ABSTRACT

FACULTY REACTIONS TO INSTITUTIONAL CHANGE
An Exploratory Study of the Development
Program of the University of the
Philippines College of Agriculture

By

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The study was addressed to the question: What aspects of institutional change do faculty members accept and what do they resist, and why?

The setting for the study was the University of the Philippines College of Agriculture which had implemented a Five-Year Development Program designed to improve the instructional, research and extension programs and to upgrade the staff and physical plant.

The literature revealed no previous study dealing with the same problem. Hence, a conceptual framework had to be devised taking into account acceptance and rejection as two possible reactions by one individual to a development program.

From faculty members with at least five years experience and on campus at the time of the survey, 50 percent were randomly chosen, yielding a sample of 78. The first phase of the survey was personal interview using open-ended questions

to ascertain the level of knowledge about the development program, the nature of projects approved and disapproved of, and suggestions if the development program were to be undertaken again.

The second phase was a self-administered questionnaire. Responses to the open-ended questions were subjected to content analysis in order to establish categories.

A summary of findings follows:

Generally, the faculty members responded favorably to the various projects. They recognized the potential benefits to the instructional and research objectives of the College. More than 80 percent of the sample expressed approval of at least one component of the Program. Almost 40 percent of the respondents did not express any disapproval, while the other 60 percent did. Statements of disapproval of physical development were classified into: extravagance, inconvenience, priority conflict, and frustrated expectation. Objections about the program development were directed at the procedure followed in bringing about curriculum change. Staff development projects were criticized for subjectivity in the allocation of resources and the insufficient implementation of the salary schedule. Other negative reactions dwelt on the means of obtaining funds and the notion of overexpanding with limited resources.

A large majority of the respondents felt that they could easily adjust to changes, that changes should be undertaken, and that the faculty could not have done as well if things had not changed in the college. A majority also perceived a low level of faculty participation in decision making. Faculty participation in decision making was seen as legitimate by an overwhelming proportion of the respondents. While more than half liked the idea of using committees as a means for faculty participation in decision making, about the same proportion did not think that faculty viewpoints are adequately represented by those who served on college committees.

If the college were to undertake the development program over again, the respondents suggested: (a) continuation of physical improvement; (b) maintenance of staff development, underscoring the need for less subjectivity in the awarding of study grants and other faculty incentives; (c) articulation between the curriculum and national goals; (d) improvement of research program; and (3) concentrated efforts in extension. On the matter of the decision-making procedure, more than half of the respondents suggested improving faculty participation by consultation and greater information dissemination, as well as improvement in the number, composition and use of committees. It was also suggested that the development program be evolved from the

departmental level. Other suggestions called for closer study of needs, problems, and objectives.

Implications of these findings for academic administration and for future research are discussed in the body of the report.

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Responsibility for any shortcomings of the study is solely mine.

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# INTRODUCTION

In 1962, the College of Agriculture of the University of the Philippines formulated a proposal for a Five-Year Development Program designed to achieve the following goals for the College:[1]

1. improve the quality and quantity of the staff,
2. expand and improve the physical plant,
3. improve the quality of the instructional program,
4. expand and strengthen the research program,
5. expand and intensify the agricultural extension program,
6. improve the efficiency in the conduct of business and administrative affairs.

This Program, the first among the colleges of the University, was drawn up by a small administratively-selected group of staff members of the College under the direction of the dean and in collaboration with consultants from the New York State College of Agriculture at Cornell University. Subsequently, the College received financial support for the Program from the Ford Foundation, the Rockefeller Foundation, the Congress of the Republic of the Philippines, and the World Bank.

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[1]References for this Introduction are listed under Philippine Materials in the Bibliography.

Assistance from the Ford Foundation amounted to $6,492,500 from 1962 to 1968. The Philippine Congress provided matching funds for the $6-million loan from the World Bank. A substantial amount also came from the Rockefeller Foundation. These funds have made possible the construction of new buildings, the purchase of new equipment, fellowships and assistantships for advanced studies of faculty members, expansion of library holdings, scholarships for undergraduate and graduate students, and assignment of visiting professors from Cornell University and Asian institutions, among others. The ultimate goal is to strengthen the College of Agriculture to enable it to serve better the development needs of the Philippines and Southeast Asia.

## The Setting

The College is located in Los Banos, Laguna, about 40 miles south of Manila and of the main campus of the University of the Philippines. In its vicinity are found the College of Forestry of the same University, the Community Development Training Center, the Agricultural Credit and Cooperatives Institute, the Dairy Training and Research Institute, and the International Rice Research Institute.

Yearly enrollment in the College in recent years averaged 2,500 students, ten percent of whom were in

graduate studies, and more than a hundred were from other countries. Degree programs include courses leading to the Bachelor of Science in Agriculture, the Bachelor of Science in Agricultural Chemistry, the Bachelor of Science in Agricultural Engineering, the Bachelor of Science in Home Technology, the Master of Science, and the Doctor of Philosophy. Graduates numbered 187 in 1966, 235 in 1967, 207 in 1968, bringing the total alumni to over 6,000.

The faculty totalled 451 in 1967-68, 17 percent of whom had the doctor's degree, and 31 percent the master's. The College is organized into 14 departments. The executive officer is the dean, whose staff includes a director of research, a director of instruction, a director of graduate studies, a director of extension education, and a director of business affairs.

Founded in 1909, the College has had six deans, the first two being Americans. Because of the destruction wrought on the campus in World War II, the College underwent a rehabilitation program from 1952 to 1960 financed in part by the United States Government. Called the "Cornell-Los Banos Contract" because of technical assistance from Cornell University, this program made possible the assignment of 51 American visiting professors, the sending abroad of 55 of the College's faculty for advanced studies, and many other developments geared to improve the College in its pursuit of teaching, research and extension.

## Previous Studies

Among the studies that have been conducted on the College, two are worth noting here. One was a series of case studies of certain faculty members who had received job offers outside but who decided to stay. Reasons for staying included prospects of the development program, specifically as it promised salary increases, housing and other facilities, travel and study opportunities. The other was a review of the renewed UPCA-Cornell Program, conducted as an evaluation of the program from 1962 to 1967.

The University as a whole has been the subject of several surveys. Only one of these is considered relevant. Still in progress, the study is entitled "The University of the Philippines as an Agent of National Development." It focuses on external assistance and its impact on the University during the post-war period.

Although many of these studies involved extensive interviews with members of the college and university community, none has been aimed at the objectives of the present study.

# CHAPTER I: THE PROBLEM

Familiarity with the Development Program of the College of Agriculture tends to give one the following impression: that the College served as an agent of change as well as the embodiment of the total change process. When the College introduced the development program in the University of the Philippines, it functioned as an innovator. When it undertook its own development, the elements in the change process were observable in its own operation. The administration and the committeemen involved in the planning were the change agents; the Program was the innovation; the other constituents of the College were the innovation receivers. Of the many consequences of innovation, personal and immediate reactions of the innovation receivers were singled out as the focus of this study.

## Assumptions

At the outset, it was recognized in this study that change is not easy to bring about in an organization, much less in an academic organization. It was assumed that five years after the initiation of the institutional development program described above, reactions to the Program would

be available from the faculty members who had presumably participated in the change process. Another assumption was that acceptance of and resistance to innovation are two distinguishable states of mind that may simultaneously or sequentially reside in one individual.

## Statement of the Problem

The present study is addressed to the question: What aspects of institutional change do faculty members accept and what do they resist, and why? It will be an attempt to delineate attitudes that academic men hold when confronted with an innovation of a particular kind: the development program implied large scale consequences in the lives of faculty members. The Program envisioned a future for the institution, but it was also the future of all individuals associated with the College. Moreover, it was not only their professional goals and interests that were involved but their personal lives as well. Hence, the problem of what they approve of and what they disapprove of in the Program, whether directed toward particular items of the Program or toward the procedures followed in deciding and carrying out these projects, seemed intriguing. It was recognized that behind an attitude lies some level of knowledge about the attitude object. Investigation of the relationship between level of knowledge about the Program and attitudes toward it was also considered.

Homogeneity of faculty attitudes would be tested when analysis is made of the relationship between faculty characteristics and their attitudes toward the Program. Faculty characteristics selected for this analysis were age, sex, rank, highest degree, institution granting degree, date of degree, primary nature of work, and administrative experience in the College.

A major objective in this study is the development of a conceptual scheme for viewing the phenomena of acceptance and rejection of institutional change, vis-a-vis a technological innovation. The survey findings will be used in the development of such a framework.

In sum, this study has three objectives:

1. To explore the nature of positive and negative attitudes of faculty members toward a program of institutional development.

2. To investigate how different reactions to the institutional development program are related to certain faculty characteristics.

3. To develop a conceptual scheme for dealing with attitudes toward institutional change in higher education.

## Importance of the Problem

The problem is important from two perspectives: the process of institution-building that currently faces

developing countries; and the study of the receptivity of academic organizations to change.

Institution-building. New forces and pressures are bringing about major changes in contemporary higher institutions: social and economic pressures, increasing knowledge, changes in students, changes in faculty orientation, and changes in character of institutions.[1] In the area of administration, changes in the style of university administrators have been reported.[2] In a developing country like the Philippines, there is a need for institutions that can contribute to economic advance and modernization.[3] Because of the predominance of agriculture in the economy of developing countries, considerable attention is focused on agricultural colleges as instruments for national growth.[4] For this reason the colleges of agriculture in these countries have been assisted by international and philanthropic agencies.[5]

A college of agriculture is entrusted with a threefold function: instruction, research, and public service.[6] How it undertakes these functions depends primarily on the quality of its faculty, which in turn is highly dependent on morale. It is necessary to look at faculty perceptions of institutional development because the whole image of the new campus will depend on how the faculty may feel.

Parenthetically, the college would be able to contribute to national development as effectively as the faculty would allow.

