the discrepancy evaluation model used the first three stages of evaluation for program development and stabilization and the fourth and fifth stages for program assessment.

The several faculty development program evaluative models outlined above were a reflection of the dissatisfaction with, or the inavailability of any one all-encompassing model that could be used for all types of faculty development programs under all conditions. Even if there was one, would it resolve the dilemma? Rhodes (1980) sort of provided the answer when he stated,

Even if one model is applied rigorously and sophisticated measurement devices are employed, questions raised by the other models are left unanswered. If all are used, the conflicting results are such that no adequate decisions about quality can be made . . . (p. 207).

This does not mean, however, that program evaluation models should not be used. They could be more useful and more effective if they were guarded by a sound systematic evaluation procedure.

Bergquist and Phillips (1977) suggested eight steps that more models or approaches to the evaluation of faculty development programs could follow. These steps were:

- 1. identification of program goals, priorities, and values:
- 2. determination of acceptable criteria for measuring the success of the program;
- 3. identification of program activities and outcomes that are to be evaluated;
- 4. identification of the procedures, instruments, and strategies to be used in evaluating the identified program activities and outcomes;
- 5. collection of information about the program activities and outcomes that are to be identified;
- 6. analysis of data that are collected with specific reference to the relationship between the data and success criteria;
- 7. presentation of data and analysis in a manner that is conducive to creative problem solving; and
- 8. evaluation of the evaluation process by both evaluator and client (p. 290).

Obstacles to Successful Implementation of

Faculty Development Programs

The implementation of faculty development programs proved problematic for college administrators and other faculty developers

for a number of reasons. One of these was what could be described as the "diagnostic" approach. This approach, according to Nelsen and Siegel (1980) made faculty become skeptical and come to develop the perception that "they were being dealt with", "administered to", or that they were "ill" and "in need of therapy" (p. 2). These authors added:

Too often, faculty developers with little forethought and input from faculty themselves, tried to develop programs which they hoped would magically transmogrify, ailing faculty into productive scholars and teachers. Turgid academics would be transformed into humanistic educators, shoddy scholars would become dynamic contributors to their discipline. And dutiful but quiescent faculty would become active participants in campus politics . . . Programs initiators . . . clearly overestimated the powers of their ideas to bring about change and, probably unwittingly, assumed the posture of therapists administering care to suffering faculty (p. 2).

Other barriers to successful implementation of faculty development programs were attributed to lack of knowledge and imagination among program designers, poor design, the tendency to use only on approach to faculty development, and the often unhealthy intolerance among faculty toward others' opinions and actions - the lack of peer support.

Crow (1976) identified several problems which contributed to the failure of speedy implementation of faculty development programs. These problems included:

- the introduction of a new series of activities to an already overworked faculty;
- 2. the tendency of academic not to put much faith in their own peers to help them;
- 3. the fear (sometimes justified) that evaluation of instruction is being used more for personal decisions (i.e. punitively) than for one's personal benefit (i.e. positively);

- 4. the inability of faculty members to dissociate evaluation systems and improvement systems;
- 5. the fact that faculty (especially untenured and on some campuses, even tenured) have reason to feel their jobs are on the line;
- 6. the fact that it is difficult for one person to change in isolation, particularly without an enabling environment;
- the fact that academic colleagues have not always been known to be kind to instructional innovators;
- 8. the existence of threat -- all kinds (p. 9).

Finally, Hammons and Wallace (1976), in their article entitled,
"Sixteen Wasy to Kill a College Development Program", listed a
number of negative postulates and activities that could lead to
program failure. These sixteen postulates were as follows:

- 1. failure to provide an acceptable rationale for why a faculty development program is needed;
- failure to assign responsibilities and authority for planning;
- 3. failure to involve faculty in planning;
- 4. failure to provide sufficient flexibility by providing a single faculty development program;
- 5. failure to balance institutional priorities and individual needs;
- 6. failure to make participation voluntary;
- 7. failure to have administrative staff participate in faculty development activities;
- 8. failure to include part-time faculty;
- 9. failure to reward participation;
- 10. failure to exercise common sense in scheduling;
- 11. failure to consider the instructional techniques to be used in the program;
- 12. failure to mix internal and external resources;

- 13. failure to publicize the program adequately;
- 14. failure to evaluate the results;
- 15. failure to provide adequate funding; and
- 16. failure to provide critical non-monetary support for the program.

Factors Facilitating Implementation of Faculty Development Programs

Several factors which can contribute to the successful impementation of a faculty development program have been identified. Hirschowitz (1975) suggested that all levels of the institution should have free access to information about the program, its evolution, content, and intent. There should be administrative support and this should be reflected in financial commitments and in sending out the right and clearer signals to faculty as to what is expected of them. The participants (faculty) should be involved in the preplanning, design, implementation, monitoring, evaluation, and further evolution of the development program. Similarily, Becker (1981) suggested that participation should be voluntary. Hirschowitz (1975) also suggested that faculty development programs, to be successful, should be based on adult learning models - collaborative problem solving: refinement of successful trial and error efforts by peers, and by imitation and identification. Good management of development programs, colleague tolerance, and supportive atmosphere for each other, and the flexibility of the program to meet vareity of needs by providing for both individual and corporate development

activities, were other factors for successful program implementation suggested by Hirschowitz (1975).

Moreover, Stordahl (1981) reworded Hammons and Wallace points in the positive and drawing upon some other sources yielded sixteen postulates for successful developmet programs. These points were as follows:

- 1. provide an acceptable rationale for why a faculty development program is needed;
- 2. assign responsibility and authority for planning;
- 3. involve the faculty in planning and encourage them to be part of the administration of the program so that they might come to feel the ownership of the program rest with them - the faculty (Redditt and Hamilton, 1978) (This type of ownership builds commitment and a sense of responsibility for and to the program);
- 4. provide sufficient flexibility (It must also be sensitive to the individual differences among faculty. Individual approaches must be balanced by corporate or collegial activity.) (Nelson, Summer 1979);
- 5. balance institutional priorities and individual needs;
- 6. make participation voluntary (Among authors who have pointed to the voluntary nature of their programs as one key to success are Hoyt and Howard (1978), Davis (1979), Nyquist (1978), Ferren and White (1977). Ciampa (1980, p. 22) also alluded to this same point when he stated, "successful faculty development programs are voluntary development programs.");
- 7. administrative staff should support and participate in development activities by attending workshops, seminars, team teaching, or by making secretarial help available;
- 8. include part-time faculty (Faculty members, tenure, full-time, and part-time should participate in the development program.);
- 9. reward participation (Such rewards could include awards for teaching and others such as financial and non-financial which include recognition, leadership positions, promotions, pay increases, released time, opportunities to visit other colleges, and funds to attend conferences and workshops.);

- 10. exercise common sense in scheduling development programs and provide continuity in the program;
- 11. consider the instructional techniques to be used in the program;
- 12. mix internal and external resources;
- 13. publicize the program adequately;
- 14. evaluate the results;
- 15. provide adequate funding.(Gross (1976-1977) emphasized this point when he pointed out, "to be maximally successful, faculty development programs must have budgetary support.. Budgetary support is the most tangible form of institutional support (p. 79).); and
- 16. provide critical non-monetary support for the program such as the adoption of a formal board policy advocating faculty development.

Finally, Nelsen (1981) suggested some incentives for faculty development. These were:

- 1. rewards such as promotion, salary increasingly linked to active faculty development efforts;
- 2. simple acknowledgement if not praise from an administrator or a faculty colleague;
- 3. providing an award for recognition of genuine development activities;
- 4. providing grants for faculty to pursue research, teaching improvement, or curricular development; and
- a changed total environment on campus an environment where standards, rewards, and expectations clearly call for continuing renewal.

Changed total environment was the greatest incentive to faculty development (Nelsen, 1981; Richardson, Jr., 1975).

While the above list was by no means exhaustive, one thing was clear: that there existed numerous principles and guidelines for institutions already implementing or wishing to implement faculty development programs.

Impacts of Faculty Development Programs

Kelley (1975) classified the outcomes of faculty development activities into two groups: indirect and direct outcomes. Indirect outcomes were represented by change in the behavior of staff members or the organization. Direct outcomes were defined as changes in student outcomes attributable to experiences of staff members in a staff development program or activity. Realistically, however, it is very difficult to show that substantial change in student performance has in fact occurred due to faculty renewal activity.

Generally, there were mixed reports from the research literature about the outcomes of staff development efforts and activities.

While some saw development programs as worthwhile and effective, others saw such programs as being inconsequential. One of such writers who believed faculty development programs had little or no effect on faculty was Davis (1976). He labelled many of the efforts to improve teaching through faculty development activities as "superficial and without much impact" (p. 109).

Gaff and Morstain (1978) reported findings from studies lending credibility to scanty information that the individual, the institution, and the students benefitted from faculty development programs. Kozma (1978) found that a group of faculty members who were given released time and extensive support to redesign a course adopted several instructional innovations. Those who received less support, nevertheless, increased their use of new approaches, but to a lesser degree: and, there was no measurable change in teaching techniques among a control group of faculty not involved in either program. Hoyt and Howard (1978) found in separate studies that students rated

teaching effectiveness of faculty who participated in teaching improvement activities significantly higher than that of their colleagues who did not participate.

Furthermore, drawing principally from the findings of an exploratory mid-project assessment of the PIRIT project, Gaff and Morstain (1978) reported a list of benefits indicated by participating faculty. The reported benefits included testimonies such as contact with increasing numbers of people from other parts of the institution, increased motivation or stimulation for teaching excellence, support or confirmation of teaching ideas and practices, and recognition of personal renewal. However, faculty reported receiving less benefits in skill in using new instructional techniques, better relationships with students, and greater support from the institution for their teaching.

Bowen (1980), the Provost of Beloit College, reported how his college, faced with declining enrollments and economic problems during the early 1970's, carried out a successful faculty development program. The program, funded in 1976 by a three-year grant of \$200,000 from a national foundation, achieved significant retraining of a number of continuing faculty members for new teaching responsibilities and maintenance of a high level of professional renewal and creativity among the faculty.

Similarly, Goldman (1978), who studied the impact of a faculty development workshop upon its participants' personality development, found that the workshop participants increased their scores on six of twelve scales of the personal orientation inventory (POI), while the control professors' scores remained the same. The findings of this

study provided support to the earlier studies of Cooper (1971), Gilligan (1974), and Kimbal and Gelso (1974) that faculty development workshops promote the self-actualization of its participants. The results of Vicere's (1981) survey also lent support to the positive impact of development programs on high faculty standards and improved teaching ability, but questioned any impact on research and scholarly ability.

Although the above testimonies and results of studies appeared mixed, there is clear evidence that the faculty, the students, and the institution did benefit from faculty development efforts, programs, and activities. The beneficial outcomes of faculty development programs were lucidly stated by Nelsen and Siegel (1980):

Lives have indeed been changed. Faculty have discovered new areas of academic inquiry, developed new teaching interests, designed new courses, utilized new modes of teaching, worked with colleagues from other disciplines, and written long-term growth plans. Administrators have seen improvements in scholarly output on their campuses, the design of new interdisciplinary courses which attract students and the increase of collegial interaction among their faculties. Campuses as a whole have been improved also, even in these difficult times. Committee systems have been streamlined and reward structures more clearly formulated as a result of faculty development (p. 3).

Summary

Although faculty development has been a phenomenon only recently emphasized, the last decade has witnessed numerous articles and books, studies and projects, and the establishment of various types of faculty development programs, activities, and practices in colleges and universities all over the country. Despite its wide acceptance, there still has not yet emerged a generally acceptable definition and

approach. The results have been several schools of thought which have led to the development of several approaches and models to faculty development. Faculty development has, however, come to be generally recognized as an essential new human technology for achieving educational improvement, individual development, and institutional vitality.

Several factors account for the great momentum with which faculty development has been gaining wide-spread attention in colleges and universities throughout the United States. These factors included the inherent deficiencies in the preparation of doctoral candidates for their future faculty positions; less faculty mobility; high tenure density (with "faculty salaries constituting between 50% and 75% of the total annual operating expense of a college or university" [The Change Panel on Academic Economics, 1976, p.40]); declining enrollments; aging faculty; the explosion of knowledge; shrinking resources available for higher education; less hiring of new faculty (Ph.D.s); the increasing heterogeneity of college students; the availability of new sophisticated instructional approaches, methods, and technology; public disenchantment with the quality of the products of higher education; and the demand for accountability and the presence of an articulate press, which, at times, could be negative in its reporting of the educational performance of colleges and universities.

An effective, comprehensive faculty development program should be based on a sound evaluation of faculty to determine stengths and weaknesses and preferred development needs. The program itself should be evaluated from time to time to determine its effectiveness. Before a faculty development program was launched, it appeared to be important to co-opt faculty in the pre-planning phase, during the on-going

process, and in the post development phase. A recognition of possible factors likely to hinder faculty development programs needed to be taken into account during the early phase of the program and those factors most likely to positively influence the successful implementation of the program should be emphasized. In other words, faculty development should be based on sound strategies, principles, and guidelines for successful program implementation. There is evidence supporting the conclusion that the individual faculty member, students, administrators, and the institution benefit from faculty development programs.

CHAPTER III

METHOD AND PROCEDURE

The purpose of this study was to determine faculty development needs and preferred development activities as reported by faculty members and academic administrators from selected Public Research Universities I. This institutional type was listed first with regard to quality as defined in the 1973 Carnegie Commission on Higher Education taxonomy of nine categories. The institutional type was still listed as number one in the 1976 revised version of the classification of institutions of higher education by the Carnegie Council on Policy Studies in Higher Education.

For the purpose of this study, this researcher has used the 1976 revised taxonomy by the Carnegie Council derived from policy studies conducted in 1976. This choice was dictated by the fact that the revised version of the Classification of Higher Education was more exhaustive and it took into consideration all the changes that had occurred in colleges and universities from 1970 to 1976. The embodiment of changes in the revised classification was vividly portrayed by Clark Kerr (1976), Chairman of Carnegie Council on Policy Studies in Higher Education, who in the preface to the revised edition of the Classification of Higher Education stated that "in the years since 1970, new institutions have appeared, old institutions have disappeared, and many institutions have undergone changes that have

called for their reclassification" (p. v).

The revised version of the classification of institutions of higher education by the Carnegie Council on Policy Studies in Higher Education divided institutions into six main categories and a number of sub-categories. Each of the categories was divided into public and private institutions. The main categories and sub-categories of the revised typology were as follows:

1. Doctorate-Granting Institutions

- 1.1. Research Universities I. These are the most research-oriented universities. They are 51 in number and are leading universities in terms of Federal Financial Support of academic science in at least two of the three academic years, 1972-73, 1973-74, and 1974-75, provided they awarded at least 50 Ph.D.s (plus M.D.s if a Medical School was on the same campus in 1973-74). (See list of Public Research Universities I in Appendix B.)
- 1.2. Research Universities II. These are either on the list of the 100 leading institutions in terms of federal financial support in at least two of the above three years provided they awarded at least 50 Ph.D.s in 1973-74, or are listed among the top 60 institutions in terms of total Ph.D.s awarded during the years 1965-66 to 1974-75. In addition, a few institutions that did not quite meet these criteria, but that have graduate programs of high quality and with impressive promise for future development, have been included in 1.2.
- 1.3. Doctorate-Graduating Universities I. These institutions awarded at least 40 or more Ph.D.s in at least five fields in 1973-74 (plus M.D.s if on the same campus) or received at least \$3 million in total federal support in either 1973-74 or 1974-75. No institution is included that granted less than 20 Ph.D.s in at least five fields regardless of the amount of federal financial support it received.
- 1.4. Doctorate-Granting Universities II. These institutions awareded at least 20 Ph.D.s in 1973-74 without regard to field, or 10 Ph.Ds in at least three fields. Few doctorate-granting

In all cases the term Ph.D. also includes the Ed.D. and other doctor's degrees.

institutions that are expected to increase the number of Ph.D.s awarded within few years were included in this subcategory.

- 2. Comprehensive Universities and Colleges
- 2.1. Comprehensive Universities and Colleges I. These institutions offer a liberal arts program as well as several other programs, including at least two professional courses of study, such as engineering and business administration. All of them have either no doctoral program or else an extremely limited one: most award masters degrees. All institutions in this group enrolled at least 2,000 students in 1976. If an institution's enrollment was smaller than this, it was not considered very comprehensive.
- 2.2. Comprehensive Universities and Colleges II. These colleges offer a liberal arts program and at least one professional or occupational program, such as teacher training or nursing. In the past, many of these institutions were teacher colleges but have broadened their programs to include a liberal arts curriculum. In general, private institutions with less than 1,500 students in 1976 were not included in this group even though they offered a selection of programs, because they were not regarded as comprehensive with such small enrollments.
- 3. Liberal Arts Colleges
- 3.1. Liberal Arts Colleges I. These colleges are referred to as the "most selective liberal arts colleges." They scored 1030 or more on a selectivity index developed by Alexander W. Austin² or they were included among the 200 leading baccalaureategranting institutions from 1920 to 1966 (National Academy of Sciences, Doctorate Recipients from United States Universities, 1958-1966, Washington, D.C., 1967).
- 3.2 Liberal Arts Colleges II. These are all the remaining liberal arts schools. They are referred to as "less selective liberal arts colleges."
- 4. Two-Year Colleges and Institutions
- 5. Professional Schools and Other Specialized Institutions
- 5.1. Theological Seminaries, Bible Colleges, and other institutions offering degrees in religion.

²The index has not been published but is available on tape from the Higher Education Research Institute, Los Angeles. It is based on average SAT scores (verbal and mathematical) or freshmen entering each institution, as reported in several institutional directories in the early 1970s.

