

FACULTY AGREEMENT WITH CENTRAL LUZON STATE
UNIVERSITY INSTITUTIONAL GOALS

By

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July 1986

DEDICATION

To my parents without their eternal encouragement the project
could never have been undertaken, and then completed:

Honesimo

and

Ruperta

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CHAPTER I

INTRODUCTION

The present study is an investigation into (1) the agreement of the faculty of the Central Luzon State University toward research (both concept and practice) and (2) the relationship of this agreement to the faculty's roles, values, and interests. Specifically, the information sought has been (1) the basic functions of research and the major university goals that faculty believe most important for CLSU to pursue; (2) the academic responsibilities and interests most important to the faculty including the sources of recognition and stimulation they value most; and (3) the faculty attitudes toward research.

The Problem

General observation and a review of the literature leads the investigator to the conclusion that instructors and administrators may have decided and somewhat varied views about (1) priorities, (2) methods, and (3) effectiveness of research; yet, at Central Luzon State University very little formal inquiry has been made as to instructors' and administrators' views regarding selected aspects of research.

Specifically, the problem is a lack of knowledge in the differences of faculty agreement toward the basic functions of research and other selected university goals, and the possible relationships of these goals and functions with the faculty roles, values and interests.

Need for the Study

The Central Luzon State University has very limited resources for research and development. The different units and departments of the university compete for the available fiscal and physical resources. Hence, the need to maximize the use of these scarce resources has become quite critical.

In Central Luzon State University, feedback from instructors and administrators regarding the impact of research is still untapped source of information needed by planners and policy makers. It can not be denied that feedback from the users of any product is essential for its improvement.

This study, which has found the extent of agreement of the faculty members and administrators at Central Luzon State University towards the functions of research, and the factors associated with such agreement, should provide a valuable source of information for policy makers, planners, and researchers.

Purpose of the Study

The primary purposes of this study is to determine the (1) agreement of the faculty of the Central Luzon State University toward research (both concept and practice), and (2) relationship of this agreement to the faculty's roles, values, and interests. Specifically, the information sought has been (1) the basic functions of research and the major university goals that faculty believe most important for CLSU to pursue; (2) the academic responsibilities and interests most important to the faculty including the sources of recognition and stimulation they value most; and (3) the faculty attitudes toward research.

Background Literature

For the purpose of this analysis, the modern university is presumed to be not predominantly a bureaucracy (Stroup, 1966), in that its power structure is not hierarchical; nor is it presumed to be homogeneous, collegial entity, such as Millet (1962) describes. Gross and Grambsch (1968, 1974) and Blau (1973) suggest that the university is a complex organization and even, as Baldrige (1971) sees it, a politicized institution, that is, one of considerable heterogeneity of interests and commitments, which are sometime in conflict. The work of Ladd and Lipsett (1975) and the writings of Kerr (1964) affirm this essential variety in the American university. In such diversity, the place of research is presumed to be variously perceived by faculty.

In general, it is assumed that essential academic authority lies with the faculty, that any potential for the heightened priority of research ultimately depends upon the degree to which faculty perceive both idea and practice favorably (and find both appropriate to a university) and upon the likelihood that the value of research teaching in their professional academic lives can be increased.

The hypotheses of this research rest on elemental role theory (Katz and Kahn, 1966; Homans, 1961) applied to the faculty as members of professional reference groups (Blau, 1973); Parsons and Talcott, 1973; Ladd and Lipset, 1975) to explain reasons for faculty attitudes toward research.

Design of Study

The survey instrument, though devised by the researcher, borrows from Gross and Grambsch's Changes in University Organization, 1964-71

(1974), from Ladd and Lipset's The Divided Academy (1975), Eckert and Williams' College Faculty View Themselves and Their Jobs (1972) and from Porter's Faculty Perceptions of Continuing Education (1970).

The instrument was revised several times after a series of evaluations by statisticians and researchers and a trial run of the investigation with 20 graduate students of the Oklahoma State University. Final revision of the instrument, as well as the conceptualization of the total project, was aided immeasurably by lengthy interviews with 10 prominent faculty members (in colleges of Education and Agriculture, O.S.U.) known to hold divergent viewpoints of research.

The instrument is designed to ascertain what research functions and university goals faculty believe the Central Luzon State University ought to pursue, what roles faculty deem personally important, what attitudes toward research they hold, and what agreement and relationships there are among those four kinds of information. In addition, relationships of research functions and university goals to faculty rank, discipline, teaching experience, level of present students, sex, goals, roles, and attitudes were also considered.

About fifty percent of the faculty (N = 290) now serving with a rank of instructor or above in the 10 collegiate units of Central Luzon State University (hereinafter is referred to as the CLSU) were selected at random from separate collegiate rosters verified by the university payroll department.

The 10 collegiate units are:

1. College of Agriculture
2. College of Arts and Sciences
3. College of Business Administration

4. College of Education
5. College of Engineering
6. College of Home Science and Industry
7. College of Inland Fisheries
8. College of Veterinary Science and Medicine
9. Research and Development Center
10. Office of Student Services

In addition to the 50 percent sample of these faculties, all department chairpersons in each of these collegiate units were included in the study. The deans of the eight colleges and the directors of the Research and Development Center, and the Office of the Student Services were not included. A stratified random sample represents as accurately as possible each department within each collegiate unit, both in proportion of numbers and in the numbers of faculty at each rank.

Standard correlational techniques, analysis of variance, and factor analysis were used to derive composite scores that are the subject of analysis. Univariate and multivariate factorial analyses of college by rank and by sex were used to identify subgroup differences. Multiple correlations were used to characterize relationships among goal, research function, role and attitude variables.

Limitation of the Study

There are several limitations to the present investigation. A primary limitation is that the study is based upon the assumption of the reliability of attitudes. However, attitudes may be unstable. It may change from time to time. Furthermore, attitudes do not necessarily accurately measure behavior. Another limitation of the study is that

it only examines the attitudes and values of about 50 percent of the total faculty. Although the sampling was carefully undertaken, there are always the risks in applying the findings to the whole population represented by the samples.

The study and the findings also are subject to the usual distortions that may be caused by an incomplete response rate. Nine percent of the faculty sampled did not return their questionnaires. One is inclined to think that non-respondents may be more indifferent to research than were the respondents; if that is so, support for research functions may actually be lower than is indicated by the data. Finally, the sample used for the study was limited to the population of faculty members in the Central Luzon State University which is primarily an agricultural institution, hence the findings of the present study could only be generalized to a similar setting and population.

Definition of Terms

1. Cosmopolitans - are faculty members who, in the fulfillment of their professional lives, place greatest emphasis upon research, publication, and teaching; and receive their most gratifying recognition from fellow scholars outside the university. Also known as research-oriented faculty members.

2. Locals - are faculty members who place greatest emphasis upon teaching and upon improving their teaching skills. They place less emphasis on research and publication, and find students their most gratifying source of recognition. They are also known as teaching-oriented faculty members or traditional faculty members.

CHAPTER II

REVIEW OF THE LITERATURE

The premise of this thesis is that research is the cornerstone in the development of any university, and that it is so because it is always integrated to the professional responsibilities of the faculty, that is, that teaching in and conducting research is innovative professional behavior. Thus, the main purpose of the investigation has been to define and measure the degree of agreement the faculty have in regard to research functions and the real and potential relationship of research to them.

This chapter reviews two bodies of literature. The first describes the following basic assumptions (1) that a gap exists between research and practice; (2) that research and experimentation are legitimate concerns of practitioners; and (3) that research and development work is relevant for change.

The second body of literature deals with faculty role definition and is divided into two parts (1) a brief description of the authority of the faculty in the modern university, and (2) the literature of elementary role theory and of faculty as members of professional groups.

Pertaining to the first assumption--that a gap exists between research and practice--a note by Yates (1971) is of particular interest. He noted that educational research is not meeting the expectations of those responsible for educational policies and practice. He concluded

that if research is to become an effective instrument of educational reform, it must be accepted by all concerned as an integral part of the educational process.

Young (1965), who laid emphasis on bridging research and innovation in education, pointed out that research is not for academics alone, thus he wrote:

...others are needed as well, people whose main jobs lie in teaching or administration, yet with the interest and aptitude to take part in cooperative research, or to initiate their own. Some research may originate from on high; but what comes down from above will descend lower, and sink, unless to back the professionals there are thousands of teachers ready to approach their own work with an inquiring mind... Every teacher who tries out a new idea, then, by various criteria judges its success or failure, has conducted a miniature piece of do-it-yourself research. Let there be more such people, in education offices as well as in schools, more people more sophisticated about the ways they assess the work of themselves and others, and in a generation education could be transformed (pp. 87-88).

Bell(1975) identified teachers as end-users of educational research and development who need to understand why new programs are introduced and how they are to be taught. Bell noted that much of the problem of communicating research and development results could be solved if greater effort were made to include users in the initiation and early stages of conceptualization. He also observed that too often research and development comes from the cloistered environs of college, university, and organization and is imposed on schools.