The shortage of studies on the process of institution-building was deplored in the summary report of the Agency for International Development and the Committee for Inter-Institutional Cooperation, two agencies experienced in foreign technical assistance.[7]

In 1963, T. R. McConnell, while defining needed research in college and university organization and administration, said that "it should be fruitful to select one or more institutions in which significant changes in general direction, organization or educational programs have taken place and attempt to discover how these innovations had been brought about."[8]

Adaptability to Change Among College Teachers. As the review of literature in the next chapter will show, there has been no previous study on faculty reactions to institutional change. Eichholz succinctly stated that the basic problem in research relating to change is to find means of reducing the lag in time between the introduction and the full acceptance of an innovation.[9] To the academic administrator, it is in shortening this lag that the identification and study of sources of acceptance and rejection might prove valuable.

## Conceptual Framework

This section will be an effort to define the place of this study in organization theory, and how it contributes to the fund of knowledge about adoption and rejection of innovation in higher education.

Organization Theory. As a study of an organization, this study derives its theoretical foundation from organization theory. Argyris' definition of an organization is adopted for this purpose. He defined an organization as: (1) a plurality of parts, (2) maintaining themselves through their interrelatedness, (3) achieving specific objectives, and (4) while accomplishing 2 and 3 adapt to the external environment, thereby (5) maintaining the interrelatedness of the parts.[10]

Argyris also postulated that organizations are defined by a pattern of variables tending toward stability,[11] and that changes would be resisted by the system. The college or university organization apparently fits into this paradigm. The literature of higher education is replete with statements confirming the presence of the phenomenon of resistance to change. Resistance has been notably described among college and university faculty.[12]

Institutional Change and the Faculty. In conceptualizing the process of innovation, researchers have concentrated on acceptance or adoption.[13] However, a theory of rejection has also been propounded.[14] For the purpose of this study, neither of the two approaches was found adequate. A tentative framework was then devised to depict both acceptance and rejection as possible reactions to change, and considering certain critical elements in the institutional change process. (See Table 1.)

Table 1. A tentative outline for the identification of sources of acceptance and rejection of institutional change processes.

| CRITICAL ELEMENTS IN THE INSTITUTIONAL DEVELOPMENT PROCESS | REACTIONS | |
|---|---|---|
| | ACCEPTANCE | REJECTION |
| 1. Nature of the Program | | |
| a. Program development | | |
| b. Human Resources dvlpt. | | |
| c. Physical Resources dvlpt. | | |
| 2. Communication Process | | |
| a. Information | | |
| b. Decision Making | | |

Two critical elements in the process of institutional development are suggested in the framework. A major element is the nature of the development program which can be broken

down into its probable components: improvement and/or expansion of programs, human resources, and physical resources. Program development is intended to refer to curriculum changes, plans for research and public service, or changes in general direction of the institution. Human resources development includes training and other policies relating to personnel. Physical resources development involves growth in campus plant, equipment and other materials. The other element included in the outline is the communication process surrounding the development program, i.e., dissemination of information about the Program, and the procedure in arriving at decisions.

The above outline was presented to delimit the focus of this study and is by no means intended to suggest that it is the complete picture of the institutional development process.

## Overview of Succeeding Chapters

Studies related to the topic are reviewed in Chapter II. A description of the methods used in determining the sample, developing the interview schedule and questionnaire, and the interviewing situation is given in Chapter III. The data is presented in Chapter IV, and discussed in Chapter V.

## CHAPTER II: REVIEW OF RELATED STUDIES

An observer of developments in higher education once remarked that "one of the major paradoxes of our time (is) that institutions of higher learning, which should be preparing our young men and women to enter a world of social and intellectual revolution, are themselves resistant to change."[1] Finding empirical evidence of not only resistance to change but also acceptance of change is a goal this study seeks to achieve.

The paucity of studies on faculty reactions to institutional development was noted earlier. Several studies, however, are reviewed in this chapter because of their relevant concepts and variables. Included are reviews of: (1) a study that deals with faculty resistance to an innovation in a university setting, (2) another study of why teachers resist change in a non-university setting, (3) a study that treats of the impact of changing administrative styles, (4) a study of organizational response to change in a hospital, and finally (5) two studies from diffusion research in formal organizations.

Faculty Resistance to ITV

Evans, et al.[2] of the University of Houston conducted in 1962 a social psychological study of faculty members and their attitudes toward an apparently threatening cultural innovation, instructional television (ITV). The study was designed to: (1) look at the attitude and value systems of an urban university faculty, focusing on attitudes toward ITV, (2) evaluate techniques of overcoming resistance to ITV, thus testing certain hypotheses on attitude change, and (3) examine relationships between general faculty attitudes and extreme attitudes toward ITV. The basic question pursued was: If two university departments which were unwilling to employ telecourses were given unrestricted opportunity to experiment with the medium, ostensibly as a device for evaluating the video-tape recorder as a means of qualitatively improving instruction, would their attitudes toward ITV be affected in the process? The findings revealed dramatic modifications of the attitudes toward ITV in a generally more favorable direction. One of the two departments studied, in fact, elected to change its previous decision and present a telecourse, while the other began to use its taped efforts as a standard portion of regular courses. The results also showed statistically significant differences in personality, philosophy of education, and behavior, between professors favorable to and unfavorable to teaching by instructional television.

The comment towards the end of the report by Evans, et al. is significant:

> In a broader sense, we would further postulate that in order to influence hostile ITV attitudes in specifically hostile university departments, careful attention must first be given to the utility and profitable function of the medium. After that care must be taken that no vertical pressure is exerted. ...The faculty must see that ITV is an extension of their talents and not an amputation.[3]

To the present investigation, the main value of Evans' work is in having uncovered certain correlates of both negative and positive attitudes. The stress placed on the utility and profitable function of the medium also reflects a consideration of a characteristic of the innovation, an important factor in the innovation-adoption process.[4] However, no intensive analysis of resistance to ITV was undertaken, nor were degrees of resistance established.

## Resistance to Audio-Visual Materials

Eichholz[5] developed a scheme for classification of negative attitudes of schoolteachers toward audio-visual materials ranging from films to globes. Questionnaires and personal interviews were used to collect data. Eichholz identified five forms of rejection by elementary schoolteachers: ignorance, suspended judgment, situational rejection, personal rejection, and experimental rejection. Ignorance was attributed to lack of information; suspended judgment came

about when subjects found that the data was not logically convincing; situational rejection was related to the individual's perception that the innovation was not economically advantageous; and experimental rejection resulted when past and present trials failed to satisfy the individual.

Eichholz' study provides a novel approach to the understanding of the innovation process. Some of his concepts have been infused into the present study. But still, the objectives are limited to the perceptions of the innovation, only slightly do they refer to the context in which the innovation is introduced, and they ignore the manner by which it was introduced.

Innovation in a Hospital

Another investigation in a non-university setting is that by Hage,[6] a case study of a hospital and the attitudes of physicians toward a major change involving the addition of full-time teacher physicians to the staff. The change was called structural innovation because it represented an addition of a new social position with new activities. Its intended consequence was improved patient care and medical education through adding new activities--teaching rounds, morning report, etc. Physicians' predisposition to accept or reject the change was found to be related to these variables: work and education patterns,

and departmental characteristics. Departmental history of change was seen as most important. Data showed that a physician was more likely to accept the addition of full-time teachers if he belonged to a department which had a history of change. The study also underlined the unanticipated consequences of innovation. Although conflicts resulted, these led to more and better communication between the administration and the staff.

Changing Administrative Style

The study by Demerath, Stephens and Taylor[7] is highly pertinent to a discussion of faculty reactions to change. Conducted in a university, the work is unique in that the survey was made before the change occurred and again after the change. It was hypothesized that the administrative styles of two chancellors, one succeeding the other, would affect the following outcome variables:

1. the general excellence of the University as rated by the faculty,
2. faculty satisfaction with professional and personal conditions,
3. faculty ratings of their influence on educational policies.

Interaction variables considered were faculty participation in university government, and adequacy of information and communication as rated by faculty. The independent variable was administrative style. The results confirmed the hypotheses.

Because Demerath followed a sociological approach, perhaps he could not be blamed for failure to include in his analysis personality variables that could contribute to an understanding of the effects of change on the individual faculty member. The composition of the faculty was not defined in either of the two survey periods. Could one correctly assume the constancy of faculty composition? Also, could the difference in the tenure of office have a biasing effect on faculty perceptions of administrative style? In short, a number of factors were not accounted for in Demerath's quasi-experimental study.

Diffusion Research in Organizations

Diffusion research has had a tradition of investigations on the innovation process. In an effort to bring about a convergence between research in higher education and diffusion, two research reports are cited.

Lin, et al.[8] examined the process of innovation assimilation by teachers in three Michigan high schools. The unit of analysis employed was the individual teacher--a departure from previous educational innovation research. The investigation served as a pilot study for a similar inquiry in Thailand which is reviewed below. Two new dependent variables were felt important in studying diffusion in a formal organization: Innovation internalization,

defined as the extent to which a member of an organization perceived the innovation to be relevant and valuable to his role performance; and Change orientation, an individual's degree of general predisposition toward change. The survey instrument was a questionnaire which teachers completed in a meeting called for the purpose. The innovation was "schedule modification" in the high school. Results showed a profile of variables related to innovation assimilation by teachers. It was found that information level about the innovation, group norm, participation and perceived legitimacy of participation were significantly related to innovation internalization. On the basis of the results, the researchers suggested that the social-structural aspects of the institution be studied in order to lessen potential resistance to change. Especially mentioned was the relationship between teachers and the principal, and among teachers in a school.

Rogers, et al.[9] investigated the spread and acceptance of ten different innovations in government secondary schools of Thailand. Source of data was a questionnaire accomplished by teachers and principals in 38 sample schools. Correlation analysis yielded again a profile of variables associated with the dependent variables (namely, time of awareness, perceived time of school adoption, and perceived beneficiality of innovation), many of which had rather low

correlation coefficients. Limitations of the study were given, and these included cultural bias, and lack of attention to social-structural effects of innovation and system norms inhibiting change.