- 5.2 Medical Schools and Medical Centers. This sub-category includes only those listed as separate campuses in the U.S. National Center for Education Statistics' Education Directory: Colleges and Universities, 1976-77. In some instances, the medical center includes other professional schools, for example, dentistry, pharmacy, or nursing.
- 5.3. Other Separate Health Professional Schools
- 5.4. Schools of Engineering and Technology. Technical institutions are included only if they award a bachelors degree and if their program is limited exclusively or almost exclusively to technical fields of study.
- 5.5. Schools of Business and Management. Business schools are included only if they award a bachelors or higher degree and if their program is limited exclusively or almost exclusively to a business curriculum.
- 5.6. Schools of Art, Music, and Design
- 5.7. Schools of Law
- 5.8. Teachers Colleges
- 5.9. Other Specialized Institutions. Includes graduate centers, maritime academies, military institutions, and miscellaneous.
- 6. Institutions for Nontraditional Study. This category includes those institutions oriented to nontraditional study, usually without a campus in the conventional sense. Examples are the State University of New York's Empire State College, modeled after Britian's Open University, and the Union for Experimenting Colleges and Universities (associated with Antioch) in Ohio.

As Levine (1978) pointed out, "these categories represent very different kinds of institutions. They differ with regard to faculty, students, and curriculum character" (p. xxv).

Research Universities I were selected for this study because of their high quality assessment and prestigious status.

Population

The population of this study was limited to faculty members and administrators from six Public Research Universities I in the North Central Region of the United States. According to the United States Government Manual 1982/83, the Agricultural Research Service (ARS) divided the nation into four regions: Northeastern, North Central, Southern, and Western regions (see Appendix C for each of the regions and the Public Research Universities found therein). There were nine institutions found in the North Central region: The University of Minnesota (Minnesota), The University of Iowa (Iowa), The University of Missouri (Missouri), The University of Wisconsin, Madison (Wisconsin), The University of Illinois, Urbana (Illinois), Purdue University, Main Campus (Indiana), Michigan State University (Michigan), The University of Michigan, Main Campus (Michigan), and Ohio State University, Main Campus (Ohio). These institutions were considered comparable in terms of faculty, students, curriculum character, degrees offered, and geographical continguity. Each of the institutions had an enrollment of more than 20,000 students and offered a large number of bachelors degrees, many masters degrees, and a large number of doctoral degrees. They were all research oriented universities

Sample

The sample for this study consisted of 441 respondents; 33 academic deans, 102 department heads, and 306 faculty members. It was limited to those colleges within the participating universities which were common to all: College of Agricultue, College of Business

Administration, College of Education, and College of Engineering. Deans from selected colleges/divisions/schools and department heads from selected academic departments were included in the sample. Faculty members were drawn by stratified selection technique. In each selected academic department, a faculty member was randomly selected from the ranks of full professors, associate professors, and assistant professors. Thus, three faculty members were selected for inclusion in the sample from each of the participating academic departments. Where the third stratum, assistant professors' rank, was not available, selections were made from the other two tenure-track ranks. First, a faculty member was randomly selected from among professors and a second faculty member was randomly selected from among the rank of associate professors.

The third faculty member was then randomly selected from among the ranks of full and associate professors.

The names of individuals comprising the population from which the sample and addresses of respondents were taken included:

- 1. College Catalogs, 1983-1984,
- 2. Microfiche College Catalog Collection, 1983-1984,
- 3. National Faculty Directorate, 1984, Vol. 1-3,
- 4. <u>Yearbook of Higher Education</u> 1982-83, Marquis Professional Publications, 14th Edition.

Instrument

Part I asked respondents questions about pertinent demographic information such as sex, college/academic department, current academic rank, tenure, age, years involved in higher education teaching, percentage of time devoted to teaching and teaching-related activities in present academic rank, years involved in university as an academic

administrator, and years served in present academic administrative position.

Part II asked faculty members to respond to several questions regarding faculty development needs, indicating how strongly they felt about each of the development needs by circling one of five Likert-type responses for each of the 21 items. For academic administrators, the instructions were stated differently: "Please indicate the degree to which you perceive each area of development as needed by your faculty via five Likert-type responses for each of the items below." Areas of faculty development needs were grouped for purposes of analysis into three categories of: personal, instructional, and institutional development needs categories.

Part III of the questionnaire asked faculty members to indicate the development practices they preferred most in meeting their development needs by circling one of five Likert-type responses for each of 24 items. For the academic administrators, the instructions to this part read: "Please indicate the development practice you prefer most in meeting your reported areas of faculty development needs." For purposes of analysis, faculty development practices were divided into two categories: individual and group development practices.

A copy of the questionnaire, as worded and used for this study, may be found in Appendix E. The items in the questionnaire which corressions to each category of faculty development needs and preferred development practices are listed in Tables II and III.

TABLE II

GROUPING AREAS OF FACULTY DEVELOPMENT NEEDS INTO THREE CATEGORIES*

1. Personal Development Needs Category

Improving skills in grantsmanship.

Improving research skills.

Training in personal growth techniques (as opposed to professional growth).

Keeping up with the discipline and greater understanding of the discipline.

Improving publication skills.

2. Instructional Improvement Needs Category

Improving teaching methodology (e.g. lecturing, discussion, tutorial, simulation, individualized instruction techniques).

Improving specific teaching skills (e.g. listening, communication, problem-solving, critical thinking, questioning).

Improving student testing techniques.

Improving course evaluation techniques.

Improving academic advising (academic guidance and career counseling).

Increasing one's skills in motivating students to learn.

Training in the application of instructional technology (e.g. audiovisual aids, micro-computers).

Improving interpersonal relations with students.

Training in psychology of learning and teaching.

Improving skills in helping students develop self-understanding and confidence.

3. Institutional Development Needs Category

Training in interpersonal relations with colleagues and/or administrators.

Training in leadership techniques.

Training in participative governance.

Training in improving decision-making skills.

TABLE II CONTINUED

3. Institutional Development Needs Category, continued

Training in conflict-management between/among colleagues. Training in problem-solving skills.

^{*}The insight for the grouping of the areas of faculty development needs into the three categories was based on Gaff's (1975) and Bergquist and Phillips' (1975) components of faculty development programs.

TABLE III

GROUPING FACULTY DEVELOPMENT PRACTICES INTO TWO CATEGORIES*

1. Individual Development Activities Category

Temporary load reduction to work on a new course.

Temporary load reduction to work on a new piece of research.

Travel funds to attend professional conferences to help faculty develop themselves professionally.

Sabbatical leave.

Institutional grants for innovative instructional projects.

Individual development plans (Growth Contract Plans).

Financial support to faculty for the purpose of attending short course programs in his/her discipline or related discipline(s) at another research university (short course not to be more than four weeks).

Faculty exchange programs.

Visiting scholars program to speak to faculty members on identified areas of interest and need to the academic department.

Released time to develop instructional project(s).

Attending short (not more than four weeks) evening courses in faculty member's discipline or related discipline(s) within the university (with the department paying for the course fees, where applicable).

2. Group Development Activities Cagetory

Workshops on personal growth skills.

Workshops and seminars on career planning and management for faculty members.

TABLE III (CONTINUED)

2. Group Development Activities Category, continued

Interdisciplinary teams for curricular improvement.

Internships or leaves to work in industry or government.

Workshops on instructional methodologies and technology.

Faculty team to redesign departmental curriculum.

Videotapeing of classes followed by a critical analysis of tapes by faculty and colleagues.

Demonstration of teaching and learning strategies.

Campus conferences/seminars on teaching effectiveness.

Workshops on participative problem-solving.

Workshops/seminars on conflict management.

Workshops/seminars on decision-making.

Faculty retreat.

^{*}The idea for this categorization of development practices into individual and group activities has been based on the taxonomy of J. Lucas (1978) at DeAnza College:

Establishing Validity of Instrument

According to Gay (1981, p. 110) validity "is the degree to which a test measures what it is supposed to measure." Validity may refer to either content validity or face validity, or construct validity. Construct validity is the extent to which a test measures a non-observable trait such as intelligence. Face validity refers to the degree to which a test appears to measure what it claims to measure.

According to Gay (1981), content validity:

. . . is the degree to which a test measures an intended content area. Content validity requires both item validity and sampling validity. Item validity is concerned with whether the test items represent measurement in the intended content area, and sampling validity is concerned with how well the test samples the total content area (p. 111).

A questionnaire with good content validity should adequately sample the content area related to the focused purpose of the study. Usually, content validity is determined by expert judgment. As Gay (1981) pointed out, generally, experts in the field or area covered by the tests are asked to assess its content validity. These experts then carefully and critically examine all the items on the questionnaire to determine and to make judgments concerning the appropriateness of each question, how well each represents the intended particular content area of research. This judgment "is based on whether all subareas have been included, and in the correct proportion" (p. 112).

In validating the questionnaire for the study, the researcher, through an extensive review of the literature, compiled a list of 32 faculty development needs embracing the three components (instruction, personal, and institutional development) of a comprehensive faculty development program. The list also consisted of 41 identified

faculty development activities/practices (see Appendix A, original instrument).

In order to test the content validity of the items to be included in the final questionnaire, the list of the 73 items identified through the review of the literature were sent to five nationally known experts in the area of faculty development (see Appendix F). They were asked to evaluate the items on a five point scale from one (minimum importance/relevance for inclusion in a faculty development program questionnaire) to five (maximum importance/relevance for inclusion in a faculty development program questionnaire). A maximum of 25 points on the 1 to 5 scale could be awarded to each item as a composite rating by the five expert judges. The responses by each expert judge were added together to determine the maximum points awarded to each item. All items with a total score below 15 were excluded from the final questionnaire. The developed questionnaire was then submitted to eight faculty members and five academic administrators on the Oklahoma State University Stillwater campus to recommend changes for improvement with regard to clarity, focus, readability, ambiguity, and double-barrelness (see Appendix G).

Reliability of Instrument

Reliability refers to the extent to which a test consistently measures whatever it purports to measure. Borg and Gall (1983) have defined it "as the level of internal consistency or stability of the measuring device over time" (p. 281). According to Gay (1981), reliability "is expressed numerically as a coefficient, a high coefficient indicates high reliability. If a test were perfectly

reliable, the coefficient would be 1.00" (p. 117). A high reliability coefficient indicates minimum error variance whenever a test was readministered.

There are several methods of estimating reliability of a test.

The Cronbach's Coefficient Alpha (a) was the method used to compute the internal consistency of the questionnaire. This method makes it possible to measure the reliability of an instrument through the use of statistics taken from a single questionnaire administration and also helps to avoid attenuating the reliability coefficient with experimental error resulting from a second administration of the same questionnaire (Angoff, 1953). Cronbach's Coefficient Alpha is a more comprehensive and conservative estimate of reliability. As Cronbach (1951) points out, alpha (a), which is a general form of the Kuder-Richardson 20, was found to have the following important meanings:

- a. **Q** is the mean of all possible split-half coefficients.
- b. **a** is the value expected when two random samples of items from a pool like those in the given test are correlated.
- c. a is a lower bound for coefficients of equivalence obtained by simultaneous administration of two tests having matched items.
- d. **a** estimates, and is a lower bound to, the proportion of test variance attributable to common factors among the items.
- e. a is a lower bound for the coefficient of precision (the instantaneous accuracy of this test with these particular items) (p. 331).

The calculated reliability by the Cronbach Coefficient Alpha method is 0.66 for the personal development needs category scores, 0.88

for the instructional improvement needs category scores, and 0.86 for the institutional development needs category scores, with regard to the areas of faculty development needs. Concerning the preferred development practices, the calculated Cronbach's Coefficient Alpha was 0.74 for the individual activities category and 0.88 for the group activities category.

Data Collection

Prior to the collection of data for the study, a letter was sent to each of the academic vice-presidents/provosts of the nine Public Research Universities I in the North Central region of the United States. The letter explained the purpose and the significance of the study and requested his/her permission to conduct the survey on his or her campus. The vice-president/provost was asked to indicate his/her consent or non-consent in a form to be returned in a stamped, self-addressed return envelope. Also enclosed in the letter was a list of divisions/schools/colleges and the academic departments that were to participate in the study, including a sample of the questionnaire used. for the study (see Appendix D). A follow-up letter, as well as an additional permission request form, a stamped, self-addressed, return envelope was mailed to those chief academic administrators who had not responded after twenty-one days.

By the time the collection of data was to begin, all nine universities had resonded as follows:

1. University: University of Missouri-Columbia

Respondent: Dr. Ronald F. Burn

Permission: Yes

2. University: Ohio State University, Columbus

Respondent: Dr. Diether H. Haenicke

Permission: Yes

3. University: Purdue University, West Lafayette

Respondent: Dr. Felix Haas

Permission: No

4. University: Michigan State University, East Lansing

Respondent: Dr. Clarence L. Winder

Permission: Yes

5. University: University of Illinois, Urbana-Champaign

Respondent: Dr. Edwin L. Goldwasser

Permission: No

6. University: University of Minnesota, St. Paul-Minneapolis

Respondent: Dr. Kenneth H. Keller

Permission: Yes

7. University: University of Michigan, Ann Arbor

Respondent: Dr. Billy E. Frye

Permission: No

erminorem. No

8. University: University of Wisconsin, Madison

Respondent: Dr. Bryant E. Karl

Permission: Yes

9. University: University of Iowa, Iowa City

Respondent: Dr. Richard D. Remington

Permission: Yes

Thus, of the nine universities initially invited to participate in the study, six (67%) of the vice-presidents/provosts granted permission for the study to be conducted on their respective campuses; three (33%) declined the invitation.

In order to compile a comprehensive list of faculty members and academic administrators from which a random sample would be made and to whom questionnaires would be sent, a letter was sent to the registrars of those participating institutions (see Appendix D). The letter explained the purpose of the study and requested the registrars to furnish the researcher with the most recent undergraduate and graduate catalogs for their institutions. All the registrars of the

participating universities furnished the researcher with the requested catalogs.

In order to maintain homogeneity in the sample, only the colleges/divisions most common to the six participating universities were selected for the study. Five colleges/divisions were common to five of the universities, however, the College of Education of Michigan State University, East Lansing, declined to participate in the survey. The sixth university, the University of Iowa, had no College of Agriculture, and, thus, had only four of the colleges most commonly found among the six participating universities. Thus, four of the universities studied had five of the most common colleges and the other two had four of the most common colleges participating within each university. (See Appendix A for university participation by college and academic department.)

After a mailing list of the respondents was compiled according to university, college and/or academic department, the respondents were coded for transfer to the questionnaires which were used in the study. Questionnaires were coded so that follow-up letters could be sent to non-respondents. The questionnaires, explanatory cover letters, and stamped, self-addressed, return envelopes were then mailed to the respondents. A follow-up questionnaire, including another explanatory letter and stamped, self-addressed return envelope, were mailed to each of the participants who had not responded 28 days after the first set of questionnaires had been mailed. Of the 33 deans to whom questionnaires were sent, 29 (87.9%) responded. Of the 102 department heads, 85 (83.3%) responded, and of the 306 faculty members, 210 (68.6%) responded. Thus, by January 8, 1984, when the tabulated data were

being sent to the Oklahoma State University Computer Center to be keypunched, an adequate number of responses had been obtained for the
study, as evidenced in Table IV. Questionnaires which were not properly
completed, however, were not used in the study.

TABLE IV

QUESTIONNAIRE RESPONSE

Population	Total Sent	Total Returned	Percentage
Deans	33	29	87.9
Department Heads	102	_{5.} 85	83.3
Faculty Members	306	210	68.6
Totals	441	324	73.5

Demographic Data

A review of the demographic data obtained from the 282 respondents whose questionnaires were analyzed for study showed that 235 (83.3%) were male. The age range for all respondents was from 29 to 68, with 24.5% being 39 or younger, 34.1% between 40 and 49, 29.2% between 50 and 59, and 11.2% 60 years and above. Faculty participants in the study fitted into the three groups according to professional rank:

45.7% were full professors, 32.3% were associate professors, and 22% were assistant professors. One hundred and forty-six (78.5%) of the faculty members were tenured. Nearly 57% of the faculty members devoted 50% of the time to teaching and teaching-related activities; nearly 37% of them had had more than 15 years of college teaching. Finally, 29 (32%) of the academic administrators had served more than six years in their present positions as either dean of a college or the head of an academic department (Table V).

Data Analysis

After the information on the returned questionnaires were tabulated on record sheets, the data were sent to the Oklahoma State University Computer Center where they were key-punched into data processing cards and verified by the staff. The data were computer processed by a statistical data programmer/analysist using programs available from the Statistical Package for the Social Sciences (SPSSX). The SPSSX program was also used to tabulate frequency counts for each of the variables, including the demographic data. The Statistical Analysis System (SAS) was used for the processing of the bar charts.