Lazarsfeld and Sieber (1964), discussing the organization of research, pointed to indifference, resistance, and skepticism of the public school practitioners regarding research findings; thus said they:

Several criticisms of research occur among practitioners; it ignores certain crucial factors in the real life setting; its results are exaggerated by statistical manipulation; its results conflict with those of other studies; it lacks

immediate practical implications...Practitioners are wary, therefore, of new methods which have not been thoroughly tested and adapted to their situation (p. 57).

Gallagher (1965) in a paper submitted to a seminar on Change Processes in Public Schools, dealt with the general problem of getting research data to the practitioner. He reported the criticisms of administrators regarding the research process as follows: (1) the results of research seldom get back to those who are in a position to apply them; and (2) practical problems had not been researched enough. Gallagher also noted the concern of administrators that research in education is becoming sophisticated and although a good thing, the people who have already been through the mill and who are out in the ongoing system will find it increasingly more difficult to understand the findings of research.

DeVault (1965) called attention to the increasing imperative need for teachers who are in a position to interpret research findings. Thus, wrote she:

The cause of theoretical inquiry and the cause of the classroom teacher can both be served if teachers can be counted on to play informed and significant roles in reducing the gap between research and practice (p. 212).

Wayne (1970) perceived the community of school practitioners as being afraid of research findings. He noted that they "can be observed to verbally affirm but physically negate the value of research (p. 245).

Carriker (1972) who did his doctoral dissertation on teachers' attitude towards educational research, focused his study on attitudes as a force capable of blocking communication between researchers and practitioners. Carriker developed an instrument to measure attitude toward research. He found that there was a significant difference in the attitude of teachers and researchers toward research; further, that

on the average teachers in the relevant population studied held a relatively negative attitude toward research. This finding suggested, according to Carriker, that "the attitude of teachers is very likely responsible; at least in part, for the observed lag between research and practice" (p. 555).

Kerlinger (1960) observed the general ignorance among educators about science and scientific research which he pointed out was concomitant with a negative and sometimes anti-intellectual attitude toward science and research.

Another study on teachers' attitude toward educational research was done by Short (1971). Short found that teachers' knowledge of educational research as measured by the Short Knowledge of Educational Research Test made no difference in teachers' attitude toward educational experience, and grade level at which teaching made no difference in teachers' knowledge of educational research, although subject area teaching seemed to make a difference. Data obtained from Short's study likewise indicated that course work in educational research, measurement and statistics, as well as participation in research, and a significant effect on teachers' knowledge of educational research; however, the knowledge gained was not evident after a lapse of five years or more.

Regarding the second assumption--that educational research and experimentation are legitimate concerns of school practitioners--a survey report prepared by Cane and Schroeder (1970) for a project of the National Foundation of Educational Research in England and Wales revealed significant findings. The NFER project inquired about the relationship between educational research and the teacher. It was designed to find out what research teachers regard as relevant to their

work; what value they attach to the results so far achieved in this field; and what kinds of further research would in their view be most valuable. Cane and Schroeder reported that most teachers regarded research as a necessary professional activity, and some went out of their way to stress that they recognized its value, even if they had reservations about how it was done. A frequent comment was that involvement in research helped teachers to reconsider the aims of their work. The survey report concluded that teachers were willing to question their practices and that they looked for positive help from those engaged in research and development.

A group of experts from Asia who met in Katmandu, Nepal on October 2-12, 1977, discussed the role of teachers in educational policy development and implementation (1978). The report on the conference noted the need of teachers to keep themselves aware of the advancement of knowledge in their respective areas and to conduct experimentation and innovation in their teaching in and outside of the classroom.

Anderson (1975) demonstrated the feasibility of individual instructor in classroom research. In his report, Anderson recommended that instructors should engage in personal inquiry into their efforts to influence students' learning. Anderson wrote, "Educational research needs to move to the individual instructors' classroom if rapid progress on theories of instruction is to be made possible" (p. 395).

Haycocks (1975) who wrote on teacher education programs, emphasized the need for teacher involvement in research. Thus, he wrote:

Many teachers should have the opportunity of being involved in research which has a bearing on their work so that they can, as a result of the experience, later on initiate relevant or effective new research on their own at school level (p. 222).

Regarding the third assumption--that educational research and development work is relevant for educational change--insights from a review of educational research and development policy in the United States are relevant. The Office of Education Report for 1970 (1974) stated:

The logic, indeed, seems compelling that the improvement of education ultimately rests on knowledge about learning and instruction, furthermore, is most immediately tied to the invention of improved practice and processes resting squarely on that accumulating knowledge base (p. 858).

The statement recognizes the possibilities growing out of research and development for the improvement of education.

The Asian Institute for Teacher Educators (1972) noted that although the results of the initial efforts in Research and Development were promising, these results did not fulfill expectations of producing change in the schools, partly because these efforts failed to take sufficiently into account all of the critical factors in the system, as for example, the necessity to retain teachers if new curricula were to be successful.

At a national seminar on the subject of Educational Innovation for Development (1976) conducted by the National Research and Development Center for Teacher Education, a prevailing view was expressed that in the adoption of foreign innovations, proper field experimentation and adequate knowledge base of the innovation itself are indispensable considering socioeconomic, political and cultural realities.

Summing up, the reports cited in this section has (1) suggested the value of teacher involvement in research in order to reduce the assumed "gap" between educational research and practice; (2) revealed the growing recognition of the teacher's role in educational research and development; and (3) recognized the promise of educational research

and development for the solution of educational problems. In general, the studies point to the typically negative attitude of teachers toward educational research and development and laid emphasis on the gap which was assumed to exist between educational research and practice. The educators who have written on the topic clearly stress the need for a trend toward research which looked directly upon problems of practice.

The Authority of the Faculty in the Modern University

A brief explanation as to why the faculty is the object of this study: The hypotheses of this research assumes that the university is a complex organization (in a real sense, the multiversity Kerr (1974) describes), that the faculties define their roles somewhat differently, and that the essential authority in the university belongs to the various faculties and not to administration.

Parsons (1968) says that the development of the graduate school led to the professionalization of faculty roles. Research, the cornerstone of this development, is the source of authority, uniformity, and harmony among the disciplines. Thus he wrote:

The predominance of the older type of bureaucratic line authority is no longer characteristic of any but a small set of skill organizations. The pattern of relations between professional peers...had come to be of paramount importance in the modern type of formal organization (p.542).

Ladd and Lipset (1975) in their analysis of political variance within institutions, concluded:

While the central administration retains substantial formal authority, in most institutions, the school or department hires and fires, determine what is taught and how it is presented and is the principle claimant on the distribution of institutional resources (p. 68).

And Blau (1973) says:

...the higher the quality of the faculty and of the institution, the more decentralized does the influence over educational matters tend to be (p. 163).

Thus, though bureaucratic authority (Stroup, 1966 and Blau, 1973) must of course, be taken into account in matters of educational policy change, it is assumed that centralized administration does not control the disciplines, and could not by fiat, for example, increase or decrease faculty commitment toward research.

Thus, this research focuses upon the faculties of the university as the proper place for determining the real levels of acceptance of research, and the likelihood (if any) that acceptance may be increased.

Role Theory

Research is a source of authority, uniformity and harmony among the disciplines, because conducting research is a part of the faculty's regular role.

Burch (1961) says that one must consider a university (department or discipline) a community of scholars. He said:

Those activities which a majority of faculty members agree are important and which the administration enables them to carry on as a part of their regular work, can be readily identified as integral. Those which they regard as of secondary importance and which have to be carried on outside the regular assignment of responsibility are peripheral (p. 28).

The research at hand assumes that the group (the broad discipline division or the academic department to which a faculty member belong) is a strong determinant in the roles that faculty consider most directly to define and fulfill their professional lives. The assumption that research is rewarding because it is integrated to the faculty member's regular duties, stems from elementary role theory (Merton, 1957).

"Role system" is a concept which attempts to explain "socially contrived stable patterns of interrelated behavior" in social organizations. Social groups have a pattern of roles to which members of the group conform; and an ideology which provides norms that prescribe behavior (Katz and Kahn, 1966; Parsons, 1951).

Regarding these norms Katz and Kahn (1966) suggest that:

1. Norms describe a set of objective and explicit beliefs about appropriate behavior for group members as group members,
2. They have the support and agreement of a majority of active group members and,
3. That group members are aware there is group support for a given belief (p. 47).

Homans (1961) says that these norms of the reference group have considerable power over individual member's behavior. Thus, he said:

Persistent departure from group norms usually bring about costly reactions; a decline in the offender's social rank, his association, and his influence (p. 148).

Regarding this power, Katz and Kahn (1966) say:

Many studies in social psychology have demonstrated the power of the norms of the group over the individual (Newcomb, 1943). The rewards and sanctions which the group can use for conformity to its values and for deviance from its norms constitute a major source of compliance. Another is the gratification of affiliative needs through sharing beliefs and attitudes with others. A third and potent source of the strength of a system ideology is that it reflects and justifies the way of the life of the theory (p. 33).

Put in simple role theory terms, then, the investigator's premise is that research is rewarding because teaching in or conducting it is "normative behavior" and the faculty perceive normative value (ideological justification) for it.