At least one other limitation that may be added has to do with the knowledge or cognitive factor: no attempt was made to determine how much knowledge the respondent had about the innovations, the beneficiality of which he was being asked to assess. Perhaps due to the emphasis laid on correlational analysis, the qualitative aspects of attitudes and the reasons behind them were not considered. Lastly, the severe handicap of most diffusion research, the reliance on memory to measure variables like time of awareness and time of adoption, cannot be dismissed lightly.

Summary

Six studies were examined since they appeared to bear relevance to the concepts and techniques adopted for this study. No study was found dealing with the total institutional development process. The studies reviewed had one thing in common: the unit of analysis was the faculty member or teacher, and this is a departure from previous studies on educational innovation where institutions were the unit of analysis. Not covered in the review are researches on faculty in the Philippines and other faculty studies in the United States, because they did not deal with the problem of change in higher education.

## CHAPTER III: COLLECTION OF THE DATA

The sampling procedure, the instrumentation and the interviewing procedure are described in this chapter.

### Sampling Procedure

For purposes of this study, a faculty member was defined as one listed by the Personnel Office of the College as belonging to the academic staff. Only those on campus at the time of the survey with at least five years experience as full-time staff members in the College were included in the population. A list of 166 such faculty members was obtained from the Personnel Office. Those individuals who had had relatively close acquaintance with the Five-Year Development Program were excluded. Eight individuals were either so identified or on leave, and were excluded. The remaining 158 members of the population were composed of 72 with rank of assistant professor or higher, and 86 with rank of instructor. The names were listed in alphabetical order, and numbered consecutively. Using a table of random digits, 50 per cent of those with professorial rank and 50 per cent of those with rank of instructor were chosen as the sample.

The stratified-random sample yielded a total of 43 instructors and 36 with professorial rank. The latter

figure was diminished by one respondent who declined the interview. Thus the final sample was a total of 78.

The pretest sample of 15 was drawn at random from among the unselected members of the population.

Instrumentation

The survey was divided into two phases. The first phase was an unstructured interview that included the following questions:

1. What do you know about the Five-Year Development Program?
2. What specific projects under the FYDP do you most strongly approve of?
3. What specific projects under the FYDP do you most strongly disapprove of?
4. If the FYDP were to be done all over again, what would you suggest regarding the kind of projects that should be undertaken?
5. If the FYDP were to be done all over again, what suggestions would you make with regard to the procedure of planning and deciding on specific projects?

These open-ended questions were intended to elicit deep-seated feelings on the part of the respondents. Free responses were considered necessary in getting at points which the respondents were most concerned about. It should be noted that the interview was prefaced with an assurance from the interviewer that the responses would be kept confidential.

In the second phase, each respondent was given a questionnaire to fill out following explanation by the interviewer. The first page of the self-administered

questionnaire contained 10 statements with a blank opposite each where the respondent was to write down the number corresponding to the word that best described his degree of agreement with the statement. The directions read as follows:

> "Please indicate to what extent you would agree with each of the statements below using the following code:
> 3-Always
> 2-Usually
> 1-Sometimes
> 0-Never"

The first three statements (nos. 1-3) were designed to measure "Self-Perceived Orientation to Change in General." This variable was adopted from Lin's study; the statements were modified to suit the college faculty respondents. When the scores on the three statements were tested for interrelationships, the coefficients were not found to be significant enough to warrant using the variable. Each of the statements was then analyzed separately as were all the rest of the scaled items on the first page of the questionnaire. The first three statements were as follows:

1. When confronted with changes, I feel that I can easily adjust.
2. To maintain a healthy and stable educational system, we must keep it the way it is and not undertake change.
3. The faculty could have done just as well if things hadn't changed so much in this college.

The next four statements were significantly inter-related, with coefficients reaching a significance level

of .001. The variable that was being measured was "Perceived Level of Faculty Participation in Decision Making," again adopted from Lin's work and modified accordingly. These statements are the following:

4. The faculty of this college exerts a strong influence on the administration in the decision-making process.
5. Faculty members are consulted first before the administration makes any decisions that affect them.
6. College committees constitute an effective means for involving the faculty in meaningful participation in decision making.
7. Faculty viewpoints are adequately represented by those who serve in college committees.

Obviously, the statements go further than just level of participation; the manner of participation is also involved. If the responses would converge near or about the "Agree always" point of the scale, then high satisfaction would be inferred.

The last three statements were about "Perceived Legitimacy of Faculty Participation in Decision Making," still another adaptation from Lin's variable. The obtained correlation coefficients showed that the three statements were significantly interrelated at the .001 level. The statements:

8. Faculty members should be asked to take part in decision-making discussions regarding college matters.
9. If the administration of this college wants to get things done, it should only go ahead with what it thinks will benefit the college after consulting faculty members.
10. Faculty members should first be asked before the administration makes any decisions that affect them.

After asking the faculty respondents to describe what is, these last three statements now ask what ought to be. These two variables together are expected to provide certain clues as to the process of organizational decision making which is considered here as an important factor in institutional change.

The last part of the self-administered questionnaire dwelt on faculty characteristics: per cent of time devoted to certain kinds of activities, teaching, research, extension, administration and committee work; administrative positions held, if any; highest degree held; when and where highest degree was earned; academic rank. Data on age was separately obtained from the records in the Personnel Office of the College.

Pretests were undertaken to improve the questionnaire.

Interviewers and Interviewing

Three interviewers, of whom the author was one, administered the survey instruments. The two other interviewers were recruited from the survey staff of the Institute of Mass Communication, another unit of the University of the Philippines. Based on the recommendation of their immediate superior, they were employed from pretest until the final interviews. They were a male and a female, both research assistants in the Institute who had actual experience with

field survey methods in social research. Of the 78 interviews, only six were conducted by the researcher himself. Of the rest, 15 were done by the male interviewer who had to leave the survey before its termination because his services were needed at the Institute. It was interesting to note that the respondents, predominantly male, seemed to manifest greater willingness to respond at length to the female interviewer than to the male interviewers, if the length of transcribed responses is taken as the measure. Since only about one-fourth of the interviews were conducted by the male interviewers, this seemingly biasing effect was considered minimal. Prior to the pretest, the interviewers were briefed on the purpose and methodology of the study. The pretest phase helped bring out the problems in the interviewing situation and remedies to these were discussed. Interviewing time ranged from 30 minutes to one hour. Most of the interviews were by appointment. All interviews were held in the offices of the respondents.

Summary

A total of 78 faculty members was interviewed using structured and unstructured techniques. The interview questions covered knowledge about the development program, reasons for approval or disapproval of various components

of the program, and suggestions if the development program were to be undertaken all over again. A self-administered questionnaire included questions eliciting personal data, and reactions to statements on change orientation, level of faculty participation, and legitimacy of faculty participation in decision making.

## CHAPTER IV: PRESENTATION AND ANALYSIS OF THE DATA

The data is presented in the following order: characteristics of the respondents, their level of knowledge about the development program, bases for approval of the program components, bases for disapproval of the program components, suggestions regarding the nature of the program and the decision-making procedure, faculty orientation to change, and perceived level and legitimacy of faculty participation in decision making.

### Characteristics of the Respondents

There were 59 males (75.6%) and 19 females (24.4%) in the sample. Of the males, 33 (56%) were instructors and 26 (44%) were with professorial rank. The female group had 10 (53%) instructors and 9 (47%) with professorial rank. Table 2 shows how this classification was further grouped into those with bachelor's, master's, and doctor's degrees.

Table 2. Sex, rank and highest degree of respondents.

| Highest degree | Male | | Female | | Total | % |
|---|---|---|---|---|---|---|
| | Instr. | Prof. | Instr. | Prof. | | |
| Bachelor's | 18 | 0 | 3 | 1 | 22 | 28.2 |
| Master's | 15 | 7 | 7 | 5 | 34 | 43.6 |
| Doctor's | 0 | 19 | 0 | 3 | 22 | 28.2 |
| Total | 33 | 26 | 10 | 9 | 78 | 100.0 |
| % of Total | 42.4 | 33.3 | 12.8 | 11.5 | 100.0 | |

Advanced degrees were usually obtained from the United States, as shown in Table 3. The other countries from which advanced degrees were obtained included England, Australia and New Zealand, with one graduate each. Besides the University of the Philippines, two private universities were represented by three respondents among those who graduated from Philippine schools.

A significant chi-square was noted in the relationship between highest degree and date of obtaining the degree. The higher the degree, the more recent the date of graduation tended to be (Table 4).

Table 3. Respondents' highest degree, where and when obtained.

| Highest degree | Where obtained | | | When obtained | |
|---|---|---|---|---|---|
| | Phil. | U.S.A. | Other* | 6 yrs or less | More than 6 yrs |
| B | 22 | 0 | 0 | 7 | 15 |
| M | 12 | 20 | 2 | 22 | 12 |
| D | 0 | 21 | 1 | 18 | 4 |
| Total | 34 | 41 | 3 | 47 | 31 |
| % | 43.6 | 52.6 | 3.8 | 60.3 | 39.7 |

*England, Australia, New Zealand.

Administrative experience was claimed by 43 (55.1%) out of 78. Administrative experience included any position to which a faculty member was appointed, such as being department chairman, head of division or chief of section.

When asked to indicate the percentage of time devoted to different duties, the respondents gave varying replies which were then categorized into: "more teaching than any other," "more research than any other," and "other." The primary nature of work of the 78 respondents was divided among: teaching, 31 (39.7%); research, 18 (23.1%); and other, 29 (37.2%). The category of "other" included combinations of teaching, research, extension, or extension duties alone, or teaching and research combined with administration, etc., not one of which amounted to any significant number. Of the total respondents, only six (7.7%) were not teaching, nine (11.5%) were not doing any research at all, 46 (59%) were not assigned administrative duties at the time of the survey, and 25 (32.1%) had no committee work.