The following statistical techniques were used to analyze the data: frequency, percentage, mean scores, variance, and analysis of variance (ANOVA). For research questions 1-15, the mean score and standard deviation for each category were calculated and displayed in a table. The arithematic mean, according to Bartz (1981), "is the best single value which describes the central tendency of groups of scores" (p. 47). He (1976) defined variance "as a statistical measure of variability based on the average squared deviation of the individual

TABLE V

DEMOGRAPHIC DATA DESCRIBING RESPONDENTS

Variable	Frequency	Frequency (Percent)	Cumulative Frequency (Percent)
Sex			
		16.70	1.6 70
Female Male	47 235	16.70 83.30	16.70 100.00
Mate	233	05.50	100.00
Age			
29-39	68	24.50	24.50
40-49	97	34.10	59.60
50-59	81	29.20	88.80
60-69	31	11.20	100.00
Position			
Dean	27	9.60	9.60
Department Head	69	24.50	34.00
Full Professor	85	30.10	64.10
Associate Professor	60	21.30	85.50
Assistant Professor	41	14.50	100.00
Tenure			
Yes	146	78.50	78.50
No	40	21.50	100.00
Time % Devoted to Teach	ning		
less than 25%	19	10.20	10.20
26 - 50%	86	46.20	56.40
51 - 75%	57	30.70	87.10
76 - 100%	24	12.90	100.00
Years in Higher Educat:	ion		
Teaching			
2 - 8 years	60	32.00	32.00
9 - 15 years	46	25.00	57.00
16 - 22 years	43	23.00	80.00
23 - 29 years	23	12.00	92.00
30 - 40 years	1 4	8.00	100.00
Number of Years in Adm	inistration		
1 - 5 years	56	58.30	58.30
6 - 10 years	16	16.70	75.00
11 - 15 years	12	12.50	87.50
16 - 20 years	6	6.25	93.75
21 years and above	6	6.25	100.00

TABLE V (CONTINUED)

Variable	Frequency	Frequency (Percent)	Cumulative Frequency (Percent)
Years in Present Adm Position	ninistrative		
1-6 years	63	68.00	68.00
7 - 13 years	18	20.00	88.00
16 - 20 years	7	8.00	96.00
21 - 27 years	3	3.00	99.00
ZI Z/ YCUIS		1.00	100.00

TABLE VI DATA DESCRIBING THE NUMBER OF RESPONDENTS ACCORDING TO THE COLLEGE AND ACADEMIC DEPARTMENT

Variable	Frequency	Frequency (Percent)	Çumulative Frequency (Percent)
College			
Agriculture	51	18.1	18.1
Arts/Social Sciences/			
Sciences	104	36.9	55.0
Business			
Administration	31	11.0	66.0
Education	44	15.6	81.6
Engineering	52	18.4	100.0
Academic Department			
Agricultural			
Economics	14	5.5	5.5
Agricultural		* x	
Engineering	16	6.3	11.8
Animal Sciences	16	6.3	18.1
Biological Sciences	21	8.2	26.3
Physics	10	3.9	30.2
History	18	7.1	37.3
English	14	5.5	42.8
Politicial Sciences	16	6.3	49.1
Sociology	13	5.1	54.2
Accounting	9	3.5	57.7
Ecnomics	11	4.3	62.0
Finance	10	3.9	65.9
Educational			
Administration	14	5.5	71.4
Physical Education	12	4.7	76.1
Special Education	14	5.5	81.6
Chemical Engineering	17	6.7	88.3
Civil Engineering	20	7.8	96.1
Electrical			
Engineering	10	3.9	100.0
	*		

scores from the mean" (p. 270). Kerlinger (1978) pointed to the indespensibility of the arithematic mean and variability in attempts to answer scientific questions when he stated that:

control tendency, and (2) by calculating measures of variability ("Standard deviation is the measure of variability most often reported in research studies."

Borg and Gall, 1983, p. 365)... Solving research problems without these measures is next to impossible (p. 71).

Standard deviation is one form of variability. For research questions 16 through 20, the analysis of variance (ANOVA) was employed because of its appropriateness in comparing two or more group means to determine whether there existed any significant difference between or among the means. As Popham and Sirotnik (1973) noted, the analysis of variance is a clever statistical method for "testing for significant differences bewteen means of two or more groups" (p. 152). For the purpose of this study, F-ratio was considered significant at the $F_{\rm cal} > 0.05$ level.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Introduction

The first purpose of this study was to describe the responses of deans, department heads, and faculty members with regard to faculty development needs within the personal, instructional, and institutional development needs categories and perferred development practices within the individual and group activities categories. The second purpose of this study, closely related to the first, was to determine whether deans, department heads, and faculty members differed significantly from one another within the five categories: personal development, instructional improvement, and institutional development needs and individual and group development activities of faculty development practices.

There was a total of 282 respondents for this study, which included 27 deans, 69 department heads, and 186 faculty members. However, in the course of conducting the statistical program, some respondents were lost because of missing values. Therefore, only 244 respondents' data were used. *This included 23 deans, 58 department heads, and 163 faculty members

In order to accomplish the first purpose of the study, 15 research questions (questions 1 to 15) were developed. The data concerning each of these research questions were treated through use of

descriptive statistics, means and standard deviation. In order to accomplish the second purpose of the study, five research questions (questions 16 to 20) were developed. The data concerning each of these research questions were treated by means of inferential statistics: analysis of variance (ANOVA). Data concerning these latter research questions were tested for significance at the 0.05 level. The discussion which follows is structured in terms of the study's specific considerations.

Presentation and Analysis of the Data

Concerning Research Questions

One Through Three

- Research Question 1: What are deans' perceptions of faculty development needs within the personal development needs category?
- Research Question 2: What are department heads' perceptions of faculty development needs within the personal development needs category?
- Research Question 3: What are faculty members' perceptions of faculty development needs within the personal development needs category?

The deans', department heads', and faculty members' computed means and standard deviations (the positive square root of the variance) for the personal development needs are depicted in Table VII (also see Figure 1). As evidenced in Table VII, both deans and department heads perceived the personal development needs category of faculty development needs as much less needed by faculty than the faculty members reported themselves. As may be noted in the table and figure, the mean scores for faculty members was highest and that of deans second highest among the three groups.

TABLE VII

MEAN AND STANDARD DEVIATION OF DEANS', DEPARTMENT HEADS', AND FACULTY MEMBERS' SCORES FOR THE THREE CATEGORIES OF FACULTY DEVELOPMENT NEEDS

Position	Mean	SD*	N
Personal Development N	eeds Category		
Deans	12.57	3.25	23
Department Heads	11.74	3.71	58
Faculty Members	12.77	3.34	163
Entire Sample	12.51	3.44	244
Instructional Improvem	ent Needs Category		
Deans	26.13	5.75	23
Department Heads	21.33	6.17	58
Faculty Members	22.36	7.28	163
Entire Sample	22.47	6.99	244
Institutional Developm	ent Needs Category		
Deans	12.74	4.06	23
Department Heads	10.55	5.09	58
Faculty Members	11.01	4.91	163
Total Sample	11.12	4.89	244

 $[\]mbox{\ensuremath{\mbox{\tiny \#}SD}}$ and N denote standard deviation and number of respondents, respectively.

*

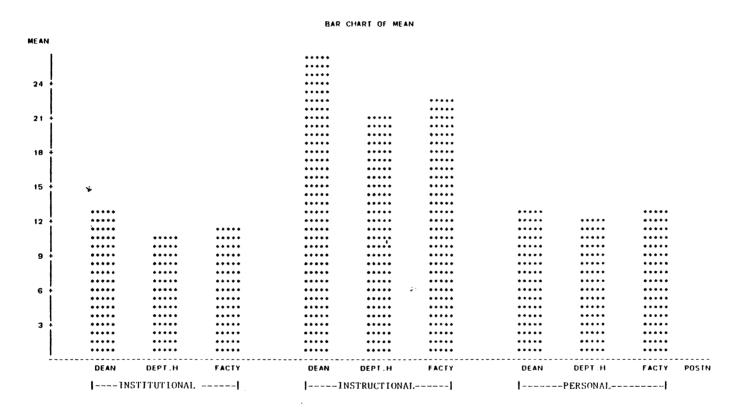


Figure 1. Mean Scores for Categories of Faculty Development Needs by Position.

Presentation and Analysis of the Data

Concerning Research Questions

Four Through Six

Research Question 4: What are deans' perceptions of faculty development needs within the instructional improvement needs category?

Research Question 5: What are department heads' perceptions of faculty development needs within the instructional improvement needs category?

Research Question 6: What are faculty members' perceptions of faculty development needs within the instructional improvement needs category?

The computed means and standard deviations of the responses of deans, department heads, and faculty members for the instructional improvement needs category may be found in Table VII (see also Figure 1). Looking at the three means, one can see that both deans and faculty members considered instructional improvement a much more needed area of faculty development than department heads did. As noted in the table and figure, the mean of the scores of the deans was highest and of the faculty members second highest among the three groups.

Presentation and Analysis of the Data

Concerning Research Questions

Seven Through Nine

Research Question 7: What are deans' perceptions of faculty development needs within the institutional development needs category?

Research Question 8: What are department heads' perceptions of faculty development needs within the institutional development needs category?

Research Question 9: What are faculty members' perceptions of faculty development needs within the institutional development needs category?

The means and standard deviations of the responses of deans, department heads, and faculty members for the institutional development needs category are presented in Table VII (see also Figure 1). The mean scores for both deans and faculty members were higher than that for department heads. This meant that both groups considered institutional development much more of a necessary area of faculty development than department heads perceived. Deans had the highest mean scores and faculty members the second highest among the three groups.

Presentation and Analysis of the Data

Concerning Research Questions

Ten Through Twelve

Research Question 10: What are deans' perceptions of faculty development practices within the individual activities category?

Research Question 11: What are department heads' perceptions of faculty development practices within the individual activities category?

Research Question 12: What are faculty members' perceptions of faculty development practices within the individual activities category?

The means and standard deviations of the responses of deans, department heads, and faculty members for the individual activities categories of the faculty development practices are presented in Table VIII and Figure 2. The mean scores for both deans and department heads were less than those for the faculty members. This seemed to indicate that the faculty members preferred many more individual development practices than did deans and department heads. Among the three groups, the mean score of the faculty members was the highest and that of the deans the second highest.

TABLE VIII

MEAN AND STANDARD DEVIATION OF DEANS', DEPARTMENT HEADS', AND FACULTY MEMBERS' SCORES FOR THE TWO CATEGORIES OF FACULTY DEVELOPMENT PRACTICES

Position	Mean	SD*	N*
Individual Development Pr	actices Category		
Deans	39.74	7.18	23
Department Heads	38.04	6.43	58
Faculty Members	40.21	6.34	163
Entire Sample	39.65	6.49	244
Group Development Practic	es Category		
Deans	37.44	8.37	23
Department Heads	32.29	8.90	58
Faculty Members	34.01	9.91	163
Entire Sample	33.93	9.64	244

^{*}SD and N denote standard deviation and number of respondents, respectively.



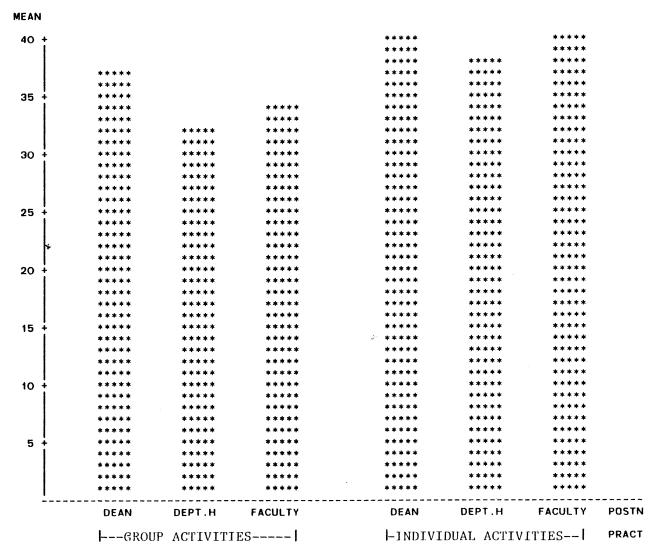


Figure 2. Mean Scores for Categories of Faculty Development Practices by Position.

Presentation and Analysis of the Data

Concerning Research Questions

Thirteen Through Fifteen

Research Question 13: What are deans' perceptions of faculty develop-

ment practices within the group activities

category?

Research Question 14: What are department heads' perceptions of

faculty development practices within the group

activities category?

Research Question 15: What are faculty members' perceptions of faculty

development practices within the group activi-

ties category?

The computed mean scores and standard deviations of the deans', department heads', and faculty members' responses for the group development activities category is displayed in Table VIII and Figure 2. As noted in the table, the mean score of the deans' responses was greater than that of both the department heads and faculty members. This seemed to indicate that deans were more likely to prefer group development activities for meeting faculty development needs than department heads and faculty members. The mean score of faculty members was the second highest among the three groups. The difference between the mean scores of department heads and faculty members, however, was smaller than the difference between the mean scores of faculty members and deans.

> Analysis of the Data Concerning Research Questions Sixteen Through Twenty

Analysis of variance (ANOVA) was the inferential statistic (statisitcal method) used to provide answers regarding each of the

remaining five research questions. The results of each analysis are reported immediately following the respective research question.

Research Question 16: Do deans, department heads, and faculty members differ significantly in their perceptions of faculty development needs within the personal needs category of faculty development needs?

TABLE IX

ANALYSIS OF VARIANCE COMPUTED FROM MEAN SCORES OF DEANS, DEPARTMENT HEADS, AND FACULTY MEMBERS FOR THE PERSONAL DEVELOPMENT NEEDS CATEGORY

Source	Degrees of Freedom	Sum of Squares	Mean Square	F Ratio	Critical F (0.05 Level)
Between	2	45.61	22.81	1.95*	
Within	241	2821.37	11.71		3.04
Total	243				

^{*}Not significant since $F_{cal} = 1.95 < 3.04$.

Since F.05; 2, 241 = 3.04 and $F_{\text{cal}} = 1.95 < 3.04$, the differnce among the mean scores of the three groups was found to be not statistically significant. Deans! and department heads' perceptions were, therefore, found to be virtually the same as those of faculty members with regard to the personal development needs category of faculty development needs.

Research Question 17: Do deans, department heads, and faculty members differ significantly in their perceptions of faculty development needs within the instructional improvement needs category of faculty development needs?

ANALYSIS OF VARIANCE COMPUTED FROM MEAN SCORES
OF DEANS, DEPARTMENT HEADS, AND FACULTY
MEMBERS FOR THE INSTRUCTIONAL
IMPROVEMENT NEEDS CATEGORY

Source	Degrees of Freedom	Sum of Squares	Mean Square	F Ratio	Critical F (0.05 Level)
Between	2	385.99	192,99	4.05*	
Within	241	11490.75	47.68		3.04
Total	243				

^{*}Significant since $F_{cal} = 4.05 > 3.04$.

Because the obtained F ratio (4.05) is greater than critical F (3.04) at the 0.05 significance level, the difference among the three means were found to be statistically significant. Since the analysis of variance did not specify which of the three sample means differed significantly from one another, the Scheffé's Test, a special post hoc t test, was used to determine where the significant difference lay. The Scheffé's Test is a general method that can be applied to all comparisons of means after an analysis of variance (Scheffé, 1953).

Pointing to the usefulness and conservativeness of the Scheffé's Test, and the conditions under which it should be used, Kerlinger (1973) stated that:

. . . if and only if the F test is significant (in an analysis of variance), one can test all the differences between means; one can test the combined mean of two or more groups against the mean of one other group; or one can select any combination of means against any other combination (p. 235).

He further noted:

Such a test with the ability to do so much is very useful. But we pay for the generality and usefulness: the test is quite conservative to obtain significance, differences have to be rather substantial. . . The Scheffé Test makes things precise - in a conservative way (p. 235).

Being appropriate, the Scheffé's post hoc t test was, therefore, performed on means of deans with department heads, department heads with faculty, and deans with faculty to determine where the significant difference(s) were among the three pairs of groups.

The t-values showed a significant difference in two of the three cells: deans with department heads and deans with faculty members (see Table XI). Since the respective mean scores for the department heads (21.33) and faculty members (22.36) were smaller than the mean scores of the deans (26.13), it was determined that the department heads' level of perceptions and those of faculty members were significantly lower than deans' level of perception with regard to the instructional improvement needs category of the areas of faculty development needs. The t-value was not found to be significantly different for the pairing of department heads and faculty members in the instructional improvement needs category.

TABLE XI

POST HOC t TEST ON DEANS WITH DEPARTMENT HEADS,
DEPARTMENT HEADS WITH FACULTY, AND DEANS WITH
FACULTY ON THE INSTRUCTIONAL IMPROVEMENT
NEEDS CATEGORY OF FACULTY DEVELOPMENT

PRACTICES

	Difference of Means	T Value
Deans with Department Heads	4.80	2.81*
Department Heads with Faculty	-1.03	-0.97
Deans with Faculty	3.78	2.45*
	· · · · · · · · · · · · · · · · · · ·	

^{*}Significant at $\mathcal{L} = 0.05$ level.

Research Question 18: Do deans, department heads, and faculty members differ significantly in their perceptions of faculty development needs within the institutional needs category of faculty development needs?

No statistical significance was found among the mean scores of the deans, department heads, and faculty members since $F_{\text{cal}} = 1.66 < 3.04$ (see Table XII). Therefore, faculty members' reported development needs appeared to be virtually the same as those development needs reported by both deans and department heads with regard to the instituional development needs category of faculty development.

TABLE XII

ANALYSIS OF VARIANCE COMPUTED FROM MEAN SCORES
OF DEANS, DEPARTMENT HEADS, AND FACULTY
MEMBERS FOR THE INSTITUTIONAL
DEVELOPMENT NEEDS CATEGORY

Source	Degrees of Freedom	Sum of Squares	Mean Square	F Ratio	Critical F (0.05 Level)
Between	2	79.15	39.58	1.66*	
Within	241	5736.40	23.80		3.04
Total	243				

*Not significant since $F_{cal} = 1.66 < 3.04$.

Research Question 19: Do deans, department heads, and faculty members differ significantly in their perceptions of preferred practices for meeting faculty development needs within the individual activities category of faculty development practices?