The principle of partial inclusion (Katz and Kahn, 1966) allows members of a group legitimately to undertake various activities besides those for which they are hired (e.g., working in extension). But the

"reward" (extra money or even innate satisfaction) is not group reinforcement or recognition, and if such activities are perceived by the group to divert the member from normative group behavior, he will suffer the costs as Homans (1961) describes. Thus, conducting research or research teaching is not only rewarded by group recognition; there may be an incentive for conducting or teaching in it.

The Professional Reference Group

The investigator suggests that the characteristics of professions and the influence of the professional group on its members help explain faculty attitudes toward, and faculty ability to participate in, university research.

Parsons' broad historical view of the development and application of knowledge leaves little doubt that modern academics are professionals. His core criteria of a profession are:

1. The requirement of formal, technical training accompanied by some institutionalized mode of validating both the adequacy of the training and the competence of trained individuals,
2. The training must lead to some order of mastery of a generalized cultural tradition and do so in a manner giving prominence to cognitive rationality as applied to a particular field,
3. Skills in some form of its (cognitive rationality) use must be developed, and
4. The profession must have some institutional means of making sure that such competence will be put to socially responsible uses, including teaching and research in the "pure" intellectual disciplines (Parsons, 1968, p. 536).

If we assume Parsons' criteria to apply to the faculty in the disciplines of a major university, the norms of faculty roles are immediately apparent: (1) the encouraging of research and (2) the communicating of such advances by publication and teaching. As Parsons

(1968) mentioned these are the "means by which the academic profession perpetuates itself" (p. 542). Group norms and criteria for promotion define faculty roles clearly.

In addition to the norms of faculty behavior, the institution as a whole legitimates the role (research and communicating the findings are clearly understood to be the primary goals of major universities), and "social utility" provides the essential "value" to faculty professional activity.

Ladd and Lipset (1975) wrote:

Features of subject matter--the areas of activity it encompasses, the problems and concerns with which its practitioners are involved, its distinctive styles and modes of thought, and the interests and groups outside the university which it defines--together influence the type of person recruited into the field. That is to say, a given discipline, occupied with special problems and having specific kinds of associations and references outside academe, selectively recruits people with consistent interests and values (p. 69).

Thus, faculty roles--the commitment faculty may make of their time and their intellectual energy--are determined by a clear complex of norms and values (Blau, 1973). The professional group enables and expects the academic to fulfill his personal academic interests. It provides him the pleasure of professional recognition and of association with colleagues of similar intellectual bent. It "controls" him with the incentives of promotion, higher status, and monetary rewards, and justifies all in the name of social service.

CHAPTER III

DESIGN OF THE STUDY

The main purpose of this research has been to describe the agreement of the faculty of the Central Luzon State University toward research (both concept and practice) and to reveal the relationship of such agreement to the faculty's roles, values and interests. Specifically, the information sought has been (1) the basic functions of research and the major goals that faculty believe most important for the CLSU to pursue, (2) the academic responsibilities and interests most important to the faculty, including the sources of recognition and stimulation they value most; and (3) the faculty attitudes toward research.

This chapter explains the major hypotheses which the present study seeks to answer, the construction of an instrument to obtain the necessary information, the general population studied, selection of subjects, the method of data collection, and the statistical treatment of survey data collected.

The Major Hypotheses of This Research

Because the hypotheses are so numerous and interwoven, the investigator has chosen, for simplicity of reading, not to use the null hypotheses convention. The major hypotheses of this study are:

1. Faculty of the Central Luzon State University supports the concept of research.

2. Faculty agreement with the basic functions of research (Identifying problems, and providing answers to operational questions confronting the lives of the people) vary significantly with teaching experience, level of present students, marital status, present academic rank, present academic position, discipline or field of expertise, educational degree, and sex.

3. Faculty agreement with the major university goals to be achieved by CLSU varies significantly as a function of teaching experience, present academic rank, and discipline.

4. Faculty agreement with basic functions of research is different with the faculty agreement with major goals to be achieved by the CLSU.

5. The faculty expresses a positive willingness to conduct research courses which include instruction in research methods.

6. The faculty expresses positive willingness to conduct research in the respective disciplines which they teach.

7. The faculty agrees with the work being done at the Research and Development Center.

8. Faculty agreement about the work of the Research and Development Center is different by College.

9. Faculty agreement about the work of the Research and Development Center varies with experience in conducting research, agreement with research functions, agreement with major university goals, and faculty support with work of the Research and Development Center.

10. The faculty supports the Research and Development Center in the Central Luzon State University.

11. Faculty support of the Research and Development Center does not vary by college.

12. Faculty support of the Research and Development Center varies with experience in conducting research, their agreement with research functions, and their agreement with major university goals.

A scale made up of the following items will represent output quality of the Research and Development Center:

1. The quality of output of the Research and Development Center (hereinafter referred to a RDC) is comparable to that of other Research Institutions.

2. The research programs of the RDC is equally recognized with that of other Research Institutions' programs.

A scale made up of the following items will represent the Research and Development Center:

1. The RDC is fulfilling its mission.

2. The RDC should be given additional funds to carry out its mission.

The Survey Instrument

A survey instrument was devised to obtain three kinds of information. It consists of a section tapping the emphasis faculty give to the basic functions of research and to the university goals that must be achieved by the faculty; a section exploring the faculty members roles, values, and various kinds of experience; a section eliciting faculty attitudes toward research and a section showing respondents biographic data. The instrument was reviewed by various researchers and professors and pretested on 20 Oklahoma State University graduate students. Then it was administered to five more graduate students who reported that it took them to complete answering the questionnaire seven to ten minutes.

University Research Functions and
University Goals

On a five-point Likert-type scale, faculty were asked to indicate their agreement to each research function and university goal to be achieved by Central Luzon State University. The range of response is "Strongly agree" to "Strongly disagree."

The essential purpose of the university research functions and university goals section of the instrument was to assess faculty orientations and values; it was not to describe the official purposes of an institution. Items were devised to establish agreement in faculty philosophy regarding the relative importance of such research functions and university goals as research, service and teaching.

Professional Responsibilities

This section of the instrument is made up of four parts. The first consists of two statements indicating the faculty willingness to teach or conduct research. A five-point scale indicating faculty's agreement was used. The range of response is "very good" to "very low."

The second consists of seven statements of standard faculty tasks, such as used by Eckert and Williams (1972) in their investigation of job satisfaction of college and university faculty, and by Iadd and Lipset (1975) in their national survey of faculty political and educational orientations. A five-point scale indicating degree of importance each tasks has for the respondent was used. The range of response is "Highest importance" to "Not important."

The third is faculty interests (research and teaching), responsibilities (teaching or administration), and the extent of respondents'

committee, consulting and publication experiences. Faculty were also asked about their experience in conducting research, or lack of it.

Attitudes

The attitude statements about research were formulated from the writer's observation, experience, and knowledge of issues. These statements were designed to elicit (1) the extent of support of the idea of research, (2) faculty perceptions of the quality of output and of research programming in the university, (3) faculty willingness to conduct research as part of their regular assignments and, (4) their evaluation of the research and development center of the university.

As in the university research functions and university goals sections, a five point scale indicating degrees of importance each statement has for the respondent was used.

Biographical Data

Each respondent's professional data, present discipline, academic rank, teaching experience and sex were included in this section.

Development and Testing of the Instrument

The instrument was developed in several stages. It initially consisted of 50 items, which the investigator had accumulated as potential points for exploration in the study. In order to gain criticism of the conceptualization of the research and to streamline the instrument for quick use, the 50 items were reviewed by researchers, statisticians and professors who were asked to point out ambiguities in the language and overlaps and gaps in the information sought. The instrument was revised

and the review process was repeated with a second group of researchers, statisticians and professors.

The third version of the instrument (46 items) was administered to 20 Oklahoma State University graduate students. The results of this trial run affirmed the existence of significant variance in the respondents orientation and attitude, and identified several redundances. Interviews with the 20 respondents led to further refinement of the language of the items retained.

Finally, in order to tighten the focus of the total project and of the instrument itself, the investigator held extensive interviews with 10 graduate students who were known to be former instructors from their own country. They had not previously heard of the research project.

The final instrument, which appears in Appendix B, page 114 consisted of 40 items. This version of the instrument was administered to five graduate students who reported that the instrument took between seven to 10 minutes to complete.

The Population and the Samples

Following is a brief description of the CLSU, the 10 university units, and the manner in which faculty samples were drawn.

The Central Luzon State University

The Central Luzon State University was founded in 1907. Begun as a farm school, the institution was converted into a college in 1950 and was elevated into a university in 1964 to give professional and technical training in agriculture, provide advanced instruction, promote research, literature, philosophy, the sciences, technology and arts.

Central Luzon State University currently enrolls more than 4,000 full-time students. The university offers undergraduate and graduate degrees in many major fields of study and had, at the time of research, a full-time faculty of 290. The university in 1983-84 had an annual income in excess of ₱45 million of which ₱37 million came from the National Government Contribution. Annual budget expressed in terms of pesos (1 U.S. dollar approximately equal to 20 pesos).

The 10 University Units Sampled

The eight colleges, the Research and Development Center and the Office of the Student Services sampled for this study are:

- College of Agriculture
- College of Arts and Sciences
- College of Business Administration
- College of Education
- College of Engineering
- College of Home Science and Industry
- College of Inland Fisheries
- College of Veterinary Science and Medicine
- Research and Development Center
- Office of Student Services

All the collegiate units were included because together they reflect a diverge range of discipline and a substantial range of faculty participation in research.