Age groups formed were the following: 26-31 years, 32-37 years, and 38 years or older. The resulting distribution was as follows: 22 (28.2%) fell in the youngest category; 32 (41%) were classified in the middle category; and 24 (30.8%) belonged to the oldest group.

From the faculty roster furnished by the Personnel Office the departmental affiliation of each faculty member was obtained. Departments were grouped into four fields of study: physical sciences, animal sciences, plant sciences, and social science and humanities. The distribution of the respondents is shown in Table 4.

Table 4. Divisional fields of study of the respondents

| Division | Sample | | All Faculty | |
|---|---|---|---|---|
| | No. | % | No. | % |
| Physical | 12 | 15.4 | 62 | 23.3 |
| Animal | 17 | 21.8 | 56 | 21.0 |
| Plant | 26 | 33.3 | 76 | 28.6 |
| SS & Human. | 23 | 29.5 | 72 | 27.1 |
| Total | 78 | 100.0 | 266 | 100.0 |

along with the distribution of full-time faculty with rank of instructor or higher as gathered from the 1967-68 faculty roster.

The physical sciences division was composed of the departments of agricultural chemistry, agricultural engineering, soils, and applied mathematics. Animal sciences included animal husbandry and entomology. Plant sciences embraced the departments of botany, agronomy, and plant pathology. Social sciences and humanities included the departments of economics, communication, education, home technology, farm and home development office, and humanities.

It can be seen from the table that the distribution of the respondents does not seem to differ from the distribution of full-time faculty with rank of instructor or higher who were on campus at the time of the survey. Only the physical sciences division registered a discrepancy of eight per cent.

Level of Knowledge About the Development Program

What did the faculty members know about the Five-Year Development Program?

Responses were subjected to content analysis and grouped into four categories shown in Table 5.

Table 5. Frequency of mention of different components of the development program.

| Program components mentioned | No. | % |
|---|---|---|
| Physical development only ("low") | 17 | 21.8 |
| Physical, staff dvlpt. ("moderate") | 30 | 38.5 |
| Physical, staff, program dvlpt. ("high") | 22 | 28.2 |
| All of above and admin. impvt. ("high") | 9 | 11.5 |
| Total | 78 | 100.0 |

Under the first category, interpreted as "low" level of knowledge, responses included those referring to the building construction, the acquisition of laboratory equipment, installation of an electronic computer, and related projects. The second category, labelled as "moderate", consisted of two elements in the Program. In addition to the first category, mention was also made of opportunities for advanced studies by faculty members. Among the responses in this category were the following:

> "Every year, staff members are sent abroad, some to conferences."
>
> "They are encouraged to go abroad for graduate studies on their own or supported by Ford, Rockefeller or others."

> "There is a raise in salary after a certain period once you earn a degree, but this has been only partially implemented."

Mention was also made of the University of the Philippines-Cornell Graduate Education Program, or UPCO for short. This refers to the Ford Foundation-supported program of graduate education and research providing for fellowships, assistantships, visiting professors, and funds for research projects and the library. Although having a distinct appellation, this program was actually a segment of the overall scheme of institutional development. Some faculty members, particularly those respondents classified in the first category above and who were aware of staff development, thought that this UPCO program was not part of the Five-Year Development Program. The following quotes bear this out:

> "Faculty improvement was not exactly under the development program, but through foundations--Ford, Rockefeller..."

> "UPCO handles staff development."

> "I don't think there is any on faculty development."

> "There is a parallel program of faculty development which is not under the Development Program since it is not covered by the 47-million-peso loan from the World Bank."

Even salary increases were sometimes considered separate:

> "The increase in salary is not a part of the development program; it is from the University."

The third and the fourth categories were classified as "high" level of knowledge about the program. The third category included both physical and staff development, plus mention of strengthening the research and/or instructional program. More details and more program components distinguished the responses in this category from the previous two. Respondents in this level recognized efforts to upgrade course offerings, by revising existing courses, instituting new ones, and lengthening the agriculture curriculum to five years. The increasing emphasis on graduate programs was also recognized. Increase in the number of research projects, and the involvement of the College in research oriented to the nation's problems were cited.

Greater ability to articulate about the various components of the development program was demonstrated by respondents who were grouped into the fourth category. Descriptions almost sounded like a recitation of the development program as described in College publications. Including the three categories mentioned above, statements were made of efforts to improve extension and administration. One observed the expansion of his department's function, thus:

> "Whereas before the...department was not involved in extension, now we are being enjoined towards it ...conducting workshops and seminars...using local materials."

Not one of the respondents mentioned only staff development or only program development; each respondent showed some knowledge of the physical development program.

If the categories in Table 4.4 were collapsed to combine the first two into one and the last two into the other, a majority (60.3%) would be found to be familiar with only two components, the physical and the staff development. The number that compose the "low" and the "moderate" would be greater than those composing the "high" level of knowledge.

The data reflected a tendency for faculty members to dissociate the less apparent items from the Program and to focus on the easily observable ones. Physical development, as evidenced by the construction underway since 1965, is not easy to overlook. Neither is staff development hard to detect when every year department staffs witness the departure of a number of faculty members going abroad for graduate studies. But there seems to be a confusion about what really comprises the development program.

Also, instead of viewing the changes or projects as part of one package plan, they are seen as separate entities. A complete, accurate picture of the development program then cannot be said to have been acquired by the majority of the faculty respondents.

Factors Associated with Level of Knowledge

Certain faculty characteristics were tested for their possible relationship with level of knowledge about the Program. The data is shown in Table 6 for the factors that were found positively associated with knowledge level.

Table 6. Respondents' level of knowledge about the development program, primary nature of work and divisional field of study.

| Level of Knowledge About Projects | Nature of Work | | | Field of Study | | | |
|---|---|---|---|---|---|---|---|
| | Res. | Tchg. | Other | Phys. | Ani. | Plt. | SS&Hum. |
| Low to moderate | 9 | 17 | 21 | 7 | 13 | 11 | 8 |
| High | 9 | 14 | 8 | 4 | 4 | 13 | 15 |
| Total | 18 | 31 | 29 | 11 | 17 | 24 | 23 |

Only a slight association (chi-square of less than .10) was found between nature of work and level of knowledge. While both the "teaching" and "other" groups seemed to have low to moderate level of knowledge, the situation was most acute in the "other" group. Respondents who were doing research more than any other work were equally divided between the first and the second categories adopted above.

Another factor was field of study. A majority of the respondents whose departments were grouped under physical and animal sciences were seen to possess "less" knowledge than those in the plant sciences and social sciences and humanities.

When only the male instructors and professors were considered in testing the relationship between knowledge level and rank, a significant chi-square at the .10 level resulted. A similar test among the female instructors and professors yielded insignificant results.

These other faculty characteristics were not associated with level of knowledge about the development program to any statistically significant degree: administrative experience, highest degree earned, where degree was obtained, and academic rank. When the relationship between knowledge level and nature of approved of projects was tested, no significant chi-square was found. However, it was seen that the faculty generally approved of what they knew comprised the Five-Year Development Program, regardless of their level of knowledge. Similar results and observations were obtained between knowledge level and nature of disapproved of projects. In the latter, however, there was an implicit desire to criticize not the projects themselves but the procedure in bringing about the program. More will be said about this later.

## Positive Reactions to the Program

To determine the objects of approval among the different components of the development program, the respondents were asked: "What specific projects under the Five-Year

Development Program do you most strongly approve of? Why?" Responses were again subjected to content analysis and classified according to the categories established earlier.

The physical development aspect of the program appeared to be most strongly approved. (See Table 7.)

Table 7. Distribution of categorized responses on nature of projects most strongly approved of.

| Nature of Projects | No. | Per cent |
|---|---|---|
| Physical development | 29 | 37.2 |
| Staff and Program development | 10 | 12.8 |
| Staff, Program, Physical development | 25 | 32.1 |
| "All" (not specified) | 10 | 12.8 |
| None mentioned | 4 | 5.1 |
| Total | 78 | 100.0 |

"All" the projects that they could think of were agreeable to one out of eight respondents. Such projects were not defined by them. On the other hand, a few were evasive and did not mention any particular project nor express any relevant reaction to the question.

It should be pointed out that a high percentage (82.1%) of the respondents had something to approve of specifically. In the succeeding section, an attempt will be made to delineate the bases for acceptance or approval of various components of the development program starting with physical development. A sampling of remarks will be presented to illustrate how the faculty reacted positively to each component.

Bases for Approval of Physical Development

Two kinds of reasons were found among the responses as to why faculty members approved of physical development. These are: functional and pragmatic reasons. Functionality was the term given to a group of responses that seemed to define the utility and necessity of additional space, equipment, and other materials for instruction or research. Pragmatism was used to refer to that group of responses having to do with image-building and the affective benefits of physical improvement.

A sampling of responses classified under Functionality follows:

> "As of now our physical facilities are inadequate so that the construction of new buildings is what we need most."
>
> "Of course the building plans. We really have to renovate the College. Our buildings are too antiquated. Now with the growing concern over our graduate programs, we cannot just have antiquated buildings and obsolete equipment."
>
> "Modern facilities and the new buildings will provide better research projects and results."
>
> "The old buildings are so far apart and the students are inconvenienced. Now, a number of departments are housed in one building. The college as a regional center for agriculture means that there really is a need for physical uplifting."
>
> "These improvements enhance educational growth, and the research output of the faculty is increased."

> "We can't do anything without these physical structures. Especially in chemistry, no matter how creative they are, without the instruments, they can't do anything."
>
> "Because we are increasing in number, both in staff and students, we have to get the necessary space to accomodate all these people."

The pragmatic factor is illustrated by the following remarks:

> "The acquisition of facilities helped us a lot as far as public relations is concerned. Before these facilities came in, the College was considered second fiddler to the International Rice Research Institute; now it rates as well if not better."
>
> "I strongly approve of physical plant development because human beings, to be creative, should live in an inspiring environment."