The mean scores of deans, department heads, and faculty members were not found to be significantly different from one another (see Table XIII). Therefore, the preferred development practices of deans and department heads were considered to be virtually the same as those of faculty members with regard to the individual activities category of faculty development practices.

TABLE XIII

ANALYSIS OF VARIANCE COMPUTED FROM MEAN SCORES OF DEANS, DEPARTMENT HEADS, AND FACULTY MEMBERS FOR THE INDIVIDUAL DEVELOPMENT ACTIVITIES CATEGORY

Source	Degrees of Freedom	Sum of Squares	Mean Square	F Ratio	Critical F (0.05 Level)
Between	2	202.42	101.21	2.44*	
Within	241	9995.23	41.47		3.04
Total	243				

^{*}No significance since $F_{cal} = 2.44 < 3.04$.

Research Question 20: Do deans, department heads, and faculty members differ significantly in their perceptions of preferred practices for meeting faculty development needs within the group activities category of the faculty development practices?

The mean scores of deans, department heads, and faculty members were found to be not significantly different from one another (see Table XIV). Therefore, the preferred development practices of deans and department heads for meeting areas of faculty development needs were considered to be virtually the same as those preferred by faculty members with regard to the group activities category of the faculty development practices.

ANALYSIS OF VARIANCE COMPUTED FROM MEAN SCORES
OF DEANS, DEPARTMENT HEADS, AND FACULTY
MEMBERS FOR THE GROUP DEVELOPMENT
ACTIVITIES CATEGORY

Source	Degrees of Freedom	Sum of Squares	Mean Square	F Ratio	Critical F (0.05 Level)
Between	2	439.03	219.51	2.41*	
Within	241	21973.65	91.18		3.04
Total	243				

^{*}Not significant since $F_{cal} = 2.41 < 3.04$.

When within cell correlations were performed to determine the relationship between the three development needs categories and the two categories of preferred development practices, the relationships between group development activities and institution development needs was the highest. The correlation between group development activities and instructional development needs was the second highest relationship (see Table XV).

Also, observing Table XV, one can see that the group development practices category generally correlated higher (than the individual development practices category) within all three categories of faculty development needs: personal, instructional, and institutional.

Deans, department heads, and faculty members, however, do not differ significantly from one another with regard to both the individual and group faculty development practices categories. Since the

correlation between the group development practices category correlated higher in all three categories of faculty development needs than the individual practices category, this seemed to indicate that deans, department heads, and faculty members, on the whole, preferred group activities to individual activities in meeting faculty development needs.

TABLE XV

CORRELATIONS BETWEEN THE THREE DEVELOPMENT
NEEDS CATEGORIES AND THE TWO
CATEGORIES OF FACULTY
DEVELOPMENT
PRACTICES

		**	
	Personal Development Needs Category	Instructional Improvement Needs Category	Institutional Development Needs Category
Individual Development Practices Category	0.303	0.355	0.311
Group Development Practices Category	0.457	0.548	0.642

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CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS,

AND RECOMMENDATIONS

A stagnant faculty is a scourge that will debilitate even the finest institution almost overnight: the quality of a college or university is inextricably interwined with the vitality of its faculty. An institution's single greatest strength resides in its human resources (Breslin, 1983, p. 57).

Chapter IV reported the statistical findings related to the specific research questions of this study. The present chapter will present a summary of the study, conclusions based on the findings, and a number of recommendations to improve the range of faculty development programs and point out directions for further research.

Summary

The first purpose of this study was to describe as factually and accurately as possible the responses of deans, department heads, and faculty members with regard to the personal, instructional, and institutional development needs categories of faculty development needs and the individual and group activities categories of faculty development practices. A second purpose of this study, closely related to the first, was to determine whether there were significant differences among deans, department heads, and faculty members with regard

to the three categories of faculty development needs and the two categories of faculty development practices.

The population for this study included deans, department heads, and faculty members of Public Research Universities I in the North Central region of the United States. The sample for the study was drawn from the six of nine Public Research Universities I in the region that granted permission to conduct the survey on their campuses. The universities that participated in the study were: University of Missouri; Ohio State University; University of Minnesota; University of Wisconsin, Madison; University of Iowa; and Michigan State University. Of the 33 deans sampled, 29 (87.9%) had responded; of the 102 department heads, 85 (83.3%) had responded; and of the 306 faculty members, 210 (68.6%) had responded. The final total of 244 respondents whose data were complete and were analyzed to answer the research questions included: 23 deans, 58 department heads, and 163 faculty members. In order to maintain homogeneity, the sample for the study was drawn from those academic departments which were most common to surveyed colleges/schools which were, in turn, most common to all the participating universities. These colleges/schools were: the College of Agriculture, College of Arts, Social Sciences and/or Sciences, the College of Business Administration, the College of Education, and the College of Engineering.

The data gathering instrument for this study was the "Faculty Development Needs and Preferred Development Practices Questionnaire".

The questionnaire consisted of three parts. Part I asked respondents pertinent demographic questions. Part II asked subjects to respond to several questions regarding faculty development needs. Part III asked

respondents to respond to several questions regarding preferred development practices for meeting faculty development needs.

Five mean scores and standard deviation scores were generated from the responses to the questionnaires for each of the three groups (deans, department heads, and faculty members):

- 1. the score for the personal development needs category,
- 2. the instructional improvement needs category,
- 3. the institutional development needs category,
- 4. the individual development activities category, and
- 5. the group development activities category.

In order to accomplish the first purpose of this study, 12 research questions were developed and analyzed by means of descriptive statistics: means and variance/standard deviation. In order to accomplish the second purpose of the study, eight research questions were developed (research questions 13 through 20) and analyzed by means of inferential statistics, analysis of variance (ANOVA). Significant differences were reported at $F_{cal} > 0.05$ level.

Findings

In analyzing and interpreting the data, the researcher was able to present the following major findings with regard to the purposes of the study. Six major findings resulted from the descriptive analysis of data in response to the first purpose of the study. The following findings were generated.

1. Deans' level of perceptions was higher than those of department heads with regard to all three categories of faculty

development needs. Deans were 0.83 points higher than department heads with regard to the personal development needs category; 4.8 points higher with regard to the instructional improvement needs category; and 2.19 points higher with regard to the institutional development needs category.

- 2. Faculty members' level of responses regarding faculty development needs appeared to be slightly higher than those of deans with regard to faculty members' personal development needs category (0.2 points). With regard to the instructional improvement needs and institutional development needs categories of faculty development needs, faculty members' level of responses appeared to be somewhat lower than those of deans. Faculty members' level of responses were 3.77 points lower than those of deans with regard to instructional improvement needs and 1.73 points lower with regard to institutional development needs.
- 3. Faculty members' level of responses were somewhat higher than those of department heads with regard to all three categories of faculty development needs. Faculty members' level of responses were 1.03 points higher than those of the department heads with regard to the personal development needs category; 1.03 points higher with regard to the instructional improvement needs category; and 0.46 points higher with regard to the institutional development needs category.
- 4. Deans' level of preferred development practices for meeting faculty development needs appeared to be considerably higher than that of department heads with regard to both individual and group categories of faculty development practices. Deans' level of preferred

development practices was 1.7 points higher than that of department heads with regard to individual development practices and 5.15 points higher than that of department heads with regards to group development practices.

- 5. Faculty members' level of responses appeared to be slightly higher than those of the deans with regard to the individual development practices category (0.47 points). With regard to the group development activities category, however, the faculty members' level of responses was 3.43 points lower than those of deans.
- 6. Department heads' level of responses appeared to be somewhat lower than those of faculty members with regard to individual development activities for meeting faculty development needs (2.17 points).

 Department heads' level of responses with regard to group development activities also appeared to be lower than those of faculty members (1.72 points).

Eight major findings resulted from the inferential statistical analysis of the data in response to the second purpose of the study. There were as follows.

- 1. Deans' and department heads' level of perceptions were not found to be significantly different from each other, neither did they differ significantly from the level of responses of faculty members with regard to the personal development needs category of faculty development needs.
- 2. Deans' level of perceptions was found to be significantly higher than, and differed significantly from, thelevel of perceptions of department heads with regard to the instructional improvement needs category of faculty development needs.

- 3. Deans' level of perceptions was found to be significantly higher than, and differed significantly from, the responses of faculty members with regard to instructional development needs category of faculty development needs.
- 4. Faculty members did not differ significantly in their level of responses from the level of perceptions of the department heads with regard to the instructional improvement needs category of faculty development needs.
- 5. Deans, department heads, and faculty members were not found to be significantly different from one another in their perceptions regarding institutional development needs category of faculty development needs.
- 6. Deans, department heads, and faculty members did not differ significantly from one another in their levels of preferred development activities for meeting faculty development needs with regard to the individual activities category of faculty development practices.
- 7. Deans', department heads', and faculty members' levels of responses with regard to the group activities category of the faculty development practices were not found to be significantly different from one another.
- 8. Group activities category of faculty development practices was more highly correlated with the three categories of faculty development needs than was the individual activities category with each of the three.

Conclusions

Based upon the findings, the following conclusions were drawn.

- 1. Deans' and department heads' levels of perceptions of the personal development needs category of faculty development needs were lower than the level of responses provided by faculty members in this category. This conclusion follows from the finding that the mean scores of deans and department heads were both lower on the personal development needs category than those of faculty members (see Table VII).
- 2. Level of perceptions of department heads, with regard to instructional and institutional development needs, were closer to the level reported by faculty members within these categories than the level reported by deans (see Table VII). Department heads, by virtue of their position, were closer to faculty than deans and were, therefore, more able to accurately reflect development needs as perceived by the faculty.
- 3. There was much greater concern among deans than department heads and faculty members with the need for improved instruction on the campuses. This conclusion follows from the findings that deans' level of perceptions (a mean score of 26.13) differed significantly from and was higher than the mean scores for department heads (21.33) and faculty members (22.36) with regard to the instructional improvement needs category of faculty development.
- 4. Faculty members preferred individual faculty development activities in meeting faculty development needs than this mode was preferred by both deans and department heads. This conclusion follows

from the findings that the arithematic mean score of faculty members was higher than those for both deans and department heads.

- 5. Group activities were more likely, on the whole, to be preferred by deans, department heads, and faculty members than individual activities, in meeting faculty development needs. Although deans, department heads, and faculty members did not differ significantly from one another with regard to the individual and group categories of faculty development practices (see Tables VIII and XIV), the conclusion follows from the findings which revealed a high correlation between group activities and personal, instructional, and institutional development needs (see Table XV).
- 6. Deans, department heads, and faculty members did not differ significantly from one another with regard to the institutional and personal development needs of faculty members at the time that the study was conducted. This conclusion follows from the findings that the analysis of variance conducted on the mean scores of the three groups on the institutional and personal development needs categories yielded no statistically significant difference.

Recommendations and Implications

for Practice

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Based on the findings and conclusions, the following recommendations have been made for the faculty development practitioner and for further research.

1. Deans, department heads, and faculty members involved in faculty development should assess the diverse needs of faculty members prior to the implementation of a development program. Special

attention should be given to the personal development needs of the individual faculty members.

- 2. Faculty development planners/practitioners should conduct a survey of those faculty members who would be participating in a renewal program to determine which development practices they would prefer in meeting their needs. Efforts should be made to incorporte the identified preferred activities into a comprehensive program for faculty development.
- 3. Group development activities and the products of such collaborative efforts should be encouraged by deans and department heads through a college's or department's reward structure. Giving equal weight to products of group activities as to outcomes of individual faculty development activities might serve as a step in the right direction. When appropriate faculty development programs are used, they can help bridge the isolation of professors that has resulted from academic departmentalization/specialization and, thus, facilitate the sharing of ideas among faculty members within, between, and among various academic departments. Good group development activities could help to promote collegiality. The importance of group development practices has been well established by Nelsen (1981), who observed that when universities create faculty development programs which provide opportunities for renewal of faculty as individuals, they "unintentionally diminish group interaction and colleagueship and further encourage the individualization of the professoriate" (p. 9). To avoid this individualization, Nelsen suggested that universities emphasize corporate faculty development programs/activities. This should not be seen as a recommendation for the discontinuance of the

individual development practices. Rather, it should be viewed as an appeal for a shift to more group development programs.

- 4. Academic administrators and faculty members should give priority to instruction as an area of primary importance in faculty development.
- 5. The development of improved instruments to determine faculty development needs and preferred activities is suggested.
- 6. Similar studies should be conducted for other categories of universities (e.g. Private Research Universities I, Public and Private Comprehensive Universities).
- 7. A replication of this study using a larger sample size should help to substantiate the findings.
- 8. Future research efforts should determine which of the areas of faculty development are most needed and which of the development practices are most preferred by ranking responses.

A SELECTED BIBLIOGRAPHY

- Adelman, C., D. Jenkins, and S. Kemmis. "Rethinking Case Study": (Notes from the Second Cambridge Conference, Centre for Applied Research in Education, University of East Anglia, 1976, Mimeo).
- Alexander, A. T., and S. L. Yelon. <u>Instructional Development Agencies</u>
 in <u>Higher Education</u>. East Lansing: Continuing Education
 Services, 1972.
- Anderson, Scarvia, S. Ball, R. Murphy, and Associates. <u>Encyclopedia</u> of Educational Evaluation. San Francisco: Jossey-Bass, 1976.
- Angoff, H. William. "Test Reliability and Effective Test Length." Psychometrika, 18 (March, 1953), 1-14.
- Appleton, Nicholas, and V. Boyle. "A Middle-Range Proposal for Development of a Professional Teaching." <u>Educational Horizons</u>, 54 (Winter, 1976-77).
- Armand, Anna C. "The Professional Development Needs of Faculty as Viewed by Selected Academic Deans." (Unpub. Ph.D. dissertation, University of Pittsburgh, 1979).
- Astin, Alexander W. "Selectivity Index" (Unpublished work). Los Angeles: Higher Education Research Institute: in <u>A Classification of Institutions of Higher Education: Revised Edition;</u>
 Carnegie Council on Policy Studies in Higher Education, Berkeley, 1976, p. xvii.
- Axelrod, Joseph. "Teaching Styles in the Humanities." In <u>Effective</u>

 <u>College Teaching</u>. Ed. W. H. Morril. Washington, D.C.: American

 Council on Education, 1970.
- Bartz, Albert E. <u>Basic Statistical Concept</u> (2nd Ed.). Minneapolis: Burgess Publishing Co., 1981.
- Bayley, D. H. "Making College Teaching a Profession." <u>Improving</u>
 <u>College and University Teaching</u>, 15 (1967), 115-119.
- Becker, William H. "A Collegial Approach to Faculty Development" <u>Liberal Education</u>, 67 (Spring, 1981), 19-35.
- Bell, M. E., E. C. Dobson, and J. M. Gram. "Peer Observation as a Method of Faculty Development." <u>Journal of the College and</u> University Personnel Association, 28 (Fall, 1977), 15-17.

- Bergquist, William H., and S. R. Phillips. A Hand Book for Faculty

 Development, Vol. I. Washington, D.C.: The Council for the

 Advancement of Small Colleges, 1975.
- . A Hand Book for Faculty Development, Vol. II.

 Washington, D.C.: The Council of Independent Colleges, 1977.
- Washington, D.C.: The Council of Independent Colleges, 1981.
- gram." Journal of Higher Education, 46 (March/April, 1975), 177-211.
- Birnbaum, R. "Using the Calendar for Faculty Development." <u>Educational Record</u>, 56 (1975), 226.230.
- Blackburn, R. T., and M. J. Clark. "An Assessment of Faculty Performance: Some Correlates Between Administrator; Colleague; Student and Self-Ratings." Sociology of Education, 48 (1975), 242-256.
- Borg, Walter R., and Meredith D. Gall. Educational Research: An Introduction (4th Edition). New York: Longman, Inc., 1983.
- Bowen, Zeddie. "Retraining and Renewing Faculty in a Time of 'Retrenchment." In <u>Effective Approaches to Faculty Development</u>. Eds. W. C. Nelsen and M. E. Siegel. Washington, D.C.: Association of American Colleges, 1980.
- Breslin, Richard D. "Fostering Faculty Vitality." <u>Educational Record</u>, (Winter, 1983), 56-57.
- Brown, David G., and W. S. Hanger. "Pragmatics of Faculty Self-Development." Educational Record, 56 (Summer, 1975), 201-206.
- Bruss, Edward A., and K. L. Kutina. "Faculty Vitality Given Retrenchment: A Policy Analysis." Research in Higher Education, 14 (1981), 19-30.
- Carlberg, Judson R. "Renewing Faculty Through Growth Planning." In Effective Approaches to Faculty Development. Eds. W. C. Nelsen and M. E. Siegel. Washington, D.C.: Association of American Colleges, 1980.
- Carnegie Commission on Higher Education. A Classification of Institutes of Higher Education: A Technical Report. Berkeley: California, 1973.
- Carnegie Council on Policy Studies in Higher Education. <u>Three</u>
 Thousand Futures. San Francisco: Jossey-Bass, 1980.