Drawing of the Samples

In the school year 1984-85, separate rosters for each of the eight

colleges and of the two university divisions were provided by the University Mailing Office. Names and ranks were verified by the Payroll Section. By use of random-number tables, a separate sample was drawn from each college and division roster. Each sample was stratified to represent the rank distribution of each department within each eight colleges and two divisions, thus insuring some depth of the representativeness in numbers and ranks. The total drawn represented approximately 50 percent of the collegiate populations. In addition, all department chairpersons in each of the eight colleges and two divisions were added to the list of recipients (Total N = 290).

Table I shows the N of each population sampled, the sample size at each rank in each college and division, and the response rate by rank and by college or division.

Collection and Analysis of the Data

In the school-year 1984-85, the project, the instrument and a cover letter (Appendix A, p. 112), and the entire process were reviewed and approved by the office of the Presidential Assistant for Internal Development, CLSU. This office had agreed to lend its name to the cover letter as the sponsor of the project and sender and receiver of the instrument. The office supported the collection of data in this way because the Presidential Assistant believed in (1) the "potential importance for future program development at the university." (2) agreed with the need to neutralize the questioning in order to avoid both negative and positive response bias likely to occur if the investigator's name was used.

Each instrument was coded for the purpose of sending follow-up re-

TABLE I
THE STRATIFIED SAMPLES; RESPONSE

University Unit	Instructor	Assistant Professor	Associate Professor	Department Chairperson	Total Sent	Total Usable Response	Percent Response
Agriculture	23	3	0	7	35	33	94
Arts and Sciences	24	1	0	5	34	30	88
Business Administration	3	0	0	1	5	4	94
Education	20	3	0	3	28	26	93
Engineering	9	2	0	2	13	13	100
Home Science and Technology	5	3	0	1	10	9	90
Inland Fisheries	9	0	0	1	11	10	91
Research and Development Center	14	1	0	3	19	18	95
Student Services	6	5	1	1	15	13	87
Veterinary Science and Medicine	5	0	1	1	9	7	78
Total Sent	130	20	3	26	179		
Total Usable Response	118	18	2	25		163	
Percent Response	91	90	67	96			91

quests to non-respondents. On September 1, 1984, 179 coded questionnaires were sent by campus mail to the samples indicated above. Three weeks from the initial mailing, a total of 163 questionnaires or 91 percent had been returned.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF FINDINGS

This chapter examines and reports the following:

1. Background characteristics of respondents
2. Hypotheses advanced in Chapter III
3. Data analysis and interpretation of findings

The data used in the analysis and report on findings presented in this chapter were obtained from a sample of faculty members (instructors and administrators) who responded to a survey questionnaire conducted in the Central Luzon State University, Philippines during the months of September and October, 1984.

Background Characteristics of Respondents

This section describes and compares the subjects of the present study in terms of the following variables: sex, marital status, present discipline, highest educational qualification, teaching experience, level of present students, and present academic rank. Data for the analysis were obtained from the responses to the items in Part IV--Biographical Details of the Survey Questionnaire (Appendix B, p. 120).

The design of the study called for different groups of respondents whose opinions and agreements were to be described and compared. The mode or most frequently reported answer was used to describe each group in terms of the selected background characteristics.

The data analysis reported in this section is purported to provide information regarding the background characteristics of the faculty members who are the subjects of this study.

Table II shows that 52 percent of the instructors and 68 percent of the administrators are male; and 48 percent and 32 percent are female, respectively. The majority of the instructors and administrators are male.

TABLE II
DISTRIBUTION OF RESPONDENTS BY
PRESENT POSITION AND SEX

Sex	Instructors (N = 138)		Administrators (N = 25)	
	Number	Percent	Number	Percent
Male	72	52	17	68
Female	66	48	8	32

Table III shows that 36 percent of the instructors and none of the administrators are single; and 64 percent of the instructors and all of the administrators are married. Hence, majority of the instructors and all of the administrators are married.

Table IV shows the variations in terms of number of years in teaching of the instructors and administrators. Thirty-six percent of the

TABLE III
 DISTRIBUTION OF RESPONDENTS BY PRESENT
 POSITION AND MARITAL STATUS

Marital Status	Instructors (N = 138)		Administrators (N = 25)	
	Number	Percent	Number	Percent
Single	49	36	0	0
Married	89	64	25	100

TABLE IV
 DISTRIBUTION OF RESPONDENTS BY
 PRESENT POSITION AND NUMBER
 OF YEARS IN TEACHING

	Instructors (N = 138)		Administrators (N = 25)	
	Number	Percent	Number	Percent
One year or less	17	12	0	0
1 - 5 years	50	36	0	0
6 - 10 years	34	25	2	8
11 - 20 years	20	15	13	52
20 years or more	17	12	10	40

instructors have been in the teaching service between two and five years and 25 percent have between six and 10 years, whereas 52 percent of the administrators have between 11 and 20 years' experience and 40 percent more than 20 years. Therefore, the majority of administrators have a longer record of teaching service than the majority of the instructors in the sample.

Table V shows the distribution of the faculty members by academic rank and discipline. It is interesting to note that instructors sampled are about evenly spread out among the different disciplines, except that of the disciplines of agriculture, arts and sciences, and education. These percentages are almost twice the largest percentage of instructors in the sample considering any of the other groups of subjects on the lists except that of the Research and Development Center which has 12 percent. Among the assistant professors, it is shown that 25 percent are in Agriculture, while Student Services, Education, Arts and Sciences have 19, 16, and 13 percent, respectively. Among the associate professors, Engineering and Home Science and Industry have 20 percent each, whereas other disciplines have either none or 10 percent. Majority of the faculty members with a rank of instructor are in the disciplines of Arts and Sciences, Agriculture, and Education, whereas Agriculture, Student Services, and Education have the majority of the assistant professors. Among the 10 associate professors included in the sample, two belong to the discipline of Engineering, two to Home Economics and Industry, while other disciplines have either none or one associate professor. No faculty member in the Central Luzon State University with an academic rank of professor is included in the study.

Table VI shows that the highest professional degree of 63 percent

TABLE V
DISTRIBUTION OF RESPONDENTS BY ACADEMIC
RANK AND PRESENT DISCIPLINE

Professional Discipline	Instructors (N = 121)		Assistant Professors (N = 32)		Associate Professors (N = 10)	
	Number	Percent	Number	Percent	Number	Percent
Agriculture	24	20	8	25	1	10
Arts and Sciences	25	21	4	13	1	10
Business Administration	3	3	0	0	1	10
Education	21	17	5	16	0	0
Engineering	9	7	2	6	2	20
Home Science and Industry	5	4	1	3	2	20
Inland Fisheries	9	7	1	3	0	0
Veterinary Science and Medicine	5	4	1	3	1	10
Research and Development Center	14	12	3	9	1	10
Student Services	6	5	6	19	1	10
Total	121	100%	32	100%	10	100%

TABLE VI
DISTRIBUTION OF RESPONDENTS BY ACADEMIC
RANK AND PROFESSIONAL DEGREE

Professional Degree	Instructors (N = 121)		Assistant Professors (N = 32)		Associate Professors (N = 10)	
	Number	Percent	Number	Percent	Number	Percent
BS or its Equivalent	76	63	1	3	0	0
MS or its equivalent	45	37	14	44	4	40
Ph D or its equivalent	0	0	17	53	6	60

of the faculty members having the rank of instructor is a bachelor's degree, whereas 53 percent and 60 percent of the assistant and associate professors, respectively is doctorate's degree. It appears that majority of the faculty members having the rank of instructor have a bachelor's degree, whereas majority of the assistant and associate professors have a doctorate degree. Table VI also shows that a majority of the assistant and associate professors have a higher educational qualification than a majority of the instructors.

Table VII shows that 40 percent of the faculty members having the rank of instructor, 50 percent of the assistant professors and 70 percent of the associate professors are conducting upper division courses. Thirty-five percent of the instructors, 38 percent of the assistant professors and 30 percent of the associate professors are conducting lower division courses. While 16 percent of the instructors and three

TABLE VII
 DISTRIBUTION OF RESPONDENTS BY
 LEVEL OF STUDENTS AND RANK

Level of Student	Instructors (N = 121)		Assistant Professors (N = 32)		Associate Professors (N = 10)	
	Number	Percent	Number	Percent	Number	Percent
High School	19	16	1	3	0	0
Lower Division	43	35	12	38	3	30
Upper Division	48	40	16	50	7	70
No Response	11	9	3	9	0	0

percent of the assistant professors are conducting courses in the high school. It appears then, that the majority of the associate professors are conducting upper division courses. Nine percent of both the instructors and assistant professors in the sample did not reply.

In summary, the typical respondent in the instructor group possesses the following characteristics:

1. For the rank of instructor: married, male with a bachelor's degree as his highest educational qualification. He has been in the teaching service from two to five years.
2. For the ranks of assistant and associate professors: similar characteristics, except that the assistant and associate professors have been in the teaching service from 11 years or more and have at least a master's degree. The typical respondent in

the administrator group has similar characteristics with that of an assistant or associate professors.