## Bases for Approval of Program Development

Responses favoring program development, i.e., changes in the curriculum and research program, did not seem as diverse as the bases for approval of physical development. The respondents who expressed their approval of program development concentrated their comments on the paramount importance of curricular and research innovation as a legitimate area of concern. Here is a sampling of the responses:

> "Improvement of the curriculum has opened up more opportunities for the graduates especially outside and it has kept us in step with other institutions with the same offerings."

> "I think that even without facilities and even without enough faculty housing, we can serve the students more. By and large, we will be serving the country on the whole by producing good students, by making full use of the facilities on hand and the faculty material that we have."

Bases for Approval of Staff Development

The orientation of the respondents on the subject of staff development was focused on the need for advanced training of faculty as well as for the retention of faculty using appropriate incentives. The sampling below reflects these two elements of concern:

> "I approve of the sending abroad of qualified staff members, so that 50-60 per cent will be Ph.D.'s and the rest master's degree holders. This will make for a strong faculty, especially now that the College is being made the stronghold of education in the Far East."

> "I strongly approve of staff development in all its aspects. An untrained and undeveloped staff would be misfits in a modern physical set-up."

> "Salary improvements. As an academic institution, we should have good people here and to keep these people, good pay is necessary since there are better offers outside."

> "Upgrading of faculty members, because what's the use of nice buildings if the staff is weak. Also salary increase which is the only incentive for efficiency in any kind of endeavor."

> "Requiring graduate degrees of faculty members in order to upgrade the standards of teaching."

> "Encouragement of faculty members to finish graduate courses--they can transmit their knowledge easier and better to their students."

was brought about, as the following quotes show:

> "I disapprove of the implementation rather than the projects themselves. Because of the rush, people involved in the academic program were not involved as much as they should have been; and if they were at all involved, they were not given sufficient time to really weigh things."
>
> "There wasn't very much done to justify the lengthening of the agriculture curriculum from 4 to 5 years to convince us of the need for this. Nor was there much thought put to mechanics of planning courses."

These statements indicate that curriculum change was handed down from the top, but scarcity of responses dealing with this point prevents any generalization.

Staff development received criticism from two vantage points: the human factor, and the economic factor. Three responses illustrate the human factor. These point to the subjectivity in the manner of selecting the beneficiaries of the staff development program:

> "Faculty development is being implemented in a highly subjective manner. No definite criteria are set to select those who will be sent abroad. They still choose their own man. There is favoritism. This is the most serious problem."
>
> "On the development of the staff, it seems that there are many good materials that are not sent at all. The mechanics of selection are faulty."
>
> "I disapprove of the manner scholars under the UPCO program abroad are being treated...no housing, no cars; their living conditions are not taken care of in contrast to how the Americans are being treated here."

Two advantages of having visiting professors (sometimes called consultants) were cited:

> "Having visiting professors is good because there are things we can learn from them and they can learn from us."
>
> "The number of teachers has been augmented. We have benefitted greatly from UPCO because of the availability of consultants."

These remarks point to the advantages of having visiting professors augment the learning experiences and supplement faculty resources made scarce by the departure of resident faculty for graduate work abroad. In an annual report of the Dean of the College, this contribution of the American and other visiting professors was acknowledged.

Summary of Bases for Approval

On the whole, it can be said that the faculty respondents strongly favored having the development program undertaken. They recognized the benefits accruing from the development program and its importance in achieving institutional goals.

The factors of functionality and pragmatism were identified among the responses favoring physical development projects. The other responses did not lend themselves to easy identification of descriptive factors, except in the responses that signified approval of "all" the projects where the interrelatedness of the projects and the relative importance of each project was recognized.

## Negative Reactions to the Program

Almost four out of 10 respondents (38.5%) did not express any disapproval on any of the projects. A little over one-fifth (21.8%) had some objection about the implementation or the nature of the physical development program. One out of six (17.9%) disapproved of some aspects of the staff and program development. Almost one-sixth (15.4%) signified negative feelings toward the other projects. No response to the question came from a small minority (6.4%). As before, these categories were established using content analysis.

Table 8. Distribution of categorized responses on nature of projects most strongly disapproved of.

| Nature of Projects Disapproved of | No. | Per cent |
|---|---|---|
| None | 30 | 38.5 |
| Physical development projects | 17 | 21.8 |
| Staff/Program dvlpt. projects | 14 | 17.9 |
| Other | 12 | 15.4 |
| No answer | 5 | 6.4 |
| Total | 78 | 100.0 |

In the following sections, the bases for disapproval are classified and illustrated with direct quotes drawn from the responses to the question, "What specific projects under the Five-Year Development Program do you most strongly disapprove of? Why?

Bases for Disapproval of Physical Development

Four kinds of responses were noted in this category. Expressed in negative terms, they are: extravagance, inconvenience, priority conflict, and frustrated expectation. Each of these factors is explained and illustrated below.

Extravagance or unnecessary cost refers to responses that deplored expenditures perceived as unnecessary by the respondents. More than anything else, this includes the demolition of buildings in order to make way for new ones.

> "It would have been possible to save some buildings."
>
> "The cost of new buildings is too extravagant. If we cut down on the cost, we could build more buildings."
>
> "It puzzles me that all these old buildings had to be torn down when they can still be used for years."
>
> "I object to the demolition of a lot of buildings which could have been used for something else."

Inconvenience was a factor mentioned by respondents who were affected by the building construction. When a building was torn down, temporary relocation of faculty and students was made. Informal talks with staff members of departments which were relocated bore out the inconvenience that respondents mentioned during the formal interviews. Inconvenience is also caused by "the slow pace of building construction." This is most probable especially when construction deadlines are set and re-set, thus lengthening the time for waiting by staff and students. This feeling is contained in the following statement:

> "The planning of buildings is not too good. There is confusion especially with regard to the target date of occupancy."

Priority conflict is used to describe the dissatisfaction of certain respondents with the setting up of priorities. One respondent said: "We have money for equipment, but where will we house this if we don't have a building?" Another replied:

> "The immediate construction of buildings has been the priority of the administration in the Five-Year Development Program. There are more important concerns. Even with our old buildings we managed to attain our objectives."

Frustrated expectation refers to the disappointment expressed by certain members of the staff, particularly of departments that felt left out in the building program. A faculty member said:

> "Years ago, we were prepared for changes in building and equipment. Now we are frustrated because we weren't given a building."

## Bases for Disapproval of Staff and Program Development

Objections from 14 (18%) respondents were directed towards the staff and program development projects. Those who had something to say against the staff development usually had things to say also against the program development projects.

Program development was considered particularly with regard to curriculum revision. Here, the objection was levelled purely at the manner in which curriculum change

was brought about, as the following quotes show:

> "I disapprove of the implementation rather than the projects themselves. Because of the rush, people involved in the academic program were not involved as much as they should have been; and if they were at all involved, they were not given sufficient time to really weigh things."
>
> "There wasn't very much done to justify the lengthening of the agriculture curriculum from 4 to 5 years to convince us of the need for this. Nor was there much thought put to mechanics of planning courses."

These statements indicate that curriculum change was handed down from the top, but scarcity of responses dealing with this point prevents any generalization.

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>
> "On the development of the staff, it seems that there are many good material that are not sent at all. The mechanics of selection are faulty."
>
> "I disapprove of the manner scholars under the UPCO program abroad are being treated...no housing, no cars; their living conditions are not taken care of in contrast to how the Americans are being treated here."

One of the fringe benefits extended to a limited number of faculty members is rental housing, now expanded with the onset of the development program. One faculty member bewailed this housing project, thus:

> "Faculty housing--this creates some kind of sectionalism, that is, people living in housing projects react differently--they feel more 'high class'. This breeds segregation."

Negative responses that expressed faculty disappointment with the salary scale were grouped into the economic factor. The faculty were disappointed, according to one respondent, "because it has not been implemented to its fullest extent."

Bases for Disapproval of Other Aspects

Since the question as posed sounded broad, it invited responses that were not easily classifiable under any of the foregoing categories, and thus were subsumed under "other" objects of disapproval. A principal concern of the respondents who were thus classified was the danger of "over-expansion" of the College, thus:

> "The national involvement of the College tends to rob it of attention to some of the teaching functions. Both sides are legitimate--national development or thorough instructional function--but which is to be attended to first with our limited manpower?"

> "If we are not careful, we might run into the danger of over-expanding. We are attracting too many people here. This can lead to too fast a pace."

> "Our involvement with regional programs--SEARCA*--is being done much too soon. We should be solving local problems. We are spreading ourselves too thinly; too much committee work, etc."

Quite related to this point of over-expansion is the increasing involvement of faculty members, especially the dean, in national programs. The dean served as undersecretary for agriculture in the nation's cabinet.** A respondent criticized the dean's status thus:

> "The dean, as occupant of several offices, does not have enough time for the College. It might not reduce his efficiency, but certainly the time allotted to the College is reduced."

Another point that disturbed certain faculty members was the apparent indebtedness of the Philippine Government to the World Bank which gave an unprecedented loan of $6-million to finance the building program of the College with matching funds from the Philippine Government. The objection ran this way:

> "I disapprove of the borrowing of money from the World Bank, because the Philippine Government is already deep in debt. It's going to be very difficult to pay back such loans."

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*Southeast Asian Regional Center for Graduate Study and Research in Agriculture. The College became this center in 1967.

**A few months after this survey was undertaken, the dean was relieved of this undersecretaryship by the President of the Republic, because it was one of the demands of a campus demonstration.

The respondent, however, did not propose an alternative for financing the project.

A basis for disapproval that probably belongs to a later discussion deals with faculty-administration relations as perceived by one respondent who said: "There is status competition among staff members. The dialogue between central administration and the faculty is not too good."

### Summary of Bases for Negative Reactions

Responses expressing disapproval of physical development were classified into: extravagance, inconvenience, priority conflict, and frustrated expectation. Objections about the program development projects were directed at the procedure followed in bringing about curriculum change. Staff development projects were criticized for subjectivity in the allocation of resources and the insufficient implementation of salary adjustment. Other negative reactions were addressed to the means of obtaining funds and the notion of over-expanding due to limited resources.