- Carnegie Council on Policy Studies in Higher Education. A Classification of Institutions of Higher Education: A Report of the Carnegie Council on Policy Studies in Higher Education Revised Edition. Berkeley: The Council, 1976.
- Centra, J. A. "Colleagues as Raters of Classroom Instruction." Journal of Higher Education, 46 (1975), 327-337.
- <u>Universities</u>. PR-76-30 Princeton: Educational Testing Service, 1976.
- . "Self-Ratings of College Teachers: A Comparison with Student Ratings." Research Bulletin 72-33. Princeton: Educational Testing Service.
- . "Pluses and Minuses of Faculty Development." <u>Change</u>, (December, 1977), 47-48, 64.
- ______. "The How and Why of Evaluating Teaching." New Directions for Higher Education. Ed. J. A. Centra. 17 (Spring, 1977).
- ______. "Faculty Development Practices." Renewing and Evaluating Teaching. New Directions for Higher Education, Vol. 17. San Francisco: Jossey-Bass, Inc. (Spring, 1977a).
- . "Faculty Development in Higher Education." <u>Teachers</u>
 <u>College Record</u>, 80 (September, 1978).
- . "Types of Faculty Development Programs." <u>Journal of Higher Education</u>, 49 (March/April, 1978b), 151-162.
- Chait, Richard P., and J. Gueths. "Proposing a Framework for Faculty Development." Change, (May/June, 1981), 30-33.
- Ciampa, Batholomew J. "Fostering Instructional Improvement Through Faculty Development." Planning for Higher Education, 9 (December, 1980), 22-27.
- Clare, Rose. "Faculty Development in a Statewide System." (Paper presented at the International Conference on Improving Teaching, University of Massachusetts, 4th October, 1974).
- Cohen, Peter A., and M. McKeachie. "The Role of Colleagues in the Evaluation of College Teaching." <u>Improving College and University Teaching</u>, 28 (Fall, 1980), 147-154.
- Connell, Karen J., M. J. Alberti, and J. Piotrowski. "What Does It Take for Faculty to Make a Difference?" Educational Horizons, 55 (Winter, 1976-77), 108-115.

- Cooley, W. W., and P. R. Lohnes. <u>Evaluation Research in Education</u>: <u>Theory, Principles, and Practice</u>. New York: Irvington Publishers, Inc., 1976.
- Cooper, C. L. "T-Group Training and Self-Actualization." <u>Psychological Reports</u>, 28 (1971), 391-394.
- Costin, F. "Intercorrelation Between Students' and Course Chairmen's Rating of Instructors." University of Illinois, Division of General Studies, 1966 (Mimeographed).
- _____. "A Graduate Course in the Teaching of Physchology:

 Description and Evaluation." Journal of Teacher Education, 19
 (1968), 425-432.
- Costin, F. A., W. T. Greenough, and R. J. Menges. "Student Ratings of College Teaching: Reliability, Validity and Usefulness." Review of Educational Research, 41 (1971), 511-535.
- Coufal, James E., and R. E. Hines. "Faculty Evaluations: Standards or Double Standards?" Planning and Changing, 7 (Spring, 1976).
- Craven, Eugene C. "Managing Faculty Resources." In <u>Challenges of Retrenchment</u>. Eds. R. James Mingle and Associates. Washington, D.C.: Jossey-Bass, 1981.
- Cronbach, Lee J. "Coefficient Alpha and the Internal Structure of Tests." Psychometrika, 16 (September, 1953), 297-334.
- Crow, M. L. "Emphasis on Faculty Development." In <u>Faculty Development</u>

 <u>Centers in Southern Universities</u>. Eds. M. L. Crow, O. Milton,

 E. W. Moomaw, and O'Connell, Jr. Atlanta: Southern Regional

 Education Board, 1976-1979.
- Crow, M. L., and Others. <u>Faculty Development Centers in Southern</u>
 <u>Universities</u>. Atlanta: Southern Regional Education Board, 1976.
- Davis, J. R. <u>Teaching Strategies for the College Classroom</u>. Boulder: Westview Press, 1976.
- Faculty Development." Higher Education, 8 (1979), 123-140.
- Dressel, P. "Evaluation of the Environment, the Process, and the Results of Higher Education." In <u>Handbook of College and University Administration</u>. Açademic Ed. A. S. Knowles. New York: McGraw-Hill, 1970.
- . <u>Handbook of Academic Evaluation</u>. San Francisco: Jossey-Bass, 1976.
- Ducharme, Edward R. "Faculty Development in Schools, Colleges and Departments of Education." <u>Journal of Teacher Education</u>, 32 (September/October, 1981), 30-34.

- Dwyer, F. M. "Selected Criteria for Evaluating Teacher Effectiveness." Improving College and University Teaching, 21 (1974), 51-52.
- Eble, Kenneth E. "Project to Improve College Teaching." Academe, 4 (1970), 3-6.
- . The Recognition and Evaluation of Teaching. Utah: Project to Improve College Teaching, 1970.
- . <u>Career Development of the Effective College Teacher</u>.

 A project jointly sponsored by the American Association of University Professors and the Association of American Colleges, 1971.
- . <u>Professors as Teachers</u>. San Francisco: Jossey-Bass,
- Eckard, Pamela J. "Faculty Evaluation: The Basis for Rewards in Higher Education." Peabody Journal of Education, 57 (January, 1980), 94-100.
- Erickson, G. R., and D. S. Sheehan. "An Evaluation of a Teaching Improvement Process for University Faculty." (Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, April, 1976).
- Ferren, Ann S., and L. G. Louise. "Models for Faculty Development." Teaching Political Science, 5 (October, 1977), 23-38.
- Festinger, L. <u>A Theory of Cognitive Dissonance</u>. Evanston: Row-Peterson, 1957.
- Francis, John B. "How Do I Get There From Here Program Design for Faculty Development." <u>Journal of Higher Education</u>, 46 (November/December, 1975), 719-732.
- Freedman, Mervin, and N. Sanford. "The Faculty Member Yesterday and Today." Facilitating Faculty Development. New Directions for Higher Education. San Francisco: Jossey-Bass, 1973.
- Freedman, Mervin. "Facilitating Faculty Development." In <u>Facilitating</u>

 Faculty Development. New Directions for Higher Education, Vol. I.

 San Francisco: Jossey-Bass, 1973.
- Gaff, J. G. Toward Faculty Renewal: Advances in Faculty, Instructional, and Organizational Development. San Francisco: Jossey-Bass, 1975.
- . "Current Issues in Faculty Development." <u>Liberal</u> Education, 63 (1977), 511-519.
- ______. "Involving Students in Faculty Development." New Directions for Higher Education, 24 (1978), 59-71.

- Gaff, J. G. "Overcoming Faculty Resistance. Institutional Renewal Through the Improvement of Teaching." New Directions for Higher Education, Vol. 6. San Francisco: Jossey-Bass, 1978b.
- Gaff, J. G., and D. O. Justice. "Faculty Development Yesterday, Today, and Tomorrow." New Directions for Higher Education, Vol. 24, 1978.
- Gaff, J. G., and B. R. Morstain. "Evaluating the Outcomes of Faculty Development." New Directions for Higher Education, Vol. 24, 1978.
- Gaff, S. S., C. Festa, and J. G. Gaff. <u>Professional Development: A Guide to Resources</u>. Change Magazine Press, 1978.
- Gage, N. L. "The Appraisal of College Training." <u>Journal of Higher</u> Education, 32 (1971), 17-22.
- . "Students' Rating of College Teaching: Their Justification and Proper Use." (Second OCSB Conference on Effective Teaching. Eds. Glasman and B. R. Killait, 1974), 79.86.
- Gardner, John W. <u>Self Renewal: The Individual and the Innovative</u> Society. New York: Harper and Row, 1965.
- Gay, L. R. Educational Research: Competencies for Analysis and Application. 2nd Edition. Columbus: Charles E. Merril Publishing, Co., 1981.
- Geisert, Paul. A Discrepancy Evaluation System for University Professors. Laramie: University of Wyoming Center for Research, Service and Publication, 1973.
- George, D. A. "A Framework for Individual and Organizational Renewal." (Unpub. Ph.D. dissertation, University of California-Los Angeles, 1977).
- Georgiades, William. "Renewal: A Must for the Principal/Instructor Leader." Thrust for Educational Leadership, 9 (January, 1980), 5-7.
- Gilligan, J. F. "Sensitivity Training and Self Actualization." <u>Psychological Reports</u>, 34 (1974), 319-325.
- Goldman, Anthony F. "The Role of Organizational Development." <u>Journal</u> of Teacher Education, 29 (May/June, 1978), 27-30.
- Goldman, Jeffrey A. "Effect of Faculty Development Workshop Upon Self-Actualization." Education, 98 (March/April, 1978), 254-258.
- Grasha, A. F. Assessing and Developing Faculty Performance.

 Cincinnati: Communication and Education Associates, 1977.
- Gross, Richard. "Faculty Growth Contracts." Educational Horizons, 55 (Winter, 1976-77), 74-79.

- Grupe, Fritz H. <u>Interinstitutional Cooperation at the Developmental</u>
 <u>Level</u>. New York: Associated Colleges of the St. Lawrence Valley, c1972.
- Gustad, John W. "Evaluation of Teaching Performance: Issues and Possibilities." In <u>Improving College Teaching</u>. Ed. B. T. C. Lee. Washington, D.C.: American Council for Education, 1967.
- Hammons, James O., and T. H. S. Wallace. "Sixteen Ways to Kill a College Faculty Development Program." Educational Technology, (December, 1976), 16-20.
- Hansen, Desna Wallin. "Faculty Development Activities in the Illinois Community College System." Community/Junior College Quarterly, (July, 1983), 207-302
- Harvey, J. N., and D. G. Barker. "Student Evaluation of Teaching Effectiveness." <u>Improving College and University Teaching</u>, 18 (1970), 275-278.
- Heis, Ann. Challenges to Graduate Schools. New York: Jossey-Bass, c1970.
- Hilderbrand, M., R. C. Wilson, and E. R. Dienst. <u>Evaluating University of California</u>, Center for Research and Development in Higher Education, 1971.
- Hirschowitz, Ralph G. "The Development of Staff for Institutional Change." Adult Education, 23 (January, 1975).
- Hodgkinson, Harold L. "How to Evaluate Faculty When You Don't Know Much About Them." Research Reporter, 1 (1972), 5-7.
- Hoover, Kenneth H. <u>College Teaching Today: A Handbook for Post</u> Secondary Institution. Boston: Allyn and Bacon, Inc., 1980.
- Howsam, S. "Current Issues in Evaluation." The National Elementary Principle, 52 (February, 1973), 13.
- Hoyt, Donald P., and G. S. Howard. "The Evaluation of Faculty Development Programs." Research in Higher Education, 8 (1978), 25-38.
- Kelley, Edgar A. <u>Personnel Management for Schools</u>. Lincoln: University of Nebraska, Department of Educational Administration and Secondary Education Teachers College, 1975.
- Kelley, Edgar A., and E. A. Dillon. "Staff Development: It Can Work for You." NASSP Bulletin, 62 (April, 1978), 1-8.
- Kerlinger, Fred N. Foundations of Behavioral Research. 2nd Edition. New York: Holt, Rinehart and Klinston, Inc., 1973.

- Kerr, Clark. "Preface." In <u>A Classification of Institutions of Higher</u>
 <u>Education: Revised Edition: A Report of the Carnegie Council on</u>
 <u>Policy Studies in Higher Education.</u> Berkeley: The Council, 1976, v.
- Kimball, R., and C. J. Gelso. "Self-Actualization in a Marathon Growth Group: Do the Strong Get Stronger?" <u>Journal of Counseling Psychology</u>, 21 (1974), 32-34.
- Kozma, R. B. "Faculty Development and the Adoption and Diffusion of Classroom Innovation." <u>Journal of Higher Education</u>, 49 (1978), 438-439.
- Kozma, R. B., L. W. Belle, and G. W. Williams. <u>Instructional Techniques</u> in Higher Education. Englewood Cliffs: Educational Technology Publications, 1978.
- Kramer, H. C. "Faculty Advising as Faculty Development." <u>College and University</u>, (Spring, 1979), 204-215.
- Kulik, J. A. Memo to the Faculty, No. 53. University of Michigan, 1978.
- Linden, G. "Multi-Instructional, Multi-Level Faculty Development Program." Educational Horizons, 55 (Winter, 1976-1977), 64-69.
- Lindquist, J. (Editor). <u>Designing Teaching Improvement Programs</u>. Washington, D.C.: Council for the Advancement of Small Colleges, 1979.
- . Designing Teaching Improvement Programs. Berkeley: Pacific Sounding Press, 1978.
- Loheyde, K. Jones. "Faculty Development! What About Administrators?"

 Improving College and University Teaching, 20 (Summer, 1982), 101104.
- Lovell, G. D., and C. F. Haner. "Forced-Choice Applied to College Faculty Rating." <u>Educational and Psychological Measurement</u>, 15 (1955), 291-304.
- Lucas, J. "Staff Development: Theory and Practice." (Unpub. manuscript). DeAnza College, October, 1979.
- Many, W., J. Ellis, and P. Abrams. <u>In Service Education in American Senior Colleges and Universities</u>. (A Status Report) DeKalb: College of Education, Northern Illinois University, 1969
- Marsh, H., and S. Kesler. The Validity of Student Evaluation: A Comparison of Faculty Self-Evaluation and Student Evaluations. Los Angeles: University of Southern California, Office of Institutional Studies, 1976.
- Marshall, M. S. "Analyzing Evaluation." The Education Forum, 35 (May, 1971), 487-490.

- Martin, Warren B. "Faculty Development as Human Development." <u>Liberal</u> <u>Education</u>, 56 (May, 1975), 187-196.
- Maslow, A. H., and W. Zimmerman. "College Teaching Ability, Scholar-ship, Activity and Personality." <u>Journal of Educational Psychology</u>, 47 (1956), 185-189.
- Massachusetts Advisory Council on Education. Mace Reports, 1975, as quoted in "Faculty Evaluation." The International Encyclopedia of Higher Education, Vol. 4. Ed. Asa S. Knowles. San Francisco: Jossey-Bass, 1977.
- Marty, Myron A. "Disciplinary Associations and Faculty Development: Individualizing the System." In <u>Current Issues in Higher Education</u>. Ed. Dyckman W. Vermdye. San Francisco: Jossey-Bass, 1973.
- McCartney, Jesse F., and S. H. Wurster. "Faculty Development: Planing for Individual and Instructional Renewal." <u>Planning for</u> Higher Education, 9 (December, 1980), 14-21.
- McKeachie, Wilbert J. "Student Ratings of Faculty." AAUP Bulletin, 55 (December, 1969), 44-46.
- . Assessing Teaching Effectiveness: Comments and Summary. (Proceedings of the First International Conference on Improving University Teaching. Ed. Massey Heidelberg). University of Maryland, 1975.
- McKeachie, W. J., and J. A. Kulik. "Effective College Teaching."

 Review of Research in Education, Vol. 3. Ed. F. Kerlunger.

 Itasca: Peacock, 1975.
- McMartin, J. A., and H. E. Rich. Faculty Opinion at California State
 University, Northridge Toward Student Evaluation of Teaching

 Effectiveness. (Unpub. research paper). California State University, Northridge, 1976.
- Miller, Starr W., and K. N. Wilson. <u>Faculty Development Procedures in Small Colleges/A Southern Survey</u>. Southern Regional Education Board, 1963.
- Miller, R. I. <u>Evaluating Faculty Performance</u>. San Francisco: Jossey-Bass, 1972.
- . Developing Programs for Faculty Evaluation. San Francisco: Jossey-Bass, 1974.
- . "Assessing Teacher Effectiveness." (Proceedings of the First Conference on Improving University Teaching. Ed. Massey B. Heidelberg). University of Maryland, 1975.
- Milley, Jane E. "Redirecting Staff Development: Individual Plans."

 (A paper presented to the League for Innovation, National Conference, Sacramento, October, 1978).

- Moomaw, Edward W. "Practices and Problems in Evaluating Instruction."

 New Directions for Higher Education, 17 (Spring, 1977), 77-91.
- Mullally, Lee J., and N. V. Duffy. "The Goal of Faculty Development: Improving Instruction (and Surviving)." Improving College and University Teaching, 26 (Spring, 1978), 121-122.
- Munday, L. A. "College Access for Non-Traditional Students." <u>Journal</u> of Higher Education, 47 (November/December, 1976), 681-699.
- Murray, H. G. "The Reliability and Validity of Student Ratings of Faculty Teaching Ability." (Unpub. manuscript, 1973).
- National Academy of Sciences. <u>Doctorate Recipients from United States</u>
 <u>Universities</u>, 1958-1966. Washington, D.C., 1976.
- National Faculty Directory '83, Vols. 1-3. 13th Edition. Detroit: American University Press, 1982.
- Neff, Charles B. "Faculty Development Tug O'War, Or Up a Tree With a Tuning Fork?" <u>Liberal</u> <u>Education</u>, 2 (October, 1976), 427-431.
- Nelsen, William C. "Faculty Development: Prospects and Potentials for the 1980s." <u>Liberal Education</u>, 65 (Summer, 1979), 141-149.
- ______. "Faculty Development: Perceived Needs for the 1980s."

 In Effective Approaches to Faculty Development. Eds. W. C. Nelsen and M. E. Siegel. Washington, D.C.: Association of American Colleges, 1980.
- <u>ment in the Liberal Arts College</u>. Washington, D.C.: Association of American Colleges, 1981.
- Nelsen, W. C., and M. E. Siegel. "Faculty Development: Promises,
 Realities and Needs." In <u>Effective Approaches to Faculty Develop-</u>
 ment. Eds. W. C. Nelsen and M. E. Siegel. Washington, D.C.:
 Association of American Colleges, 1980.
- Noon, John F. "Evaluation." (A formal presentation on evaluation made for directors of faculty development programs funded by the Lilly Endowment). June, 1976.
- Nyquist, Thomas E. "State University of New York Faculty Retraining Project." Viewpoints in Teaching and Learning, 54 (October, 1978), 104-112.
- O'Banion, T. <u>Teachers for Tomorrow: Staff Development in the Community Junior College.</u> Tucson: University of Arizona Press, 1977.
- O'Connell, William R., and L. R. Moeth. <u>Evaluating Teaching Improvement Programs</u>. New York: Change Magazine Press, 1978.