Hypotheses Advanced in Chapter III

This section examines the hypotheses stated in Chapter III regarding the faculty agreement and attitudes toward research. Because the hypotheses are so numerous and interwoven, the investigator has chosen, for simplicity of reading, not to use the null hypothesis convention.

Scales in the following discussion reflect a compression of somewhat different ideas into a summary response. A more accurate reflection of faculty response is revealed in the mean scores of each item. Also, detailed information regarding relative levels of support and agreement among faculty members, comparative support and agreement within faculties and correlations are provided.

Faculty Agreement of the Basic Functions of Research

Hypotheses regarding faculty agreement or support toward the basic functions of research reflect the investigator's contention that there is considerable variability in the agreement or support for research and that it is relative to faculty agreement or support of other university goals.

Hypothesis 1: Central Luzon State University

Faculty Support the Concept of Research

Support of the concept of research (or lack of it) is measured by faculty response to five items--the four basic functions of research

statements (items 1, 2, 3, and 4) and one attitude item (item 37). A minimum total score for all respondents of 20 is regarded as allowing acceptance of the hypothesis. A total mean score of 16 derives from an assumed average score on the basic research functions of 4, "agree" and a score on the attitude of 4, "agree" on a five point scale. That is, $4 \times 4 = 16 + 4 = 20$)

Table VIII shows the scores of the individual research functions and one attitude item.

TABLE VIII
SCORES OF THE INDIVIDUAL RESEARCH FUNCTIONS
AND ATTITUDE ITEMS

Item No.	Item	Mean
1	Identify problems occurring in the social, economic, and cultural lives of the people of the country.	4.6
2	Provide answers to operational questions confronting the social, economic, and cultural lives of the people of the country.	4.3
3	Evaluate educational programs, practices and materials used in the schools, and to provide new ideas and guidance.	4.5
4	Build a body of information and develop valid theory about the educational processes and enterprise.	4.2
37	The university ought to be as committed to the research staff as it is to the teaching staff.	4.6

Scoring for both basic research functions and attitude items is:

4.0 = "agree"
5.0 = "strongly agree)

The mean score of all respondents (N = 163) to the above scale "Support of Research Functions" is 22.2, and Hypothesis 1: Central Luzon State University faculty support the concept of research, can not be rejected.

Hypothesis 2: Faculty Agreement with the Basic Functions of Research Varies Significantly with Teaching Experience, Discipline, and Sex

In all parts of hypothesis 2, difference is taken to be significant if it is at the .01 level of confidence or greater.

Analysis of variance reveals that faculty (N = 163) "Agreement with the Basic Functions of Research" does not vary significantly with teaching experience, discipline and and educational degrees.

A t-test also reveals that faculty agreement with the basic research functions does not vary significantly with marital status, present academic position, and sex.

Hypothesis 3: Faculty Agreement with the Major Goals to be Achieved by CLSU Varies Significantly as a Function of Teaching Experience, and Academic Rank

A two-way univariate analysis of variance reveals that faculty (N = 163) "Agreement with the Major Goals to be Achieved by CLSU" does not vary significantly as a function of teaching experience and present academic rank.

Hypothesis 3: Faculty agreement with the major goals to be achieved by CLSU varies significantly as a function of teaching experience, and

academic rank is rejected. This implies that agreement of the faculty with regard to the major goals to be achieved by CLSU does not vary as a function of teaching experience and present academic rank.

Hypothesis 4: Faculty Agreement with Basic Functions of Research Differs with the Faculty Agreement with Major University Goals

For this hypothesis, the four basic functions of research and the four major goals to be achieved by CLSU (Table IX) will be used. Difference is taken to be significant if it is at the .01 level of confidence or greater.

Analysis of variance shows that the score of the most strongly endorsed university goals (items 5 and 8) is not significantly higher ($p < .05$) than the score of least strongly supported research function (item 4).

The hypothesis "Faculty agreement with the basic functions of research differs with the faculty agreement with major goals to be achieved by the university is rejected. Faculty agreement with the research functions is as good as their agreement with the major goals to be achieved by the university.

The Faculty's Professional Identification
with Conducting Research or
Research Courses

Hypotheses regarding the faculty's professional identification with conducting research or research courses reflect the investigator's contention that faculty are willing to conduct research or research courses

as part of their regular responsibilities. In this section items 9, 10, 34, 38, and 39 were used.

TABLE IX

THE FOUR BASIC FUNCTIONS OF RESEARCH AND
THE FOUR MAJOR GOALS TO BE ACHIEVED BY
CENTRAL LUZON STATE UNIVERSITY

Item No.	Research Function or University Goal	Mean
1	Identify problems occurring in the social, economic, and cultural lives of the people of the country.	4.6
2	Provide answers to operational questions confronting the social, economic, and cultural lives of the people of the country.	4.3
3	Evaluate educational programs, practices and materials used in the schools, and to provide new ideas and guidance.	4.5
4	Build a body of information and develop valid theory about the educational processes and enterprise.	4.2
5	Provide students with a broad and liberal education. Prepare students for their chosen occupation.	4.8
6	Assist citizens directly through extension programs, non-credit workshops, and short courses.	4.3
7	Provide retraining for those whose job skills are no longer marketable, and provide education for part time students and adults.	4.1
8	Provide students with a sense of commitment to the responsibilities of citizenship.	4.8

Hypothesis 5: Faculty Express a Positive Willing-
ness to Conduct Research Courses which Include
Instruction in Research Method

A total mean score for the sample of respondents of 8.0 (indicating at least "good" or "agree" for items 9 and 39, respectively) is taken to show faculty willingness to conduct research courses as part of their regular responsibilities.

The total mean score for the sample as a whole (N = 163) on item 9 (At present my own willingness to teach courses which include research method is) and item 39 (I would be willing to conduct research in lieu of other courses as part of my regular teaching duties) is 7.5, indicating the hypothesis can not be accepted. Faculty express a negative willingness to conduct research courses which include instruction in research method.

Hypothesis 6: Faculty Express a Positive Willing-
ness to Conduct Research in Their Respective
Discipline in which They Teach

A mean score for total sample of respondents of 4.0 (indicating "good" for item 10) is taken to show faculty willingness to conduct research in their respective discipline in which they teach.

The mean score for the sample as a whole (N = 163) on item 10 (At present my willingness to engage in conducting research in the discipline in which I teach is) is 4.6, indicating the hypothesis is not rejected. Faculty members express positive willingness to conduct research in their respective discipline in which they teach.

Hypothesis 7: Faculty Agree with the Work Being
Done at the Research and Development Center

Agreement with the work of the Research and Development Center is measured in faculty responses to items 34 and 38 (Table X). A mean score for all the respondents considered together of 4.0 (indicating "agree") is considered to allow acceptance of the hypothesis.

TABLE X
FACULTY AGREEMENT WITH THE WORK BEING DONE AT
THE RESEARCH AND DEVELOPMENT CENTER

Item No.	Item	Mean
34	The quality of output of the Research and Development Center is comparable to that of other research institutions.	4.0
38	The research programs of the Research and Development Center is equally recognized with that of other research institutions' programs.	4.4

The mean score for the total sample of respondents (N = 154) is 4.2. The hypothesis is accepted. Faculty do agree with the work being done at the RDC.

It is also found that the two items (items 34 and 38) which are used to determine faculty agreement with the work being done at the Research and Development Center are correlated.

Hypothesis 9: Faculty Agreement about the Work of the RDC Correlates with Experience in Conducting Research, Agreement with Research Functions, and Faculty Support of the Work of the RDC

Table XI shows the Pearson product moment correlation coefficients between the faculty agreement about the work of the RDC with experience in conducting research, agreement with research functions, agreement with major university goals, and the faculty support with work being done at the RDC.

TABLE XI

THE PEARSON PRODUCT MOMENT
CORRELATION COEFFICIENTS

Item	Experience in Conduct- ing Research	Agreement with Re- search Functions	Agreement with Major University Goals	Faculty Support of the RDC
Work of the RDC	$r = .23$	$r = .50$	$r = .21$	$r = .53$

All parts of the hypothesis are accepted: Faculty agreement about the work of the Research and Development Center is correlated positively with (1) faculty experience in conducting research, faculty agreement with research functions, and faculty agreement with university goals.

Faculty Support of the Research and
Development Center in
the University

Faculty support of the RDC is germane to the determination of the necessity of the existing administrative unit the coordinates research programs in the university.

Hypothesis 10: Faculty Support the Research and
Development Center of the University

Support of the RDC is measured in faculty responses to two items shown in Table XII below.

TABLE XII
STATEMENTS SUPPORTING THE RESEARCH
AND DEVELOPMENT CENTER

Item No.	Item	Mean
36	The Research and Development Center is fulfilling its mission.	4.0
40	The Research and Development Center should be given additional funds to carry out its mission.	4.5

A mean score for all respondents considered together of 4.0 (indicating "agree") is considered to allow acceptance of the hypothesis.

A mean score for the two items above for the total sample of respondents ($N = 153$) is 4.2. The hypothesis is accepted. Faculty do support the Research and Development Center of the University.