## Responses to Scaled Items

### Change Orientation

Three statements adopted from Lin, et al.'s study were intended to measure faculty orientation to change. However, as pointed out earlier, the intercorrelation coefficients were not significant enough to allow treating the

three statements as one variable. Hence, analysis was done singly on the three statements.

Table 9 shows that an overwhelming majority described themselves as able to adjust easily to changes, either always or usually (totalling 92.3%). An exactly similar proportion (92.3%) manifested a tendency to disagree with the statement that no change should be undertaken (Item No. 2). A slightly smaller proportion (86%) tended to disagree with the statement that the faculty could have done just as well if things had not changed so much in the college.

Table 9. Distribution of responses to the first three scaled items.

| Questionnaire item | Extent of Agreement | | | |
|---|---|---|---|---|
| | Always | Usually | Sometimes | Never |
| 1. When confronted with changes, I feel that I can easily adjust | 13 (16.7%) | 59 (75.6%) | 6 (7.7%) | 0 (0%) |
| 2. To maintain a healthy and stable educational system, we must keep it the way it is and not undertake change. | 2 (2.6%) | 4 (5.1%) | 17 (21.8%) | 55 (70.5%) |
| 3. The faculty could have done just as well if things hadn't changed so much in this college. | 0 (0%) | 9 (11.5%) | 34 (43.6%) | 33 (42.3%) |

On the basis of these three statements and the faculty reactions to them, one is tempted to conclude that faculty members do welcome change. In fact, they seem to place much value on change. The manner of bringing change about, however, is entirely another matter, as succeeding discussions will show.

## Perceived Level of Faculty Participation in Decision Making

More than half of the respondents said they agreed only sometimes with the statement that the faculty of the college exerts a strong influence on the administration in decision making. About one-fifth of them indicated that the statement was never agreeable to them, and another fifth said they would agree always with the statement. The preponderance of responses towards the side of disagreement points to a confirmation of a respondent's statement previously alluded to that "the dialogue between central administration and the faculty is not too good."

Almost seven out of 10 respondents (67.5%) said they would never agree or would only agree sometimes with the statement that faculty members are consulted first before the administration makes any decisions that affect them. There is an overwhelming disagreement with this statement. Only one-third (32.5%) testified in agreement that there was faculty-administration consultation.

Do college committees constitute an effective means for involving the faculty in meaningful participation in decision making? Responses to this statement were largely in the affirmative. About two-thirds (65.4%) attested to the value of college committees, if those who would agree always (12.8%) and those who would agree usually (52.6%) were totalled. About one-third said they would agree only sometimes or never.

Table 10. Perceived level of faculty participation in decision making.

| Questionnaire Item | Extent of Agreement | | | |
|---|---|---|---|---|
| | Always | Usually | Sometimes | Never |
| 4. The faculty of this college exerts a strong influence on the administration in the decision making process. | 3 (3.9%) | 15 (19.2%) | 45 (57.7%) | 15 (19.2%) |
| 5. Faculty members are consulted first before the administration makes any decisions that affect them. | 3 (3.9%) | 22 (28.6%) | 46 (59.7%) | 6 (7.8%) |
| 6. College committees constitute an effective means for involving the faculty in meaningful participation in decision making. | 10 (12.8%) | 41 (52.6%) | 25 (32.1%) | 2 (2.5%) |
| 7. Faculty viewpoints are adequately represented by those who serve in college committees. | 2 (2.6%) | 32 (41.0%) | 35 (44.9%) | 9 (11.5%) |

Are faculty viewpoints adequately represented by those who serve in college committees? Responses that could be taken as positive (43.6%) were less than responses that could be classified as negative (56.4%), implying that the selection of those who serve in committees is dysfunctional. To summarize, the faculty respondents saw a low level of faculty participation in decision making but place trust in committees as the vehicle for meaningful participation.

## Perceived Legitimacy of Faculty Participation in Decision Making

Granted that faculty members perceived a low level of faculty participation in decision making, how extensive would they want the participation to be? The statements employed here were adopted and modified from those used in Lin, et al.'s study. (See Table 11).

The first statement, "Faculty members should be asked to take part in decision-making discussions regarding college matters," received support from a large majority. Only five per cent said they would agree only sometimes. Nobody signified complete disagreement.

Similarly, almost three-fourths (73.1%) would like to see the college administration consult faculty members before going ahead with what it thinks will benefit the college. The rest (26.9%) did not find the consultation imperative.

Table 11. Perceived legitimacy of faculty participation in decision making.

| Questionnaire Item | Extent of Agreement Always | Usually | Sometimes | Never |
|---|---|---|---|---|
| 8. Faculty members should be asked to take part in decision making discussions regarding college matters. | 53 (68.0%) | 21 (26.9%) | 4 (5.1%) | 0 (0%) |
| 9. If the administration of this college wants to get things done, it should only go ahead with what it thinks will benefit the college after consulting faculty members. | 28 (35.9%) | 29 (37.2%) | 14 (17.9%) | 7 (9.0%) |
| 10. Faculty members should first be asked before the administration makes any decisions that affect them. | 45 (57.7%) | 25 (32.1%) | 8 (10.2%) | 0 (0%) |

Nobody disagreed with the proposition that "Faculty members should first be asked before the administration makes any decisions that affect them." About one-tenth said they would agree only sometimes. All the others said they would agree "always" (57.7%) or "usually" (32.1%).

To summarize the perceived legitimacy of faculty participation, the respondents strongly urged that the faculty should be asked to participate in decision making. Only a minority showed some reservation regarding this matter.

## Suggestions on the Five-Year Program

In the interview, the respondents were asked to make suggestions on the nature of the program and also about the procedure followed in decision making.

### Regarding the Nature of the Program

The question that elicited the responses to be discussed in this section was: "If the college were to undertake a development program over again, what suggestions would you make regarding the kind of projects that should be undertaken?" The responses were grouped into three categories: concern about human resource development, concern about physical development, and concern for program development. Nine respondents were excluded for not making any suggestions or for making irrelevant ones.

Analysis of the suggestions seems to confirm the findings discussed earlier on objects of approval and of disapproval. Some suggestions also reinforce the choice of projects in the development program, such as the upgrading of faculty, salary increases, and greater recognition for commendable work. These, obviously, fall under the first category, the concern for human resource development. Below is a sampling of such responses:

> "I suggest that reexamination of the staff be made by proper authorities. Develop personnel; if personnel running the labs are of poor quality, it will just be a waste of expense."

> "The presence of better teachers will depend on how much they are getting. Higher salaries will keep the better-prepared teachers here otherwise they will seek employment outside."
>
> "I suggest more motivation for the faculty members--make them feel that they are working for something. Right now the relationships are very personalistic. They should in fact revamp the whole administration. And it should give more support for researchers not because of personalities but because of the topic. Give credit where credit is due."

Several respondents moved for the continuance of the staff development program, but added that selection of faculty fellows or scholars should be less biased:

> "Staff development should be continued. Set up a body of unbiased people who interview and select scholars from out of the staff so that there is less politicking. A system of priorities based on qualifications should be the basis for such scholarships."

A significant suggestion also involved the "use" made of these scholars when they return to the College with their newly-earned degrees. "Ph.D.'s should be involved in teaching, research and extension, and not be assigned administrative work for which they were not trained."

Concern about physical resources. The inadequacy of facilities for teaching and research was deplored again, leading to the suggestion that these be improved. Housing for faculty, graduate students and international students was also suggested. However, a few of the respondents adopted a "wait-and-see" attitude, saying: "I can't think

of anything to suggest because as of now they haven't really finished the Five-Year Development Program." Still others saw the need for a library building and for more laboratory facilities:

> "The building of a library is a very important component for the project and should be given priority."
>
> "We need to furnish laboratory facilities for graduate and undergraduate students. We might have beautiful buildings but no facilities."

The last statement above denotes a certain priority conflict, as does the statement below:

> "Facilities for research and instruction should receive priority rather than buildings."

Concern for program development. The suggestions in this category were grouped into curriculum, research, and extension. It was interesting to note that suggestions regarding the curriculum indicated the need for articulating it with national goals, such as these comments:

> "Curriculum should include and equally emphasize technical skill that should cater to our development as a country. We should not limit ourselves to theory."
>
> "First of all there should be a restudy of philosophy and objectives that should relate to the university objectives and national goals. I feel that there is a lack of knowledge of the common goals we all should have."
>
> "We better be specific about the functions of the college by relating functions to national programs."

Another respondent suggested that the curriculum should be "based on a thorough survey of the demand outside and on a projection of what will happen." Above all, it was suggested that curriculum development "should take more prior study."

Regarding the research program, suggestions were many, and covered diverse points as the need for basic or applied research, avoidance of duplication in projects, reducing red tape in obtaining financial support, and adapting research facilities to the specific problems of the country. A specific suggestion ran thus:

> "It will be better to have a Central Research Institute like the International Rice Research Institute that will look at the welfare of agricultural science, its problems and solutions. This would result in better coordination of research projects, and avoid duplication of projects occurring at present."

The question of proper or legitimate philosophy of extension for the College has existed for several years. Two respondents commented on this:

> "The College should work with agencies and not deal with farmers. It is just a waste of time."

> "We should have programs to help newly-established agricultural colleges. We should put more emphasis on extension."

Regarding the Decision-Making Process

The question was posed: "If the College were to undertake a development program over again, what suggestions would you make with regard to the procedure of planning and

deciding on specific projects?" Content analysis of the responses resulted in three groups of suggestions: those that suggested improving faculty participation (55.1%), those that called for close study of needs and problems (10.3%), and miscellaneous suggestions (12.8%). That the decision-making process needed no improvement was attested to by one out of 10 respondents (11.5%). About the same fraction did not answer the question sufficiently to merit any inclusion among the suggestions.