- Oi, Walter Y. "Academic Tenure and Mandatory Retirement Under the New Law." Science, 206 (1979), 1373-1375.
- Ozmon, H. "Publications and Teaching." <u>Improving College and University Teaching</u>, 5 (1967), 106-107.
- Parlet, Malcolm, and D. Hamilton. "Evaluation as Illumination: A New Approach to the Study of Innovatory Programs." (occasional paper number nine, Edinberg, Scotland: Center for Research in the Educational Sciences, 1972).
- Patterson, Melissa Jane. "The Need For and the Practice of Faculty Development for Undergraduate Teaching Personnel at a Major Public University as Perceived by Facult- and Administrators." (Unpub. Ph.D. dissertation, University of Alabama, 1978).
- Phillips, S. R. "What, Then Is Faculty Development?" <u>ADE Bulletin</u>. Association of Departments of English. (May, 1976), 11-17
- Management, 9 (November/December, 1974), 14, 17.
- Popham, James W., and K. A. Sirotnik. Educational Statistics: Use and Interpretation. 2nd Edition. New York: Harper and Row, 1973.
- Priest, Bill J. "Classroom: Castles or Learning Laboratories."

 In Improving College Teaching. Ed. B. T. Lee. Washington, D.C.:
 American Council on Education, 1967.
- Provus, Malcolm. <u>Discrepancy Evaluation for Educational Program</u>

 Improvement and Assessment. Berkeley: Mr. Gunthran Publishing
 Corp., 1971.
- Raizen, Santa A., and P. H. Rossi. <u>Program Evaluation in Education:</u>
 When? How? To What Ends? Washington, D.C.: National Academy
 Press, 1981.
- Ralph, Norbert. "Stages of Faculty Development." New Directions for Higher Education. San Francisco: Jossey-Bass, Spring, 1973.
- Redditt, Paul L., and W. Hamilton. "Teaching Improvement in a Small College." Institutional Renewal Through the Improvement of Teaching. New Directions for Higher Education, Vol. 6. San Francisco: Jossey-Bass, 1978.
- Remmers, H. H. Manual of Instruction for the Purdue Rating Scale of Instructors. (revised edition). West Lafayette: University Book Store, 1960.
- Rhodes, Dent M. "Evaluation of Faculty Development Programs: A Prologue." (A paper presented at the International Conference on Improving University Teaching, Ontario, McMaster University, 1977).

- Rhodes, D., and D. Hounsell. <u>Staff Development for the 1980s:</u>
 <u>International Perspectives</u>. Illinois: Illinois State University, 1980.
- Rhodes, D. "Evaluating Staff Development Programs." In Staff Development for the 1980s: International Perspectives. Eds. Dent Rhodes and Dai Hounsell. Illinois: Illinois State University, c1980.
- Richardson, R. C. "Staff Development: A Conceptual Framework." Journal of Higher Education, 46 (May/June, 1975), 303-311.
- Sagan, H. B. "Organizational Reform Is Not Enough." In <u>Elements</u>

 <u>Involved in Academic Change</u>. Ed. C. U. Walker. Washington,

 D.C.: Association of American Colleges, 1972.
- Scheffé, H. "A Method for Judging all Contrasts in Analysis of Variance." Siometrika, XL (1953), 87-104.
- Schwartz, Lita L. "Criteria for Effective University Teaching."

 Improving College and University Teaching, 28 (Summer, 1980), 120123.
- Scriven, M. "Evaluation Perspectives and Procedures." In <u>Evaluation</u> in <u>Education</u>. Ed. W. J. Popham. Berkeley: McCutchan, 1974.
- Seldin, Peter. How Colleges Evaluate Professors. New York: Blythe-Pennington, Ltd., 1975.
- Semas, Phillip W. "The Explosive Growth of Faculty Development." The Chronicle of Higher Education, 11 (November 3, 1975), 3.
- Shapiro, Arthur, and K. C. Kirby. "How to Retrain Your Staff to Improve Performance." In <u>Managing Schools in Hard Times</u>. Ed. Stanton Leggett. Chicago: Tech'em Inc., 1981.
- Smith, Ralph B., and G. F. Ovard. "Professional Development: A New Approach." <u>Improving College and University Teaching</u>, 27 (Winter, 1979), 40-46
- Snyder, J. K., and R. H. Anderson. "Leadership in Teacher Education: A Systems Approach." <u>Journal of Teacher Education</u>, 31 (January/February, 1980), 11-15.
- Spencer, R. E. The Illinois Course Evaluation Questionnaire: Manual of Interpretation. (Research Report No. 270). Champaign: University of Illinois, 1968.
- Spencer, R. E., and L. M. Aleamoni. "A Student Course Evaluation Questionnaire." <u>Journal of Educational Measurement</u>, 7 (1970), 209-210.
- Strice, James E. "A Bargain at Any Price: A Steal @ \$1.24." Educational Horizons, 55 (Winter, 1976-1977), 80-85.

- Stordahl, Barbara. "Faculty Development: A Survey of Literature of the 70s." AAHE Bulletin, (March, 1981), 7-10.
- Stufflebeam, D. L., and Others. Educational Evaluation and Decision-Making. Itasca: Peacock, 1971.
- Sweeney, John M., and A. F. Grasha. "Improving Teaching Through Faculty Development Triads." Educational Technology, (February, 1979), 54-57.
- The Change Panel on Academic Economics. <u>Colleges and Money: A Faculty Guide to Academic Economics</u>. New Rochelle: Change Magazine and Education Change, 1976.
- The Group of Human Development in Higher Education. Faculty Development In a Time of Retrenchment. New Rochelle: Change Magazine Press, 1976.
- Thompson, Paul H., and G. W. Dalton. "Performance Appraisal: MAnagers Beware." Harvard Business Review, 48 (January/February, 1970), 149-157.
- Toombs, W. "Developing Todays Faculty for Tomorrows Students." The Educational Forum, 41 (March, 1977), 365-372.
- Toug, M. S., and T. F. Feldhusen. "The Relationship Between Student Ratings of Instructors and Their Participation in Classroom Discussion." (A paper presented at the meeting of the National Council on Measurement in Education, New Orleans, February, 1973).
- U. S. Department of Health, Education, and Welfare. Selection and Evaluation of Teachers: An Interpretative Study of Research and Development. by Dale L. Bolton. Washington, D.C.: Government Printing Office, September, 1970, 32.
- U. S. Government Manual 1982/83. Washington, D.C.: Office of the Federal Register, National Archives and Records Service, 1982, 116.
- Vicere, Albert A. "Faculty Development: The Other Side of Continuing Education." Continuum, 45 (April, 1981), 23-28.
- Washington, Roosevelt, Jr., and G. B. Chisolm. "Considerations in the Design and Implementation of Staff Development Programs and Activities." Planning and Changing, 10 (1979), 181-188.
- Webb, Jeaninne, and A. B. Smith. "Improving Instruction in Higher Education." Educational Horizons, 55 (Winter, 1976-1977), 86-91.
- Weber, Yvonne R. "In-Service Training of College Teachers: Aims and Practices for Faculty Development." (Unpub. Ph.D. dissertation, University of Pittsburgh, 1973).

- Weiss, Carol H. <u>Evaluating Action Programs</u>. Boston: Allyn and Bacon, 1972.
- Wergin, Jon F., E. J. Mason, and P. J. Munson. "The Practice of Faculty Development: An Experience-Derived Model." <u>Journal of Higher Education</u>, 47 (May/June, 1976), 289-307.
- Wergin, Jon F. "Evaluating Faculty Development Programs: Renewing and Evaluating Teaching." New Directions for Higher Education, Vol. 17. San Francisco: Jossey-Bass, (Spring), 1977.
- Wilson, L. The Academic Man. New York: Oxford University Press, 1942.
- Wilson, W. R. "Students Rating Teachers." <u>Journal of Higher Education</u>, 3 (1932), 75-82.
- Winthrop, H. "Worth of a Colleague." <u>Improving College and University</u> Teaching, 14 (1966), 262-267.
- Wolf, R. L., J. Porter, and B. Baxter. "The Judicial Approach to Educational Evaluation." (A paper presented at the Annual Meeting of the American Research Association, San Francisco, April, 1976).
- Wolke, Robert L. "Faculty Development Explained." <u>Journal of Chemical</u> <u>Education</u>, 57 (December, 1980), 838-840.
- Worthen, Blaine R., and J. Sanders. Educational Evaluation: Theory and Practice. Worthington: Jones Publishing, 1972.
- Yearbook of Higher Education, 1982-83. Chicago: Marquis Who's Who, Inc., 1982.
- Zigarmi, Patricia. "Teacher Centers: A Model for Teacher-Initiated Staff Development." <u>Teachers College Record</u>, 80 (September, 1978), 172-187.

APPENDIX A

UNIVERSITY PARTICIPATION BY COLLEGE AND

ACADEMIC DEPARTMENT

TABLE XVI

UNIVERSITY PARTICIPATION BY COLLEGE AND DEPARTMENT

Univ.	* Col.	* Dept.*
		University of Missouri-Columbia
01	0.1	
01	01	00 College of Agriculture 01 Department of Agricultural Economics
01	01	•
01	01	02 Department of Agricultural Mechanization 03 Department of Animal Science
01	02	00 College of Arts and Sciences
01	02	04 Department of Biological Sciences
01	02	07 Department of English
01	02	06 Department of History
01	02	05 Department of Physics
01	02	08 Department of Political Science
01	02	09 Department of Sociology
01	03	00 College of Business and Public Administration
01	03	10 School of Accountancy
01	03	11 Department of Business**
01	03	12 Department of Finance
01	04	00 College of Education
01	04	13 Department of Educational Administration
01	04	14 Department of Health and Physical Education
01	04	15 Department of Special Education
01	05	00 College of Engineering
01	05	16 Department of Chemical Engineering
01	05	17 Department of Civil Engineering
01	05	18 Department of Electrical Engineering
		Ohio State University-Columbus
02	01	00 College of Agriculture and Home Economics
02	01	Ol Department of Agricultural Economics and Rural Sociology
02	01	O2 Department of Agricultural Engineering
02	01	03 Department of Animal Science
02	02	00 Colleges of the Arts and Sciences
02	02	00a College of Biological Sciences
02	02	04 Department of Botany
02	02	04 Department of Zoology
02	02	00b College of Humanities
02	02	07 Department of English
02	02	06 Department of History
02	02	OOc College of Mathematical Sciences and Physical
0.0	0.0	Sciences Sciences
02	02	O5 Department of Physics

TABLE XVI (CONTINUED)

Ohio State University-Columbus, continued O2	Univ.	* Col.	* Dept.*
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03 04 15 Department of Psychoeducational studies	٠,.		Health Education
	03	04	15 Department of Psychoeducational studies

TABLE XVI (CONTINUED)

Univ.	* Col.	Dept.*	
		University of Minnesota-Twi	n City, continued
03	05	00 Institute of Technology	
03	05		l Engineering and Material
03	05		nd Mineral Engineering
03	05	18 Department of Electric	
		University of Wiscons	in-Madison
04	01	00 College of Agriculture	and Life Sciences
04	01	01 Department of Agricul	
04	01	02 Department of Agricula	
04	01	03 Department of Mean and	
04	02	00 College of Letters and	Sciences
04	02	04 Department of Botany	
04	02	O7 Department of English	
04	02	Of Department of History	
04	02	O5 Department of Physics	
04	02	08 Department of Politica	al Science
04	02	09 Department of Sociolog	gy
04	02	O4 Department of Zoology	
04	03	00 School of Business	
04	03	10 Department of Account:	
04	03	11 Department of Economic	
04	03	12 Department of Finance	
04	04	00 School of Education	
04	04	13 Department of Education	onal Administration
04	04	14 Department of Physica	l Education and Dance
04	04	15 Department of Studies	in Behavioral Disabilities
04	05	00 College of Engineering	
04	05	16 Department of Chemica	-
04	05	-	nd Environmental Engineering
04	05	18 Department of Electri	cal and Computer Engineering
		University of Iowa-	Iowa City
05	03	00 College of Business Adm	inistration
05	03	10 Department of Account	ing
05	03	11 Department of Economi	cs
05	03	12 Department of Finance	
05	04	00 College of Education	
05	04	13 Department of Educati	
05	04		l Education and Dance
05	04	15 Department of Special	Education

Univ.	* Col.	Dept.*
		University of Iowa-Iowa City, continued
05	05	00 College of Engineering
05	05	16 Department of Chemical and Materials Engineering
05	05	17 Department of Civil and Environmental Engineering
05	05	18 Department of Electrical and Computer Engineering
05	02	00 College of Liberal Arts
05	02	04 Department of Botany
05	02	07 Department of English
05	02	06 Department of History
05	02	05 Department of Physics and Astronomy
05	02	08 Department of Political Science
05	02	09 Department of Sociology
05	02	04 Department of Zoology
		Michigan State University-East Lansing
06	01	00 College of Agriculture and Natural Resources
06	01	Ol Department of Agricultural Economics
06	01	02 Department of Agricultural Engineering
06	01	03 Department of Animal Science
06	02	00 Colleges of Arts, Social and Natural Sciences
06	02	00a College of Arts and Letters
06	02	O7 Department of English
06	02	O6 Department of History
06	02	00b College of Natural Sciences
06	02	O4 Department of Botany and Plant Pathology
06	02	O5 Department of Phyics and Astronomy
06	02	04 Department of Zoology
06	02	00c College of Social Science
06	02	OB Department of Political Science
06	02	09 Department of Sociology
06	03	00 College of Business
06	03	10 Department of Accounting
06	03	11 Department of Economics
06	03	12 Department of Finance and Insurance
06	04	00 College of Engineering
06	04	16 Department of Chemical Engineering
06	04	17 Department of Civil and Sanitary Engineering
06	04	18 Department of Electrical Engineering and Systems Sciences

^{*}Univ., Col., Dept. denote University, College, Department, respectively **Substituted for the Department of Economics.

APPENDIX B

LIST OF PUBLIC RESEARCH UNIVERSITIES I

LIST OF PUBLIC RESEARCH UNIVERSITIES I

ARIZONA

University of Arizona

CALIFORNIA

University of California, Berkeley University of California, Davis University of California, Los Angeles University of California, San Diego

COLORADO

University of Colorado, Main Campus

FLORIDA

University of Florida

GEORGIA

University of Georgia

HAWAII

University of Hawaii, Main Campus

ILLINOIS

University of Illinois, Urbana

IOWA

University of Iowa

KENTUCKY

University of Kentucky

MARYLAND

University of Maryland, Main Campus

MICHIGAN

Michigan State University University of Michigan, Main Campus

MINNESOTA

University of Minnesota, Minneapolis-St. Paul

MISSOURI

University of Missouri, Columbia

NEW JERSEY

Rutgers University, New Brunswick

NORTH CAROLINA

North Carolina State University, Raleigh University of North Carolina, Chapel Hill

OHIO

Ohio State University, Main Campus

PENNSYLVANIA

Pennsylvania State University, Main Campus University of Pittsburgh, Main Campus

TENNESSEE

University of Tennessee, Knoxville

TEXAS

Texas Agricultural and Mechanical University University of Texas, Austin

UTAH

University of Utah

WASHINGTON

University of Washington

WISCONSIN

University of Wisconsin, Madison

APPENDIX C

THE FOUR REGIONS, THE STATES COMPRISING EACH,

AND THE PUBLIC RESEARCH UNIVERSITIES I

FOUND THEREIN

THE FOUR REGIONS, THE STATES COMPRISING EACH REGION, AND THE PUBLIC RESEARCH UNIVERSITIES I FOUND THEREIN

I. NORTHEASTERN REGION

	<u>State</u>	Public Research University I
1.	MAINE	NONE
2.	CONNECTICUT	NONE
3.	MASSACHUSETTS	NONE
4.	VERMONT	NONE
5.	NEW HAMPSHIRE	NONE
6.	RHODE ISLAND	NONE
7.	NEW YORK	NONE
8.	PENNSYLVANIA	 Pennsylvania State University, Main Campus University of Pittsburgh, Main Campus
9.	DELAWARE	NONE
10.	MARYLAND	—University of Maryland, College Park Campus
11.	NEW JERSEY	NONE
12.	WEST VIRGINIA	NONE

	State	Public Research University I
11.	NEW MEXICO	NONE
12.	HAWAII	—University of Hawaii, Manoa
13.	ALASKA	NONE

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APPENDIX D

CORRESPONDENCE



DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND HIGHER EDUCATION

STILLWATER, OKLAHOMA 74078 309 CUNDERSEN HALL 1405) 624-7244

June 22, 1983

Dear Dr.

As a recognized authority in the area of faculty development, you have been identified to serve as a member of a panel of experts to validate a questionnaire to be used in a research study on faculty development needs and preferred development programs in Public Research Universities I as perceived by faculty members and academic administrators. The doctoral study is being undertaken via the Department of Educational Administration and Higher Education of Oklahoma State University, Stillwater.

Your cooperation in the validation of this instrument is vital to the scholarly quality of this research study. Your participation in this validation process should take no more than 15-20 minutes.

Enclosed is a copy of the original instrument to be validated. Please return the rated questionnaire in the enclosed self-addressed, stamped envelope by July 20, 1983.

Your cooperation is greatly appreciated.

Thank you.

11/CELETY

Victor F. Peretomode

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Enclosures

John J. Gardiner Thesis Adviser

Robert B. Kamm

Chairman, Doctoral Committee



DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND HIGHER EDUCATION

STILLWATER, OKLAHOMA 74078 309 GUNDERSEN HALL 405) 624-7244

September 15, 1983

Dear Dr.