Hypothesis 11: Faculty Support of the Research and Development Center Differs by College

Analysis of variance reveals that faculty support of the RDC is not different at the .01 level of confidence. The hypothesis is rejected. Faculty support of the RDC do not vary significantly by college.

Hypothesis 12: Faculty Support of the RDC Varies Positively with Experience in Conducting Research, Agreement with Research Functions and Agreement with Major University Goals

Table XIII shows the Pearson product correlation coefficients showing variability of support of the RDC.

TABLE XIII
PEARSON PRODUCT MOMENT CORRELATION
COEFFICIENTS

Item	Experience in Conducting Research	Agreement with Research Functions	Agreement with Major University Goals
Support of Research and Development Center	$r = .28$	$r = .23$	$r = .34$

All parts of the hypothesis are accepted: Support of the Research and Development Center correlates positively with faculty experience in conducting research, faculty agreement with research functions, and faculty agreement with major university goals.

Data Analysis and Interpretation of Findings

This section reports the importance faculty attach to each of the eight institutional purposes (four research functions, two extension goals, and two traditional or teaching goals) of the Central Luzon State University.

Importance of Institutional Purposes as Agreed By Faculty

Among the eight institutional purposes sampled CLSU faculty give greatest weight to "providing students with a broad, liberal education; preparing them for their chosen occupation," and "providing students with a sense of commitment to the responsibilities of citizenship." Faculty give less importance to "identifying problems occurring in the social, economic, and cultural lives of the people," and "providing answers to operational questions confronting the socioeconomic and cultural lives of the people," and lesser priority to "assisting citizens directly through extension programs, non-credit workshops, and short courses," and "providing retraining for those whose job skills are no longer marketable and providing education for part time students and adults."

The More Important Purposes for CLSU

While two of the more important purposes have slightly different

means among the ten faculties, the faculty as a whole agree these purposes to be more important (mean at least 4.5) for the CLSU. Table XIV shows the four most important institutional purposes which the faculty members agreed to be achieved by the Central Luzon State University.

TABLE XIV
THE FOUR MOST IMPORTANT INSTITUTIONAL PURPOSES
TO BE ACHIEVED BY C.L.S.U.

Rank	Institutional Purpose	Mean
1	Provide students with a broad, liberal education. Prepare students for their chosen occupation.	4.8
2	Provide students with a sense of commitment to the responsibilities of citizenship	4.8
3	Identify problems occurring in the social, economic and cultural lives of the people.	4.5
4	Provide answers to operational questions con- fronting the social, economic and cultural lives of the people.	4.5

Faculty regard providing students with a broad, liberal education, and a sense of commitment to the responsibility of citizenship as the most important purposes for the university (Table XIV). Support for these purposes shows relatively small differences among the faculties or teaching experience or level of present students or marital status or present academic rank or discipline or educational attainment or

present academic position or between sexes; the range in agreement which the faculties attribute to these purposes is slight (Table XV). Providing students with a broad, liberal education and preparing students for their chosen occupation is considered first or second most important institutional purposes by nine of the 10 faculties (not by the Engineering), including the faculty of the Arts and Sciences (an undergraduate college, with most of its student body in the lower division). Mean rankings by each of the faculties of the eight institutional purposes are given in Table XVI.

"Providing students with a sense of commitment to the responsibilities of citizenship" (often thought of as a by-product of Arts and Sciences or Liberal Education) is ranked first or second most important by seven of the faculties (not by Home Science and Industry, Inland Fisheries, and Veterinary Science and Medicine faculties). Faculty at the lower ranks give this purpose lesser emphasis than do faculty at the upper ranks, but department chairpersons emphasize the importance more than any of the other faculties. The strength of agreement given to this purpose suggests again the value placed upon undergraduate education at the Central Luzon State University.

Within the four more important institutional goals are found somewhat disparate purposes embracing both research and teaching. For example, "Providing students with a sense of commitment to the responsibilities of citizenship" have the same importance with "Providing students with a broad, liberal education." Identifying problems in the social, economics, and cultural lives of the people," and "providing answers to operational questions" have almost equal support and only slightly less importance than the providing students with a broad, liberal

MEAN AGREEMENT OF EIGHT UNIVERSITY PURPOSES:
RANGE OF MEANS OF FACULTIES

TABIE XV

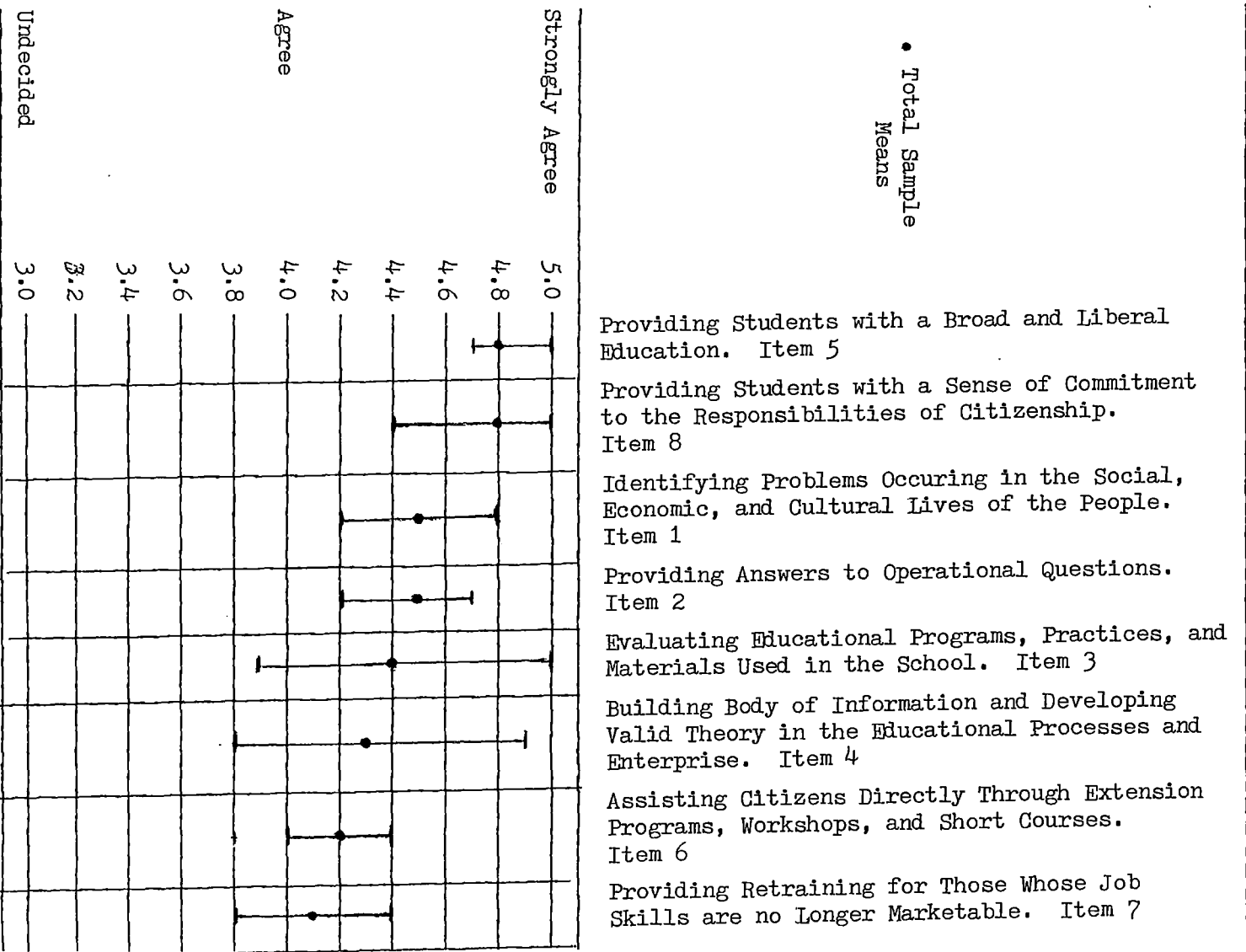


TABLE XVI

MEAN RANKINGS BY EACH OF THE TEN FACULTIES
OF THE EIGHT UNIVERSITY PURPOSES

Item	Mean	Rank	Agriculture	Arts and Sciences	Business Administration	Education	Engineering	Home Science and Industry	Inland Fisheries	Veterinary Sc. & Med.	Research and Dev. Center	Student Services
1	4.5	2	4.2	4.5	4.2	4.4	4.8	4.4	4.3	4.7	4.7	4.5
2	4.5	2	4.5	4.4	4.5	4.2	4.4	4.6	4.6	4.4	4.7	4.4
3	4.4	3	4.4	4.6	4.0	4.2	4.5	4.3	5.0	4.4	4.4	3.9
4	4.3	4	4.2	4.4	4.0	4.2	4.7	3.9	4.8	4.3	4.9	3.8
5	4.8	1	4.8	4.9	4.7	4.8	4.7	4.7	5.0	4.8	4.7	4.7
6	4.2	5	4.1	4.2	4.0	4.2	4.4	4.1	4.2	4.2	4.3	4.0
7	4.1	6	3.8	3.9	4.0	4.3	4.3	4.1	4.1	4.2	4.4	4.3
8	4.8	1	4.8	4.9	5.0	4.7	4.8	4.4	4.6	4.6	4.9	5.0
Mean			4.4	4.5	4.3	4.4	4.6	4.3	4.6	4.7	4.6	4.3