The respondents who fell into the first category mentioned above included those who suggested increased faculty involvement by consultation and information dissemination, as well as those who called for improvement in the number, composition, and use of committees. Also included in this category were those who proposed that the development program be evolved from the departmental level upwards. Below are some responses selected to illustrate this first category:

> "They should give the job of initial planning, that is, of buildings, to the department concerned."
>
> "Decision making should start with individual departments as to what they need. But priorities should be considered and development should proceed keeping in view the welfare of the whole college and not of individual departments."
>
> "Firstly, there should be proper consultation with the faculty. If a policy emanated from a standing committee, it should be presented to the staff members for criticism and suggestions."

> "The faculty of the different departments should be involved much more. They should sit down together and lay down plans guided by the objectives of the College."
>
> "Communication between faculty and administration is very poor. Improvement can be made on this aspect."

The second category consisted of responses calling for closer study of needs and problems. A thorough study of the needs of the different constituents of the College was suggested. Below are some statements to this effect:

> "The first thing to do is to find out whether there is really a need for a development program, then to determine what aspects such a program should have. This survey should be done among the faculty, students and responsible citizens in the country."
>
> "The only way to know needs is to make a survey first. In some programs, we involve the entire technical staff. Better still, get an advisory committee composed of technical advisers from all departments which should also have a technical staff."
>
> "Before we go into anything new, we should assess the needs of the moment--the weak points. As a public university, we should look into national needs. Everything that should be undertaken should be need-oriented. Even in the identification of needs, there should be total involvement. From bottom to top, there should be crystallization, internal communication through group discussions. There should be constant interaction. By involvement, we should get more ideas and commitment and support would be more widespread."

It can be seen from the above statements that although the respondents would like an opinion survey and a thorough study of needs, they would also place importance on communication and constant interaction for maximum involvement of the faculty in the decision-making process.

Six respondents suggested that students should be involved in the program planning, but they were not quite one in saying how the students can be involved or brought into the decision-making process. Their only point of agreement is that closer consideration of the students in planning future development programs should be made. Their responses are as follows:

> "Students should have more participation. They should help in the planning out of projects most beneficial to them. Progress should be adjusted according to their suggestions."
>
> "Students should be taken into consideration but not necessarily direct involvement. Students' evaluation of faculty would be a good guideline in the planning of the faculty development program. Students can direct their suggestions to the faculty."

The other responses that were classified into the "miscellaneous" group were concerned about (a) stable financing for the program, (b) strengthening of the faculty association, (c) getting ideas from alumni, and (d) defining college functions, all of which had been covered in earlier discussions.

# CHAPTER V: SUMMARY AND DISCUSSION

## Summary of Findings

Generally, the faculty respondents gave favorable reactions to the various projects under the Five-Year Development Program. They recognized the potential benefits accruing from the Program to the instructional and research objectives of the College. Their objections were lodged in the procedure followed in arriving at decisions, particularly the low level of faculty involvement in the decision-making process, and the lack of adequate dissemination of information about the Program.

The above is a capsule summary of the survey results. A more specific resume follows. The development projects were approved of on the basis of their being functional to the attainment of institutional goals. Statements of disapproval of physical development were classified into: extravagance, inconvenience, priority conflict, and frustrated expectation. Objections about the program development were directed at the procedure followed in bringing about curriculum change. Staff development projects were criticized for subjectivity in the allocation of resources and the insufficient implementation of the salary schedule. Other negative reactions were addressed to the means of obtaining

funds and the notion of over-expanding with limited resources.

A large majority of the respondents felt that they could easily adjust to changes, that changes should be undertaken, and that the faculty could not have done as well if things had not changed in the college. A majority also perceived a low level of faculty participation in decision making. While more than half liked the idea of using college committees as a means for faculty participation in decision making, about the same proportion did not think that faculty viewpoints are adequately represented by those who serve on college committees. Faculty participation in decision making was seen as legitimate by an overwhelming proportion of the respondents.

If the College were to undertake the development program over again, the respondents suggested: (a) the continuation of physical improvement; (b) the maintenance of staff development, underscoring the need for less subjectivity in the awarding of study grants and other faculty incentives; (c) articulation between the curriculum and national goals; (d) improvement of research program; and (e) concentrated efforts in extension. On the matter of decision-making procedure, more than half of the respondents suggested improving faculty participation by consultation and greater information dissemination, as well as improvement

in the number, composition and use of committees. It was also suggested that the development program be evolved from the departmental level. The rest called for closer study of needs, problems, and objectives.

## Discussion of Findings

The first objective of this study was to identify the sources of acceptance and rejection of institutional development projects and processes. Evidence was found supporting the framework adopted: that attitudes of both acceptance and rejection reside in one individual and to focus on one and ignore the other would be erroneous. True it is that the ultimate objective is to minimize the negative attitudes toward an innovation, but it is equally true that an implicit objective is to maximize the positive attitudes. Knowledge of the sources of positive attitudes or acceptance would facilitate the pursuit of such objectives.

Analysis of the negative attitudes revealed that rejection or resistance was directed chiefly at the procedure followed in instituting the development program. Limited participation in decision making was bewailed; lack of information about the program was deplored; subjectivity in the selection of beneficiaries of staff development was criticized; and the expediency by which curriculum change was undertaken was censured.

This finding should assure the administration that what it set out to do was appreciated by the faculty. The choice of projects themselves did not receive any significant criticism; in fact, they were approved of, considered functional and necessary for goal achievement. Rather, the faculty generally rejected the inadequacy of involvement of participants in the change process.

That resistance would be less if the participants feel that the project is their own was earlier propounded by Watson.[1] The data here presented seems to indicate that the faculty respondents did not agree with the procedure followed in undertaking the development program, and therefore they suggested wider participation of the faculty, through departmental or committee channels. When change is imposed from above, it tends to be resisted especially in an egalitarian society, according to Willower.[2] The college under study is probably growing into this kind of social organization, since there is an increasing proportion of Ph.D.'s in its ranks. Could it be that the "upgrading" of the faculty in terms of academic degrees is giving rise to a desire for a "collegial style" of campus governance?

The apparent enthusiasm of the faculty for participation in decision making in this study conflicts with the findings of Hunter.[3] She found that the faculty did not

want to participate in educational policy making and that the faculty committee system was seen as an ineffective device for involving the faculty in meaningful participation in decision making. The data in the present study shows that most of the faculty wanted to participate in discussing college matters, and considered the committees as effective channels for participation. Respondents in this study, however, were divided on whether faculty viewpoints were adequately represented in college committees. The data indicate that a majority of them had something to say against the representation in college committees. In Hunter's study, it was also found that the faculties of the two liberal arts colleges felt that they had no real authority in college government. A similar tone was manifested by the faculty in the present study. This finding is significant in view of the fact that the college under investigation is situated in a socio-cultural system where authoritarian or highly centralized forms of government have been the norm in most organizational set-ups.

Certain propositions advanced by researchers of innovation have found support in the data of this study. For example, Lippitt, et al.[4] stated that resistance to change may occur when the proposed change promises benefits to one part of the organization at the expense of other parts. In the present study, when staff members of a

certain department expressed dissatisfaction over the fact that they did not have a new building, their source of resistance would be explained by the above proposition.

Lack of information as a source of resistance was suggested by Willower too. Certain respondents could not demonstrate convincing knowledge about the development program. They cut short their responses and registered an air of indifference, which to Willower is a safe form of resistance.

The second objective of this study, to investigate the relationship between faculty attitudes and their characteristics indicated that on the whole the faculty of the College comprised a homogeneous group in terms of their attitudes toward the development program and their perceptions of faculty involvement in college governance. Reference to this is made in the Limitation of the Study.

The third objective was to develop a conceptual scheme for dealing with faculty reactions to institutional change. Two important elements have been identified in the process of undertaking institutional change: the program of change and its components, and the communication process. The program of change can be considered as the innovation, although multifaceted in character and less discrete than most technological innovations that have been studied. Nevertheless, the program and its composite

projects may be taken as the attitude object or objects, initially distinctive and then aggregative, depending on the tested homogeneity of the components.

In previous studies of innovation adoption, little attention has been paid to the manner of introducing and implementing change, as can be observed in the literature reviewed in Chapter II. Studies have tended to focus on the innovation itself when in fact the difficulty in securing greater acceptance may lie in the methods employed in initiating and effecting the change process. Bennis acknowledged the lack of information about the process of "implementation," which he defined as "the creation in a client-system of understanding of, and commitment to, a particular change which can solve problems, and devices whereby it can become integral to the client-system's operations."[5] Only theoretical or non-empirical statements are available, such as Bennis' untested predictions.

Two of Bennis' predictions found support in this study. One is that "an anticipated change will be resisted to the degree that the client-system possesses little or incorrect knowledge about the change, and has relatively low influence in controlling the nature and direction of the change."[6] The other is that "the degree to which collaboration is required is probably related to the type of change anticipated: the more it involves socio-psychological

factors--as opposed to technical--the more collaboration is required."[7] Hence, a relatively greater degree of resistance by the faculty studied here was observed in the reactions to the less technical projects as staff and program development, compared to the physical development projects.

Limitations of the Study

As an exploratory study of the reactions of faculty towards an institutional development program in a non-Western setting, the concepts and techniques employed here are used on a trial basis and have not been validated.

No attempt was made to establish varying degrees of resistance to or acceptance of institutional change. Closer familiarity with the research variables is necessary before measurement can proceed from the descriptive to the correlational.

The possibility of errors in transcribing the oral replies of faculty respondents are recognized. A more accurate recording procedure should have been employed if financial and other resources permitted.

Perhaps the low and the insignificant chi-square values can be explained by the nature of the sample or by a homogeneity of responses of individuals to phrases somewhat foreign to their own patterns of thought.

If a more comprehensive study were to be undertaken, added factors not crucial to this study should be included: for instance, sources of information about the development program, the channels of communication available to or used by faculty members, and faculty peer groups, both formal and informal, subsumed by Rogers, et al.[8] under social-structural factors.