The 1980s are recognized as a time of enrollment decline, decreasing financial support, lower state legislative appropriations to higher education, less faculty mobility, less faculty hiring, more tenured-infaculty and a recognition that needed changes will come about through the efforts of present faculty rather than the employment of new faculty members. The result of these challenges is that faculty development/renewal has become one of the key topics that require systematic research in higher education. Yet, at present, the literature indicates that very few systematic research projects have been conducted to determine how faculty development programs can be best designed to meet the needs of faculty, students, and the institution so as to keep the academy healthy and vital. The general lack of empirical data regarding faculty development needs and preferred development programs is especially evident at Public Research Universities.

Consequently, my doctoral research is being conducted to examine faculty development needs and preferred development practices as perceived by faculty and academic administrators in Public Research Universities I. Your University is one of six Public Research Universities in the North Central Region of the United States that is included in this study.

The purpose of this letter is to ask you to join us in our effort to discover ways to improve faculty development programs at Public Research Universities by granting us permission to conduct a survey on your Campus. The relationship between reported development needs and preferred development practices suggested by this survey will provide a data base, and thus be helpful to both faculty developers and other academic administrators in Public Research Universities as they save time, effort, and money that will, otherwise, be directed at a feasibility study of such needs and preferred development practices. The study should also bring about a better understanding of the fit between identified faculty development needs and preferred practices.

Attached is the general format of the questionnaire that we would like selected faculty members and administrators on your Campus to complete. The enclosed questionnaire is designed to let you know the type of questions the researcher will be asking. The Survey will consist of two brief

questionnaires of the same type. The first category of questionnaires will be completed by faculty members. The second category of questionnaires will be completed by college deans and department heads/chairpersons. The only difference between the two categories of questionnaires will be in the wordings of the INSTRUCTIONS to the different sections of the questionnaires. Attached is a table identifying the colleges and departments that will be involved in the survey.

Of course, all data will be treated with the strictest professional confidentiality; specific Universities and respondents will not be identified in the discussion/analysis of information in the dissertation. Should you be willing to grant permission, we would be happy to send you a report on the findings of the research as soon as the data are analyzed. We would also be willing to identify your institution on the tables for your personal information/use.

For your convenience, we have enclosed a form on which you may hopefully indicate your campus' willingness to cooperate in the doctoral study. Please return the form in the enclosed stamped, self-addressed envelope at your earliest convenience. We would appreciate receiving the completed form by $\frac{\text{October}}{\text{October}} = \frac{6}{3}$. Institutional vitality no doubt very much depends on the vitality of faculty. We hope the findings will be useful to you and your institution.

Thank you for your cooperation and support of this potentially significant undertaking.

Victor F. Peretomode

Graduate Research Associate

Dept. of Educ. Admin. & Higher Educ.

sh

cc: Robert B. Kamm Past University President & Professor of Educ. Admin. & Higher Educ. Chairman, Dissertation Committee

> John J. Gardiner Associate Professor of Educ. Admin. & Higher Educ. & Director of Graduate Studies Dissertation Adviser

Plea	se C	Check One of the Following:
()	You <u>may proceed</u> to conduct your survey on faculty development needs and preferred development programs/activities on this campus.
()	You may $\underline{\text{not}}$ proceed to conduct your survey on faculty development needs and preferred development programs/activities on this campus.
		Name
		Institution

COLLEGES AND DEPARTMENTS TO BE INCLUDED

IN THE STUDY

	College/School	Department
I.	Agriculture	Agricultural Economics Agricultural Engineering Animal Science
II.	Arts and/or Social Sciences/or Sciences	Biological Sciences/Zoology History Political Science Physics English Sociology
III.	Business Administration	Accountanting Economics Finance
IV.	Education	Educational Admin. and/or Higher Education Health and Physical Education and/or Dance Special Education (Behavioral Dis- abilities, or Psycho-educational Studies or Exceptional Children Education)
٧.	Engineering	Chemical Engineering Civil Engineering Computer Sciences and/or Informational Sciences



DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND HIGHER EDUCATION

STILLWATER, OKLAHOMA 74078 309 GUNDERSEN HALL (405) 624-7244

October 10, 1983

Dear Dr.

Several weeks ago, I wrote to you requesting your cooperation concerning a doctoral study. The letter explained the nature of the research study and requested your permission to conduct the survey on your campus.

Your busy schdule may have prevented you from responding to the letter/ request or you may never have received the letter.

I am , therefore, enclosing the original letter and the <u>permission request</u> form on which you may hopefully indicate your campus' willingness to cooperate in the doctoral study. I would appreciate receiving the completed permission request form by October 28, 1983. The distribution of questionnaire is scheduled for October 30, 1983. Of course, I would like your university to be included in the study.

 $\ensuremath{\mathrm{I}}$ am enclosing a stamped, self-addressed envelope for your convinience and reply.

Thank you for your cooperation.

Sincerely,

Victor F. Peretomode

Graduate Research Associate

Dept. of Educ. Admin. & Higher Educ.

P.S. Please ignore this reminder if you have already completed and returned the permission request form. Thank you again.

,



DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND HIGHER EDUCATION

STILLWATER. OKLAHOMA 74078 309 CUNDERSEN HALL 1405; 624-7244 August 30, 1983

Dear Sir or Madam:

I am conducting a dissertation study on faculty development needs in public research. Universities. The doctoral study is being undertaken with the support of the Department of Educational Administration and Higher Education at Oklahoma State. University, Stillwater. Your University is one of six public research Universities that this study will include.

In order to compile a comprehensive list of faculty and academic administrators to whom questionnaires should be sent, \underline{I} would appreciate it if your office would furnish me with the most recent undergraduate and graduate catalogs for your institution.

Thank you for your prompt attention.

Sincerely

Victor F. Peretomode
Graduate Research Associate
Dept. of Educ. Admin. &
Higher Educ.

s'n

Robert B. Kamm
Past President & Professor of
Educ. Admin. & Higher Educ.
Chairman, Doctoral Committee

John J. Gardiner Associate Professor of Educ. Admin. & Higher Educ.≯ Director of Graduate Studies Dissertation Adviser Dear Dr.

The attached is a draft of a questionnaire to be used in conducting a dissertation study on faculty development needs and practices in Public Research Universities I as perceived by faculty members and academic administrators.

The purpose of this letter is to solicit your assistance in making the questionnaire more readable. I would appreciate a few minutes of your time in reading through the questionnaire and making suggestions for improvement with regard to clarity, focus, and/or readibility.

Thank you for your help.

Sincerely,

Victor F. Peretomode Doctoral Candidate Dept. of Educ. Admin. & Higher Educ.



DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND HIGHER EDUCATION

November 1, 1983

Dear Respondent,

We are asking for your cooperation in a doctoral study on faculty development needs and preferred development programs/practices/activities in public research universities. The research study is being undertaken with the support of the Department of Educational Administration and Higher Education at the Oklahoma State University, Stillwater. Your University is one of the public research universities this study will include.

We hope that you will take a few minutes from your busy schedule and respond to the attached questionnaire. A return, stamped, self-addressed envelope has been included for your convenience. All responses and respondents will be treated with the strictest professional confidentiality. We would appreciate receiving your completed questionnaire by November 24, 1983.

We greatly appreciate your support. An abstract of the study will be sent to the Dean's office of your college/school/division by April 30, 1984.

Thank you for your participation in this project.

Sincerely,

Victor F. Peretomode Doctoral Candidate and Graduate Research Associate

Educ. Admin. & Higher Educ.

cc: Robert B. Kamm

Past University President & Professor of Educ. Admin. & Higher Educ. Chairman, Dissertation Committee

John J. Gardiner

Associate Professor of Higher Educ. & Director of Graduate Studies Adviser, <u>Dissertation</u> Committee



DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND HIGHER EDUCATION

December 1, 1983

Dear Respondent,

Several weeks ago, I sent you a letter/questionnaire asking your cooperation in a doctoral study on Faculty Development Needs and Preferred Development Practices in Public Research Universities.

Your busy schedule may not have allowed you to respond to and return the questionnaire or you may never have received the questionnaire at all.

Therefore, I am enclosing another copy of the questionnaire. I hope you will take a few minutes from your busy schedule and respond to the attached questionnaire. A return, stamped, self-addressed envelope has been enclosed for your convenience and reply. All responses and respondents will be treated with the strictest professional confidentiality.

I would appreciate receiving your completed questionnaire by $\underline{\underline{\text{December}}}$ 21, 1983.

 * P.S. Please ignore this reminder if you have already completed and returned the first questionnaire.

Thank you for your participation in this project.

Sincerely.

Victor F. Peretomode Doctoral Candidate and Graduate Research Associate Educ. Admin. & Higher Educ.

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Enclosures

cc: Robert B. Kamm

Past University President & Professor of Educ. Admin. & Higher Educ. Chairman, Dissertation Committee

John J. Gardiner

Associate Professor of Higher Educ. & Director of Graduate Studies $\underline{Adviser}$, $\underline{Dissertation}$ $\underline{Committee}$

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APPENDIX E

QUESTIONNAIRES AS WORDED FOR THIS STUDY

Questionnaire for Faculty Members

PART I. Demographics

Instructions Please check one alternative for each of the following questions. 1. What is your sex? (a) Female (b) Male 2. In which academic department do you serve? (a) Agricultural Economics (l) Finance (b) Agricultural Engineering (m) Educational Admin. & Higher Education ____ (c) Animal Sciences ____ (n) Health, Physical Educ. & ____ (d) Biological Sciences Leisure Studies (e) Physics ____ (o) Special Education ____ (f) History ____ (p) Chemical Engineering ____ (g) English ____ (q) Civil Engineering (h) Political Science ____ (r) Computer and/or Information Sciences ____ (i) Sociology ____ (j) Accounting ____ (s) Others (Please Specify) (k) Economics 3. What is your current academic rank? ____ (a) Professor (d) Instructor ____ (b) Associate Professor (e) Other (Please Specify) ___ (c) Assistant Professor 4. Do you hold tenure? ____ (b) No ___ (a) Yes Instructions Please fill in the blank to the right of the question. 5. What is your current age? Including this year, how many years have you been involved in higher

education teaching? (Please years of teaching as teaching assis-

tant are not included.)

7. What percentage of your time as faculty member is devoted to teaching and teaching-related activities in your present academic rank? (Please approximate.)

PART II. Areas of Faculty Development Needs

Instructions

The following is a list of specific areas of faculty development needs. Please indicate how strongly you feel about each area of development need by circling one of the five Liker-type responses for each of the items listed below. (4-Strongly needed, 3=Needed, 2=Undecided, 1=Not Needed, 0=Absolutely not needed) Please respond from the viewpoint of your own perceived needs.

Area	as of Faculty Development Needs	Strong: Needed				solutely t Needed
1.	Improving skills in grantmanship.	4	3	2	1	0
2.	Improving research skills.	4	3	2	1	0
3.	Training in interpersonal relations with colleagues and/or administrators.	. 4	3	2	1	0
4.	Training in personal growth techniques (as opposed to professional growth).	- 4	3	2	1	0
5.	Training in leadership techniques.	4	3	2	1	0
6.	Keeping up with my discipline and greater understanding of my discipline.	4	3	2	1	0
7.	Improving teaching methodology (e.g. lecturing, discussion, tutorial, simulation, individualed instruction techniques).	4	3	2	1	0
8.	Improving specific teaching skills (e.g. listening, communication, problem solving, critical thinking, questioning).	4	3	2	1	0
9.	Improving student testing techniques	4	3	2	1	0
10.	Improving course evaluation techniques.	4	3	2	1	0
11.	Improving academic advising (academic guidance and career counselling).	4	3	2	1	0

		Strongly Needed			Absolutely Not Needed		
12.	Increasing one's skills in motivating students to learn.	4	3	2	1	0	
13.	Training in the application of instructional technology (e.g. audio-visual aids, micro-computers).	4	3	2	1	0	
14.	Improving my skills in helping students develop self-understanding and confidence.	4	3	2	1	0	
15.	Improving interpersonal relations with students.	4	3	2	1	0	
16.	Training in participative governance	. 4	3	2	1	0	
17.	Training in improving decisiong-making skills.	4	3	2	1	0	
18.	Training in conflict-management between/among colleagues.	4.	3	2	1	0	
19.	Training in problem-solving skills.	4	3	2	1	0	
20.	Training in psychology of learning and teaching.	4	3	2	1	0	
21.	Improving publication skills.	4	3	2	1	0	

PART III. Faculty Development Programs/Activities/Practices

Instructions

From the list of faculty development programs/practices/activiites, please indicate the development practice you prefer most in meeting your areas of development needs by circling one of the five Likert-type responses for each of the items below. (5=Most preferred, 4= Preferred, 3=Undecided, 2=Less preferred, l=Least preferred)

	*	Most <u>Preferred</u>			Least <u>Preferred</u>		
22.	Workshops on personal growth skills.	5	4	3	2	1	
23.	Workshops and seminars on career planning and management for faculty members.	5	4	3	2	1	

page 4.

page	4.	Most Preferred			Least eferred	
24.	Temporary load reduction to work on a new course.	5 4	3	2	1	
25.	Temporary load reduction to work on a new piece of research.	5 4	3	2	1	
26.	Travel funds to attend professional conferences/meetings to help faculty develop themselves professionally.	5 4	3	2	1	
27.	Interdisciplinary teams for curricular improvement.	5 4	3	2	1	
28.	Sabbatical leaves.	5 4	3	2	1	
29.	Internship or leaves to work in industry or government.	5 4	3	2	1	
30.	Institutional grants for innovative instructional projects.	5 4	3	2	1	
31.	Individual development plans (formal Growth Contract Plans).	5 4	3	2	1	
32.	Financial support for the purpose of attending a short course program in your discipline or related discipline(s) in another research university during summer (short cour program not more than 4 weeks).	se 5 4	3	2	1	
33.	Faculty exchange programs.	5 4	3	2	1	
34.	Visiting scholars program to speak to faculty members on identified areas of interest and need.	5 4	3	2	1	
35.	Workshops on instructional methodologies and technology.	5 4	3	2	1	
36.	Faculty team to redesign departmental curriculum.	5 4	3	2	1	
37.	Videotaping of classes followed by a critical analysis of tapes by faculty and colleagues.	5 4	3	2	1	
38.	Demonstration of teaching and learning strategies.	5 4	3	2	1	

page 5.

		Most Preferred			Least <u>Preferred</u>		
39.	Released time to develop instructional project(s).	5	4	3	2	1	
40.	Campus conferences/seminars on teaching effectiveness.	5	4	3	2	1	
41.	Workshops on participative problem-solving.	5	4	3	2	1	
42.	Workshops/seminars on conflict management.	5	4	3	2	1	
43.	Workshops/seminars on decision-making.	5	4	3	2	1	
44.	Faculty retreat.	5	4	3	2	1	
45.	Attending short (not more than 4 weeks) evening course(s) in your discipline or related discipline(s) in your institution (with the depart ment paying for the course fees, where necessary).	:- <u>,</u> 5	4	3	2	1	

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Questionnaire for Academic Administrators

PART I. Demographics

Ins	tructions								
	Please check one alternative for each of the following questions.								
1.	What is your sex?								
	(a) Female (b) Male								
2.	What is your current academic administrative position?								
	(a) Dean of a College/School/Division								
	(b) Director of a School								
	(c) Department head/Chairperson (*Department heads/Chair-persons, please do not respond to Question 3.)								
3.	<pre>In which College/School/Division do you serve as dean/director? (**Deans/Directors, please do not respond to Question 4.)</pre>								
(a) Agriculture									
(b) Arts and/or Social Sciences/Sciences									
	(c) Business Administration								
	(d) Education								
	(e) Engineering								
	(f) Others (Please specify)								
4.	In which academic department do you serve as department head or chairperson?								
	(a) Agricultural Economics (m) Educational Admin. &								
	(b) Agricultural Engineering Higher Education								
	(c) Animal Sciences (n) Health, Physical Educ. & Leisure Studies								

(o) Special Education

____ (q) Civil Engineering

_____ (p) Chemical Engineering

____ (r) Computer and/or Infor-

____ (s) Others (Please specify)

mation Sciences

____ (d) Biological Sciences

____ (h) Political Science

____ (e) Physics

____ (f) History

____ (g) English

____ (i) Sociology

_____ (j) Accounting
_____ (k) Economics
_____ (1) Finance

Instructions

Please fill in the blank to the left of the question.

- 5. ____ What is your current age?
- Including this year, how many years have you been involved in University education as an academic administrator/department head and/or dean?
- 7. ____ How long have you served in your present administrative position?

PART II. Areas of Faculty Development Needs

Instructions

The following is a list of specific areas of faculty development needs. Please indicate the degree to which you preceive each area of development as needed by your faculty via five Likert-type responses for each of the items listed below. (4=Strongly needed, 3-Needed, 2=Undecided, 1=Not needed, 0=Absolutely not needed) Please circle one number for each item from the viewpoint of your own perceived development needs for your faculty members as the present dean/director of your college/school or the head of the department.