- Item 1 - To identify problems occurring in the social, economic, and cultural lives of the people of the country.
- Item 2 - To provide answers to operational questions confronting the social, economic and cultural lives of the people of the country.
- Item 3 - To evaluate educational programs, practices and materials used in the schools, and to provide new ideas and guidance.
- Item 4 - To build a body of information and develop valid theory about the educational processes and enterprise.
- Item 5 - To provide students with a broad, liberal education. Prepare them for their chosen occupation.
- Item 6 - To assist citizens directly through extension programs, non-credit workshops, and short courses.
- Item 7 - To provide retraining for those whose job skills are no longer marketable and provide education for part time students and adults.
- Item 8 - To provide students with a sense of commitment to the responsibilities of citizenship.

education. "Providing students with a sense of commitment to the responsibilities of citizenship" is agreed as one of the university's two more important purposes by seven of the 10 faculties, (not by Home Science and Industry, Inland Fisheries, and Veterinary Science and Medicine). The importance attributed to a broad, liberal education (together with the third ranked purpose "Identifying problems occurring in the social, economic, and cultural lives of the people) suggests that the faculty is substantially committed (at least philosophically) to teaching and to research. As seen in these emphases, the faculty is not bent disproportionately toward teaching and research, as is often believed of the modern university.

"Identifying problems occurring in the social, economic, and cultural lives of the people" and "providing answers to operational questions confronting the social, economic, and cultural lives of the people" make up what may be called the lesser of the university's institutional goals.

The faculty's four more important institutional purposes suggest that the Central Luzon State University is essentially a traditional or teaching-oriented institution but, not dominated by interest in research, it is almost as dedicated to teaching undergraduate as it is to citizenship training and research.

The Institutional Purposes of Medium Importance to the University

The faculty's orientation and philosophy are not revealed entirely by the importance or agreement they place on the top-rated purposes. The four purposes of medium importance (Table XVI) have scores of 4.1 to 4.4, indicating endorsement closer to "agree," than to "strongly

agree." These goals reflect additional commitment, especially on the part of specific faculties.

Table XVII shows the institutional purposes which is of medium importance to the university as perceived by the faculty members.

TABLE XVII
INSTITUTIONAL PURPOSES OF MEDIUM IMPORTANCE TO THE
UNIVERSITY

Rank	Institutional Purposes	Mean
5	Evaluate educational programs, practices and materials used in the schools, and provide new ideas and guidance.	4.4
6	Build a body of information and develop valid theory about the educational processes and enterprise.	4.3
7	Assist citizens directly through extension programs, non-credit workshops, and short courses.	4.2
8	Provide retraining for those whose job skills are no longer marketable and provide education for part time students and adults.	4.1

Whether Central Luzon State University ought to be evaluating educational programs, practices, and materials used in the schools is debated among faculty. The Inland Fisheries faculty consider this goal together with providing students with a broad, liberal education to be first in importance but the Business Administration faculty rate this purpose last.

"Building a body of information and developing valid theory about the educational processes and enterprise" is ranked first by the Research and Development Center faculty but this purpose is last in the Student Services, and Home Science and Industry faculty rating.

The status of extension purposes is depicted by the placement of two extension-type goals among the four university purposes on which the faculty place of medium importance.

"Providing retraining for those whose job skills are no longer marketable and providing education for part time students and adults" is the most consistently low-ranked purpose and is seventh or eighth in importance for eight of the 10 faculties (not by Education, and Student Services faculties).

"Assisting citizens directly through extension programs, non-credit workshops, and short courses" ranks seventh among the eight university purposes, suggesting that this purpose can not be said to be strongly supported by the 10 faculties. Even to the RDC and Agriculture faculties many of whom have long experience in agricultural extension programs, the function is ranked eighth and seventh, falling well below that faculty's emphasis upon research, training of students, and broad, liberal education. The highest rank is placed on it by the Education and Student Services faculties, each rating the item as sixth.

The relatively lower status overall that is shared by assisting citizens directly through extension programs and retraining of those whose job skills are no longer marketable, and teaching of part time students and adults suggests that Central Luzon State University faculty are exclusive or traditional not in people they will serve, but in the purposes or kinds of educational activities they deem important.

The Traditional Functions

Functions which are considered to encompass traditional purposes are shown in Table XVIII.

TABLE XVIII
TRADITIONAL PURPOSES

Item No.	Item	Mean
5	To provide students with a broad, liberal education. Prepare them for their chosen occupation.	4.8
8	To provide students with a sense of commitment to the responsibilities of citizenship.	4.8

These are essentially the traditional or teaching purposes of most universities in the Twentieth Century. The emphasis is on teaching; the research associated with the other items seem to be that which underpins the educational or instructional effort of the university.

For all respondents considered together, the traditional goals has a mean of 4.8 (closer to "strongly agree") with 83 percent of the respondents rating it "strongly agree." The most traditional faculties are in the Arts and Sciences, Business Administration; the least traditional are those in Home Science and Industry, and Veterinary Science and Medicine. Eighty-seven percent of the senior faculty give traditional purposes greater emphasis as compared to 83 percent of the lower-ranking

faculty members. Table XIX lists the 10 faculties in order of their traditionalness.

TABLE XIX
MEAN SCORES OF THE FACULTIES ON THE
TRADITIONAL PURPOSES

Rank	Faculty	Mean
1	Arts and Sciences	4.89
2	Business Administration	4.88
3	Student Services	4.87
4	Research and Development Center	4.86
5	Inland Fisheries, Agriculture	4.82
6	Education	4.76
7	Engineering	4.73
8	Veterinary Science and Medicine	4.70
9	Home Science and Industry	4.57

10

The total sample mean of 4.8 and the limited range in the agreement (4.6 to 4.9) indicate that the Central Luzon State University faculty "strongly agree" in traditional purposes as found in this investigation.

The Research Functions

The research functions considered in this study are shown in Table

XX. The four items may be used to reflect faculty emphasis of a broad social service orientation. The mean score for all faculty respondents considered together is 4.4. This mean score indicates that the faculty

TABLE XX
RESEARCH FUNCTIONS

Item No.	Research Function	Mean
1	To identify problems occurring in the social, economic, and cultural lives of the people.	4.5
2	To provide answers to operational questions confronting the social, economic, and cultural lives of the people.	4.5
3	To evaluate educational programs, practices and materials used in the schools, and to provide new ideas and guidance.	4.4
4	To build a body of information and develop valid theory about the educational processes and enterprise.	4.3

consider these functions to be important but slightly less importance than traditional functions. A single score for each collegiate faculty on each of the four research functions was derived by averaging the mean responses of each faculty to the individual items.

Table XXI lists the 10 faculties and the rank of means they give to research functions. As with the traditional purposes, the differences in mean levels of agreement of research functions has a limited range

TABLE XXI
 MEAN SCORES OF THE FACULTIES ON THE
 RESEARCH FUNCTIONS

Rank	Faculty	Mean
1	Inland Fisheries	4.7
1	Research and Development Center	4.7
2	Engineering	4.6
3	Arts and Sciences	4.5
3	Veterinary Science and Medicine	4.5
4	Agriculture	4.3
4	Home Science and Industry	4.3
5	Education	4.2
5	Business Administration	4.2
5	Student Services	4.2

(4.2 to 4.7) among the faculties. Even those which are themselves not heavily engaged in research believe, nevertheless, that the university should emphasize research functions.

Within the academic ranks, senior faculty give these functions a greater weight than the junior faculty.

Two distinct but complimentary facets of university purpose roughly the teaching and research-based service orientations of the institution, represent the major interests of the faculty. A third segment of university purpose--extension-type goals--has substantially less endorsement.

Extension-Type Purposes

The goal items on extension-type functions are shown in Table XXII. The mean score for all the respondents considered together is 4.2, which is closer to "agree" than to "strongly agree." As with the traditional and research purposes, the difference in mean levels of agreement of extension functions has a limited range (3.9 to 4.4 as shown in Table XXIII) among the faculties. The contrast to the support given to tradi-

TABLE XXII
GOAL ITEMS ON EXTENSION-TYPE FUNCTIONS

Item No.	Extension-Type Functions	Mean
7	To assist citizens directly through extension programs, non-credit workshops, and short courses.	4.2
8	To provide retraining for those whose job skills are no longer marketable and provide education for part time students and adults.	4.1

tional and research functions by senior faculty, is that lower-ranking faculty (48 percent) emphasize extension-type goals more strongly than senior faculty (45 percent) do.