Implications for Academic Administration

The findings in this study underscore the importance of communication in the process of instituting a development program. As Gardner said, "effective channels of internal communication can prevent the erection of impenetrable walls between parts of the organization and by doing so may do much to diminish the number of narrow, over-specialized employees. All of this serves the cause of renewal."[9] A major factor in the change process seems to be uncertainty: the feeling that leads people to ask about an innovation--what is it all about, what is in it for me, what will happen if I accept or reject it? Administrators have to satisfy the cognitive as well as the affective motives of the innovation receivers.[10]

What if the rate of change is impeded by maximum participation in decision making? Gardner warned against superfluous communication which tends to inhibit creativity and flexibility

> by excessive demands for coordination, administrative review and endorsement from collateral branches of the organization. Experimental ventures may quickly lose all freshness and imagination if subjected to the withering heat of criticism from more conventional parts of the organization.[11]

In striking the balance between no communication and superfluous communication, perhaps we should err on the side of superfluity, in the belief that the necessity for change would spur it on and bring about action. The assumption is also made that the individual is most receptive to change when he has some influence over its nature and direction. If a democratic society is to be aimed at in campus governance, it should be "based on extensive discussion, accurate feedbacks, a network of mutual information channels, and an absence of coercion."[12] Thus did Boulding describe his ideal image of democracy. Bennis also argued in favor of democratic government because it is usually this type of organization that is most adaptable to changing conditions.[13]

The structuring of the channels of communication may also be modified to offset the tendency to inaction. Rourke and Brooks[14] suggested that the choice is between a system of representative government where cumbersome large faculty

gatherings are replaced by the establishment of committees to represent faculty opinion, and acceptance by faculty members of a larger management role for academic administrators. Faculty representation is preferred because on "academic matters faculty advice is essential to the development of rational university policy."[15]

Implications for Further Research

The contribution that this study makes to research on innovation in higher education is that it has furnished empirical evidence on the acceptance-and-rejection complex as a twofold phenomenon. However, much remains to be done in order that the process of institution-building would be more fully understood. This and previous studies have hardly scratched the surface. The classification of reactions to institutional development is but a first step toward the formulation of generalizations regarding them.

One possible avenue for future research is the analysis of attrition before, during, and after the development program is instituted. The cognitive dissonance theory might be tested using faculty members who have terminated their employment with an institution that is now undergoing change. Or one may pursue the question: Is faculty mobility influenced more by a total change program than by "trouble-shooting" or spot reforms at points of dissatisfaction?

Another area of concern is the rate of change: At what rate can change be tolerated, and what personality characteristics tend to be related to varying levels of tolerance? If funds are available, an institutional development program can proceed at a feverish pace. Is this within the limits of tolerance of conservative faculty members? March and Simon stated certain postulates concerning "optimum stress" in the face of change,[16] but empirical evidence is still wanting.

The development program under study involved the infusion of money into the system. Has this brought about fundamental changes in the teaching-learning activity in the college? Having financial resources at his command, how effective can an academic leader be in persuading the faculty to make some basic changes in the content and methods of instruction? Would the faculty be more prone to approve of or accept changes that are associated with economic incentives but resist those that involve changes in their teaching practices or may be linked only remotely to financial rewards?

No study seems to have been published that deals with teachers of different levels, e.g., elementary, secondary, undergraduate, graduate faculties, comparing them on their receptiveness or resistance to innovation. The studies reviewed, for example, have focused on one educational stratum each.

It was a major observation in this study that the agriculture faculty tended to agree more than disagree about various aspects of the development program. Whether this homogeneity prevails in similar institutions or in other professional colleges as well would be worth investigating.

The identification of phases of the development process paralleling that of the adoption process with regard to a technological innovation is another worthwhile endeavor. It would be interesting to find out the activities and attitudes during the different stages.

The impact of development on all members of the academic community also needs study. How do these periods of transition affect the student in his learning environment? The non-academic staff and the administrators themselves presumably experience satisfaction and dissatisfaction before and after the projected goals are achieved, and their reactions could be entirely different from those of the academician.

The College of Agriculture of the University of the Philippines belongs to that class of developing institutions in developing countries. The paucity of information about how academic organizations undergo change, and about the concomitant effects of institution-building especially in the less developed countries of the world ought to attract

students in the social sciences to this area of study. In view of the divergent cultural norms prevailing, there is a special need to research concepts and variables in a non-Western setting.

## Footnotes

### Chapter I

1. Paul L. Dressel, College and University Curriculum. Berkeley, Calif.: McCutchan Publishing, 1968, pp. 1-12.

2. Francis E. Rourke and Glenn E. Brooks, The Managerial Revolution in Higher Education. Baltimore: The Johns Hopkins Press, 1966. p. 101.

3. Alvaro Chaparro and Ralph H. Allee, "Higher Education and Social Change in Latin America," Rural Sociology 25:1 (March, 1960), pp. 9-25. Erven J. Long, "Institutional Factors Limiting Progress in the Less Developed Countries," in Albert H. Moseman (ed.) Agricultural Sciences for the Developing Nations, 1964. Washington, D. C.: Amer. Assn. for the Adv. of Sci., p. 13.

4. F. F. Hill, "Developing Agricultural Institutions in Underdeveloped Countries," in Albert H. Moseman (ed.), Ibid., pp. 141-61.

5. Hill, ibid. Also Howard Hayden, Higher Education and Development in South-East Asia. Vol. 2: Country Profiles. Paris: Unesco and the International Assn. of Universities, 1967. p. 615.

6. H. W. Hannah, Resource Book for Rural Universities in Developing Countries. Urbana: University of Illinois Press, 1966.

7. Building Institutions to Serve Agriculture. Summary Report, Agency for International Development and Committee for Inter-Institutional Cooperation, 1968. p. 42.

8. In Terry F. Lunsford (ed.), Study of Academic Administration. Boulder, Colorado: Western Interestate Commission for Higher Education, 1963. pp. 113-31.

9. Gerhard C. Eichholz, "Why Do Teachers Reject Change?", Theory Into Practice. 2:5 (Dec., 1963), pp. 264-68.

10. Chris Argyris, Understanding Organizational Behavior. Homewood, Ill.: Dorsey Press, 1960. p. 27.

11. Ibid., p. 117. This agrees with the framework of Putney, Snell and Gladys J. Putney, "Radical Innovation and Prestige," American Sociological Review. 27:4 (Aug., 1962) pp. 548-51).

12. See for instance: John J. Corson, Governance of Colleges and Universities. New York: McGraw-Hill, 1960. pp. 174-75; Beardsley Ruml and Donald H. Morrison, Memo to a College Trustee: A Report on Financial and Structural Problems of the Liberal Arts College. New York: McGraw-Hill, 1959; Samuel Baskins, "Vibrations in the Ivory Towers," American Education 4:3 (March, 1968), pp. 12-13; Herbert Stroup, Bureaucracy in Higher Education. New York: The Free Press, 1966, p. 212.

13. Everett M. Rogers, Diffusion of Innovations. New York: The Free Press of Glencoe, 1962; Matthew B. Miles (ed.) Innovation in Education. New York: Teachers College Press, Columbia University, 1964; Donald H. Ross (ed.), Administration for Adaptability. New York: Metropolitan School Study Council, 1958; Goodwin Watson (ed.), Concepts for Social Change. Washington, D. C.: National Training Laboratories, National Education Association, 1967.

14. Eichholz, op. cit.

## Chapter II

1. Samuel Baskin, op. cit.

2. Richard Evans, et al. The University Faculty and Educational Television: Hostility, Resistance and Change. A Social Psychological Investigation in Depth. Houston: University of Houston, 1962. p. 97. By the same author: Resistance to Innovation in Higher Education: A Social Psychological Exploration Focused on Television and the Establishment. San Francisco: Jossey-Bass, 1967. p. 11.

3. Ibid., p. 97.

4. This characteristic was termed as profitability in Rogers, op. cit. In another study by Lin, et al., this element was called beneficiality of innovation.

5. Gerhard C. Eichholz, op. cit.

6. Jerald Thore Hage, "Organizational Response to Innovation: A Case Study of Community Hospital," Ph.D. Thesis, Columbia University, 1963.

7. Nicholas J. Demerath, et al. Power, Presidents, and Professors. New York: Basic Books, 1967.

8. Nan Lin, et al. The Diffusion of an Innovation in Three Michigan High Schools: Institution-Building Through Change. East Lansing, Michigan State University, 1966.

9. Everett M. Rogers, et al. Diffusion of Educational Innovations in the Government Secondary Schools of Thailand. Michigan State University, 1968.

Chapter V

1. Goodwin Watson, op. cit., pp. 22-23.

2. Donald J. Willower, "Barriers to Change in Educational Organizations," Theory Into Practice. 2:5 (Dec., 1963), pp. 257-63.

3. Pauline Faye Hunter, "An Exploratory Case Study of the Formal Role of Faculty in Educational Policy Making." Ph.D. Thesis, University of California, Berkeley, 1963.

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5. Warren G. Bennis, Changing Organizations. New York: McGraw-Hill Book Co., 1966. p. 175.

6. Ibid., p. 175.

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8. Everett M. Rogers, et al., op. cit.

9. John W. Gardner, Self-Renewal. New York: Harper & Row, 1965. p. 77.

10. Bennis also said that "information and understanding are necessary but not sufficient components for inducing change. More is required if the change is to affect important human responses"; and that "thinking solely about the individual understanding of the change and its consequences is not enough"; and finally, "the change program must include emotional and value as well as cognitive (informational) elements for successful implementation." op. cit. pp. 175-76.

11. Gardner, op. cit., pp. 77-78.

12. Kenneth E. Boulding, The Image. Ann Arbor: The University of Michigan Press, 1956.

13. Bennis, op. cit., pp. 18-21.

14. Rourke and Brooks, op. cit., pp. 27-29.

15. Ibid., p. 129.

16. James G. March and Herbert A. Simon, Organizations. New York: John Wiley & Sons, 1958.

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