Area	s of Faculty Development Needs	Strong: Needed	-			solutely t Needed
1.	Improving skills in grantsmanship.	4	3	2	1	0
2.	Improving research skills.	4	3	2	1	0
3.	Training in interpersonal relations with colleagues and/or administrators.	4	3	2	1	0
4.	Training in personal growth techniques (as opposed to professional growth).	4	3	2	1	0
5.	Training in leadership techniques.	4	3	2	1	0
6.	Keeping up with the discipline and greater understanding of the discipline.	4	3	2	1	0
7.	Improving teaching methodology (e.g. lecturing, discussion, tutorial, simulation, individualized instruction techniques).	4	3	2	1	0

		Strongly Needed	Strongly Needed			Absolutely Not Needed	
8.	Improving specific teaching skills (e.g. listening, communication, problem-solving, critical thinking questioning).	4	3	2	1	0	
0	•				_	-	
9.	Improving student testing technique	s 4	3	2	1	0	
10.	Improving course evaluation techniques	4	3	2	1	0	
11.	Improving academic advising (academic guidance and career counselling).	4	3	2	1	0	
12.	Inceasing one's skills in motivatin students to learn.	g 4	3	2	1	0	
13.	Training in the application of instructional technology (e.g. audi visual aids, micro-computers).	o- 4	3	2	1	0	
14.	Improving skills in helping student develop self-understanding and confidence.	s 4	3	2	1	0	
15.	Improving interpersonal relations with students.	4	3	2	1	0	
16.	Training in participative governanc	e. 4	3	2	1	0	
17.	Training in improving decision-making skills.	4	3	2	1	0	
18.	Training in conflict-management between/among colleagues.	4	3	2	1	0	
19.	Training in problem-solving skills.	4	3	2	1	0	
20.	Training in psychology of learning and teaching.	4	3	2	1	0	
21.	Improving publication skills.	4	3	2	1	0	

PART III. Faculty Development Programs/Activities/Practices

Instructions

From the list of faculty development programs/practices/activities, please indicate the development practice you prefer most in meeting

page 4.

your faculty development needs by circling one of the Likert-type responses for each of the items below. (5=Most preferred, 4=Preferred, 3=Undecided, 2=Less preferred, 1=Least Preferred)

	<u>P</u>	Most referre				Least Preferred	
22.	Workshops on personal growth skills.	5	4	3	2	1	
23.	Workshops and seminars on career planning and management for faculty members.	5	4	3	2	1	
24.	Temporary load reduction to work on a new course.	5	4	3	2	1	
25.	Temporary load reduction to work on a new piece of research.	5	4	3	2	1	
26.	Travel funds to attend professional conferences to help faculty develop themselves professionally.	5	4	3	2	1	
27.	Interdisciplinary teams for curricular improvement.	; 5	4	3	2	1	
28.	Sabbatical leaves.	5	4	3	2	1	
29.	Internships or leaves to work in industry or government.	5	4	3	2	1	
30.	Institutional grans for innovative instructional projects.	5	4	3	2	1	
31.	Individual developent plans (Growth Contract Plans).	5	4	3	2	1	
32.	Financial support to faculty for the purpose of attending short course program in his/her discipline or related discipline(s) at another research university (short course not to be more than 4 weeks).	5	4	3	2	1	
33.	Faculty exchange programs.*	5	4	3	2	1	
34.	Visiting scholars program to speak to faculty members on identified area of interest and need to the academic department.	as 5	4	3	2	1	
35.	Workshops on instructional methodologies and technology.	- 5	4	3	2	1	

page		Most Preferi	red		<u>P</u>	Least referred
36.	Faculty team to redesign depart- mental currcilum.	5	4	3	2	1
37.	Videotaping of classes followed by a critical analysis of tapes by faculty and colleagues.	5	4	3	2	1
38.	Demonstration of teaching and learning strategies.	5	4	3	2	1
39.	Released time to develop instructional project(s).	5	4	3	2	1
40.	Campus conferences/seminars on teaching effectiveness.	5	4	3	2	1
41.	Workshops on participative problem-solving.	5	4	3	2	1
42.	Workshops/seminars on conflict management.	. 5	4	3	2	1
43.	Workshops/seminars on decision-making.	5	4	3	2	1
44.	Faculty retreat.	5	4	3	2	1
45.	Attending short (not more than 4 week evening courses in faculty member's discipline or related discipline(s) within the university (with the department paying for the course fees, where applicable).	·	4	3	2	1

APPENDIX F

MEMBERS OF QUESTIONNAIRE VALIDATING PANEL

Members of Validating Panel

1. John Centra

Educational Testing Service Rosedate Road Princton, New Jersey 08541

2. William H. Bergquist

1514 Camino Verde Walnut Creek, California 94596

3. Wilham C. Nelsen

Vice President and Dean of College St. Olaf College Northfield, Minnesota 55057

4. Jerry G. Gaff

Dean Hamline University St. Paul, Minnesota 55104

5. Mervin B. Freedmann

Department of Psychology San Francisco State University 1600 Holloway Avenue San Francisco, California 94132

APPENDIX G

PRELIMINARY DRAFT OF QUESTIONNAIRE

SURVEY STUDY OF FACULTY DEVELOPMENT NEEDS AND PREFERRED PRACTICES IN PUBLIC RESEARCH UNIVERSITIES I AS PERCEIVED BY FACULTY MEMBERS AND ACADEMIC ADMINISTRATORS

PART 1. Faculty Development Needs

The following is a list of specific areas of faculty development needs. Please rate each item with regard to the degree to which you consider it appropriate/relevant for inclusion in a faculty development questionnaire. If you consider a development need to be highly appropriate for inclusion, please circle a corresponding higher number, and if you consider the item less appropriate, circle a correspondingly lower number. Thank you for your help in this validation process.

			Most ppropriate		ast priate
1.	Workshops on personal growth.	4	3	2	1
2.	Workshops and seminars on career planning and management	4	3	2	1
3.	Temporary load reduction to work on a new course.	4	3	2	1
4.	Temporary load reduction to work on a new piece of research.	4	3	2	1
5.	Travel funds to attend professional conferences.	4	3	2	1
6.	Orientation programs for new faculty.	4	3	2	1
7.	Interdisciplinary studies program.	4	3	2	1
8.	Participating in consortia activities.	4	3	2	1
9.	Sabbatical leaves.	4	3	2	1
10.	Internships or leaves to work in industry or government.	4	3	2	1
11.	Grants for innovative projects in teaching.	4	3	2	1
12.	Grants for innovative research.	4	3	2	1
13.	Individualized development plans (Growth Contract Plans).	4	3	2	1
14.	Faculty professional collection (Library).	4	3	2	1
15.	Attending short course program.	4	3	2	1
16.	Exchange study programs.	4	3	2	1
17.	Visiting scholars program to speak to faculty.	4	3	2	1

		Most <u>Appropriate</u>			east opriate
18.	Consultative services for professional.	4	3	2	1
19.	Classroom visitation.	4	3	2	1
20.	Workshops on instructional method- ologies and technology.	4	3	2	1
21.	Redesign curricula.	4	3	2	1
22.	News letters and articles on teaching distributed to faculty.	4	3	2	1
23.	Videotaping of classes followed by a critical analysis of tapes by faculty and colleagues.	4	3	2	1
24.	Awards to outstanding effective teachers.	4	3	2	1
25.	Awards to outstanding research/publi-cation scholars.	4	3	2	1
26.	Demonstration of teaching and learning strategies.	4	3	2	1
27.	Instructional improvement centers.	4	3	2	1
28.	Campus conferences on teaching effectiveness.	4	3	2	1
29.	Faculty teaching seminar programs.	4	3	2	1
30.	Workshops for group leaders or team members.	4	3	2	1
31.	Workshops on participative problem solving.	4	3	2	1
32.	Workshops/seminars on inter-group consultation.	4	3	2	1
33.	Workshops on team-building.	4	3	2	1
34.	Workshops/seminars on conflict management.	4	3	2	1
35.	Action research.	4	3	2	1
36.	Workshops/seminars on decision-making.	4	3	2	1
37.	Periodic faculty study.	4	3	2	1
38.	Faculty retreat.	4	3	2	1
39.	Workshop on inter-personal relations.	4	3	2	1
40.	Collection and joint diagnosis of information about the institution.	4	3	2	1
41.	Utilizing task force to redesign work work load to produce greater job satisfaction.	4	3	2	1

PART II. Faculty Development Programs/Activities/Practices

In the list below, please rate each of the following faculty development programs/activities/practices according to the degree to which you consider it appropriate/relevant for inclusion in a faculty development questionnaire. If you consider an item to be appropriate for the study, circle a correspondingly higher number, and if you consider it as less appropriate, circle a correspondingly lower number.

		Most Appropriate			east opriate
1.	Improving skills in grantsmanship.	4	3	2	1
2.	Improving research, scholarship and publication skills.	4	3	2	1
3.	Improving skill in time-management.	4	3	2	1
4.	Training in self-awareness.	4	3	2	1
5.	Training in interpersonal relations.	4	3	2	1
6.	Training in personal growth techniques.	4	3	2	1
7.	Training in leadership techniques.	4	3	2	1
8.	Keeping with field and greater under- standing of field.	4	3	2	1
9.	Improving teaching methodology (e.g. lecturing, discussion, auto-tutorial simulation, individualized instruction techniques).	4	3	2	1
10.	Improving specific teaching skills and strategies (e.g. waiting, communication, problem solving, critical thinking, questioning).	4	3	2	1
11.	Improving student testing techniques.	4	3	2	1
12.	Improving course evaluation techniques.	4	3	2	1
13.	Improving academic advising (academic guidance and career counselling).	4	3	2	1
14.	Increasing student motivation to learn.	4	3	2	1
15.	Training in the application of instructional technology.	4	3	2	1
16.	Improving on the use of audio-visual aids.	4	3	2	1
17.	Training in helping students develop self-understanding and confidence.	4	3	2	1
18.	Improving interpersonal relations with students.	4	3	2	1
19.	Training in team teaching.	4	3	2	1

		Most		Le	ast
		Appropr	iate	Appro	priate
20.	Training in marketing educational services.	4	3	2	1
21.	Training in participative governance.	4	3	2	1
22.	Training in project development.	4	3	2	1
23.	Training in budgetary techniques.	4	3	2	1
24.	Training in improving decision-making skills.	4	3	2	1
25.	Training in conflict-management.	4	3	2	1
26.	Training in problem-solving skills.	4	3	2	1
27.	Training in group research or project.	4	3	2	1
28.	Training in psychology of learning and teaching.	4	3	2	1
29.	Training in listening skills.	4	3	2	1
30.	Designing/implementing a community service project.	4	3	2	1
31.	Training in creation of educational consulting services.	4	3	2	1

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Preliminary Draft of Questionnaire

PART I. Demographic Data

(1)	Sex (2) Age (3) College/School
(4)	Department/Division
(5)	Full-time: YesNo
(6)	Tenure-track Position: Yes No
(7)	Year became tenured:
(8)	When you expect to achieve tenure:
	Not applicable Within 2 years
	Within 4 years Within 6 years
	Don't know
(9)	Current position: Faculty member
	Department head/chairperson Dean of College/School
(10)	Years you entered higher education as a faculty member or
	Department head/chairperson or Dean of College/School
(11)	Highest degree earned
(12)	Marital status: Single Married
	DivorcedWidowed
(13)	Racial Minority: Yes Nc
	PART II. Faculty Development Programs/Activities/Practices

From the list below, please rate the following faculty development programs/practices according to your most preferred faculty development practices by circling one of the five Likert type responses from most preferred to least preferred program. If you consider a program to be highly preferred, circle a correspondingly larger number, and if you least preferred a program, circle a correspondingly lower number.

1	Most		Leas	st
Pre	ferre	<u>d</u>	Prefe	rred
_	1.	2	2	7

1. Workshops on personal growth.

page 2.			st erred		Least Preferred			
2.	Workshops and seminars on career planning and management.	5	4	3	2	1		
3.	Temporary load reduction to work on a new course.	5	4	3	2	1		
4.	Temporary load reduction to work on a new piece of research.	5	4	3	2	1.		
5.	Travel funds to attend professional conferences.	5	4	3	2	1		
6.	Orientation programs for new faculty.	5	4	3	2	1		
7.	Interdisciplinary studies program.	5	4	3	2	1		
8.	Participating in consortia activities.	5	4	3	2	1		
9.	Sabbatical leaves.	5	4	3	2	1		
10.	Internships or leaves to work in industry or government.	5	4	3	2	1		
11.	Grants for innovative projects in teaching.	5	4	3	2	1		
12.	Grants for innovative research.	5	4	3	2	1		
13.	Individualized development plans (Growth Contract Plans)	5	4	3	2	1		
14.	Faculty professional collection (Library)	5	4	3	2	1		
15.	Attending short course program.	5	4	3	2	1		
16.	Exchange study programs.	5	4	3	2	1		
17.	Visiting scholars program to speak to faculty.	5	4	3	2	1		
18.	Consultative services for professional.	5	4	3	2	1		
19.	Classroom visitation.	5	4	3	2	1		
20.	Workshops on instructional methodologies and technology.	5	4	3	2	1		
21.	Redesign curricula.	5	4	3	2	1		
22.	News letters and articles on teaching							

page	3.		ost erred	<u>P</u>	Least referr	
23.	Videotaping of classes followed by a critical analysis of tapes by faculty and colleagues.	5	4	3	2	1
24.	Awards to outstanding effective teachers.	5	4	3	2	1
25.	Awards to outstanding research/publication scholars.	5	4	3	2	1
26.	Demonstration of teaching and learning strategies.	5	4	3	2	1
27.	Instructional improvement centers.	5	4	3	2	1
28.	Campus conferences on teaching effective-ness.	5	4	3	2	1
29.	Faculty teaching seminar programs.	5	4 '	3	2	1
30.	Workshops for group leaders or team members.	5	4	3	2	1
31.	Workshops on participative problem solving.	5	4	3	2	1
32.	Workshops/seminars on inter-group consultation.	5	4	3	2	1
33.	Workshops on team-building.	5	4	3	2	1
34.	Workshops/seminars on conflict management.	5	4	3	2	1
35.	Action research.	5	4	3	2	1
36.	Workshops/seminars on decision-making.	5	4	3	2	1
37.	Periodic faculty study.	5	. 4	3	2	1
38.	Faculty retreat.	5	4	3	2	1
39.	Workshops on Inter-personal relations.	5	4	3	2	1
40.	Collection and joint diagnosis of information about the institution.	5	4	3	2	1
41.	Utilizing task force to redesign work load to produce greater job satisfaction.	5	4	3	2	1

PART III. Ranking of Preferred Faculty Development.

PROGRAM/PRACTICE

From the list above, rank your three (3) most preferred development program/activity and the three (3) least preferred development practices, with 1,2,3 being most preferred and 4,5,6 in the category of least preferred development programs.

1		lst Most preferred
2		Most Preferred
3		
4	-	
4 — 5		Least Preferred

PART IV. Faculty Development Needs.

The following is a list of specific areas of faculty development needs. Please indicate your desired level of development needs in each of the items by circling one of the numbers on a Likert five point scale from most needed to least needed faculty development need. If you consider a development need to be highly desired/needed, circle a correspondingly larger number.

		Hig Nee	hly ded		Least <u>Needed</u>		
1.	Improving skills in grantsmanship.	5	4	3	2	1	
2.	Improving research, scholarship and publication skills.	5	4	3	2]	
3.	Improving skill in time-management.	5	4	3	2	1	
4.	Training in self-awareness.	5	4	3	2		
5.	Training in interpersonal relations.	5	4	3	2		

page	5.	Highly <u>Needed</u>			Least <u>Needed</u>		
6.	Training in personal growth techniques.	5	4	3	2	1	
7.	Training in leadership techniques.	5	4	3	2	1	
8.	Keeping with field and greater under- standing of field.	5	4	3	2	1	
9.	Improving teaching methodology (e.g. lecturing, discussion, auto-tutorial simulation, individualized instruction techniques).	5	4	3	2	1	
10.	Improving specific teaching skills and strategies (e.g. waiting, communication, problem solving, critical thinking, questioning)	5	4	3	2	1	
11.	Improving student testing techniques.	5	4	3	2	1	
12.	Improving course evaluation techniques.	5	4	3	2	1	
13.	Improving academic advising (academic guidance and career counselling).	5	4	3	2	1	
14.	Increasing student motivation to learn.	5	4	3	2	1	
15.	Training in the application of instructional technology.	5	4	3	2	1	
16.	Improving on the use of audio-visual aids.	5	4	3	2	1	
17.	Training in helping students develop self-understanding and confidence.	5	4	3	2	1	
18.	Improving interpersonal relations with students.	5	4	3	2	1	
19.	Training in team teaching.	5	4	3	2	1	
20.	Training in marketing educational services.	5	4	3	2	1	
21.	Training in participative governance.	5	4	3	2	1	
22.	Training in project development.	5	4	3	2	1	
23.	Training in leadership skills.	5	4	3	2	1	
24.	Training in budgetary techniques.	5	4	3	2	1	
25.	Training in improving decision-making skills.	5	4	3	2	1	

page	6.	Highly Needed			Least Needed	
26.	Training in conflict-management.	5	4	3	2	1
27.	Training in problem-solving skills.	5	4	3	2	1
28.	Training in group research or project.	5	4	3	2	1
29.	Training in psychology of learning and teaching	5	4	3	2	1
30.	Training in listening skills.	5	4	3	2	1
31.	Designing/implementing a community service project.	5	4	3	2	1
32.	Training in creation of educational consulting services.	5	4	3	2	1

PART V. Ranking NEEDED Faculty Development.

NEEDS

From the list of faculty development needs provided in Part IV, please rank your three most needed development needs, with 1,2,3 being in the category of most needed development and 4,5,6 in the category of least needed faculty development.

2		→lst most needed Most Needed
3		<u></u>
4		
5	. * .	Least Needed
		1



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Candidate for the Degree of

Doctor of Education

Thesis: FACULTY DEVELOPMENT NEEDS AND PREFERRED DEVELOPMENT PRACTICES

AS PERCEIVED BY FACULTY MEMBERS AND ACADEMIC ADMINISTRATORS

IN PUBLIC RESEARCH UNIVERSITIES I

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