Table XXXIII lists the 10 faculties of the agreement they give to extension-type university purposes. Of the two extension-type goals, the one having stronger faculty endorsement is "assist citizens directly

TABLE XXIII
 MEAN SCORES OF THE FACULTIES ON THE
 EXTENSION-TYPE FUNCTIONS

Rank	Faculty	Mean
1	Engineering	4.38
2	Research and Development Center	4.32
3	Education	4.28
4	Veterinary Science and Medicine	4.22
5	Inland Fisheries	4.19
6	Student Services	4.14
7	Home Science and Industry	4.13
8	Arts and Sciences	4.03
9	Business Administration	4.00
10	Agriculture	3.91

through extension programs, non-credit workshops, and short courses. But support for this goal, as was shown earlier in the chapter is still relatively modest--4.2, which is closer to "agree" or of medium importance.

Analysis of the importance that faculty place on university purposes depicts the legendary three-fold purpose (teaching, research, and extension) of the Central Luzon State University.

Table XXIV shows the correlation coefficients between the three patterns of faculty goals. These correlation coefficients imply that faculty who are supportive to teaching goals are also sympathetic to both

TABLE XXIV
CORRELATION COEFFICIENTS BETWEEN THE THREE
PATTERNS OF FACULTY GOALS

	Teaching Goals	Research Goals
Extension Goals	$r = .29$	$r = .33$
Teaching Goals		$r = .19$

research and extension goals and would suggest that faculty who endorsed research goals are not being antagonized by the extension goals.

Faculty Roles

In addition to the institutional goals faculty believe most important for the Central Luzon State University to emphasize, this study examined the academic roles most important to the faculty members. This section describes (1) the academic roles which the CLSU faculty deem most important in the fulfillment of their professional lives, and (2) the relationships between faculty roles and the university goals faculty think most important.

Importance of Specific Academic Roles to the Faculty

The roles that the faculty ranked of highest importance are teaching regular courses, improving teaching skills, and doing research (Table XXV). Of great important roles are advising students, and con-

TABLE XXV
 MEAN RANKINGS BY EACH OF THE TEN FACULTIES
 OF THE EIGHT FACULTY ROLES

Item	Mean	Rank	Agriculture	Arts and Sciences	Business Administration	Education	Engineering	Home Science and Industry	Inland Fisheries	Veterinary Science and Medicine	Research and Development Center	Student Services
11	4.9	1	4.9	4.9	5.0	4.8	5.0	4.7	4.9	5.0	4.9	5.0
12	4.9	1	4.8	4.8	5.0	4.9	5.0	4.9	5.0	5.0	4.4	4.6
13	4.4	3	4.6	4.4	4.3	4.2	4.3	3.9	4.7	4.6	4.3	4.5
14	4.8	2	4.9	4.9	5.0	4.6	4.9	4.7	4.6	4.8	4.9	5.0
15	4.0	6	4.2	4.1	4.0	3.8	3.9	3.3	4.2	4.2	4.6	3.8
16	4.1	5	4.0	3.9	4.0	4.0	4.0	3.9	4.1	4.0	4.3	4.4
17	4.2	4	4.2	4.0	4.7	3.7	4.2	4.3	3.8	4.6	4.1	4.5
18	4.0	7	4.0	4.0	4.0	3.8	4.0	3.9	3.6	4.0	4.0	4.2

Item 11 - Teaching regular courses

Item 12 - Improving my teaching skills

Item 13 - Advising students

Item 14 - Doing research

Item 15 - Serving on university committees

Item 16 - Writing for publication

Item 17 - Consulting to government, industry, business
and other agencies

Item 18 - Performing administrative tasks

sulting to government, industry, business, and other agencies, suggesting that not only do the faculty believe that the university as an institution should emphasize advising students but also that they are personally committed to consulting. Of lesser importance to the faculty are performing administrative tasks, serving on university committees, and writing for publication.

Roles of Highest Importance to the Faculty

The faculty as a whole regard three roles to be of highest importance in contributing to the fulfillment of their lives. Table XXVI shows the rank and means of these roles.

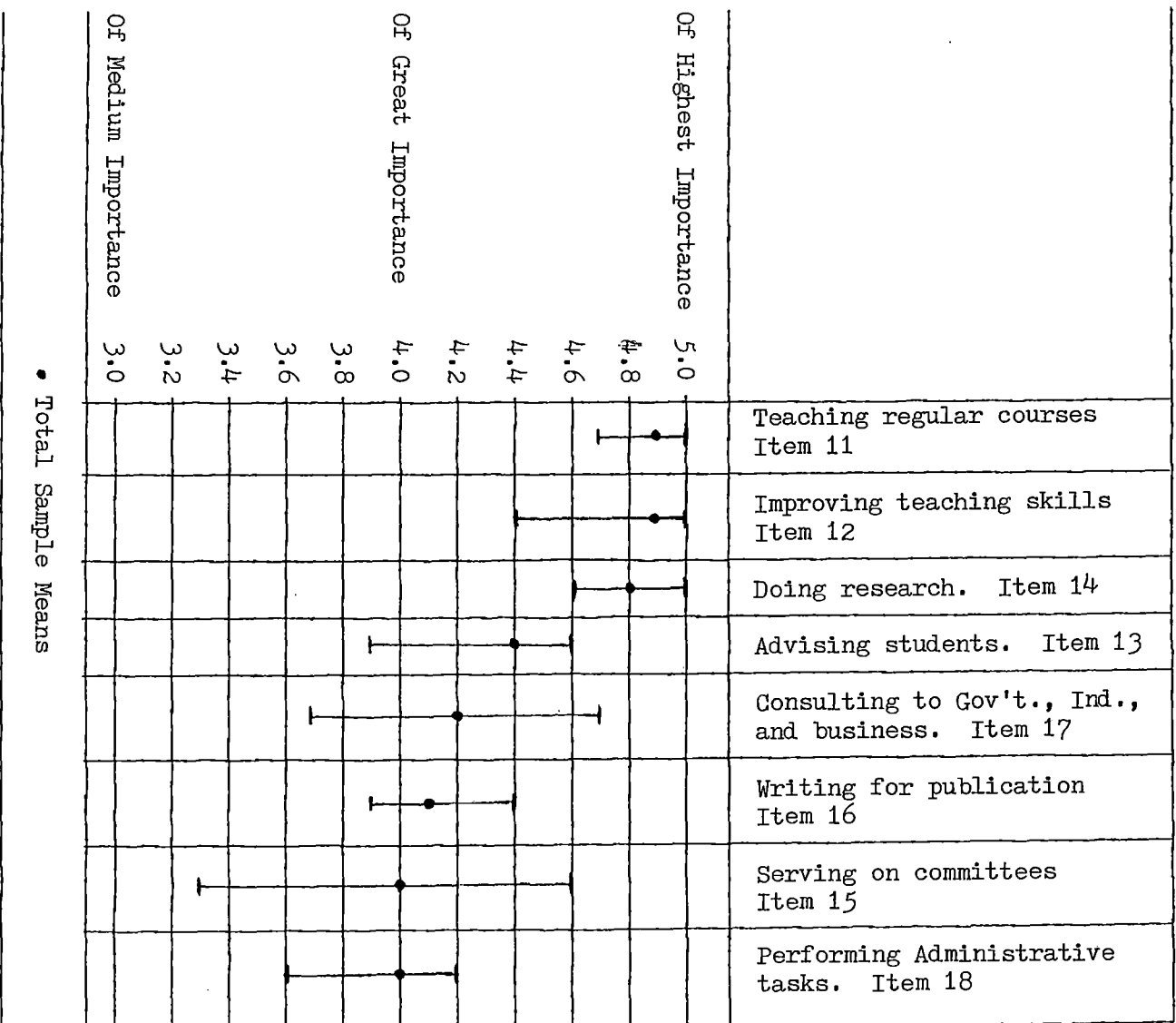
TABLE XXVI
ROLES OF HIGHEST IMPORTANCE TO THE FACULTY

Item No.	Rank	Item	Mean
11	1	Teaching regular courses	4.91
12	2	Improving teaching skills	4.89
14	3	Doing research	4.85

"Teaching regular courses" has the highest mean importance for the faculty as a whole and it is a first ranked role (tied in some faculties with either "Improving teaching skills" or "Doing research") for seven

TABLE XXVII

MEAN IMPORTANCE OF EIGHT UNIVERSITY ROLES:
RANGE OF MEANS OF FACULTIES



of the 10 faculties. It is ranked second by the Education, Home Science and Industry, and Inland Fisheries faculty. This indicates the Central Luzon State University faculty are primarily traditional in the sense that they feel they are committed to teaching regular courses. Table XXVII shows the range of importance the faculties place on the roles. "Improving teaching skill" is the second highest rated role. The importance of improving teaching skills further defines colleges in which the teaching role dominates. It is of highest important role for six faculties (tied with "teaching regular courses" for Business Administration, Engineering, and Veterinary Science and Medicine faculty). It is ranked second-most important role by the Agriculture, Research and Development Center, and Student Services faculty. Arts and Sciences faculty ranked this role third most important behind "Teaching regular courses" and "Doing research".

"Doing research" is the third highest rated role by the faculty as a whole. It is the first rated role for four faculties - Agriculture, Business Administration, RDC, and Student Services. For these four faculties, "teaching regular courses" and "doing research" seem to be integral parts of a single role. "Doing research" is ranked second most important role by Arts and Sciences, Engineering, and Home Science and Industry faculty. The lowest rank for this role is given by Inland Fisheries, who rated "doing research" as fourth most important role behind "teaching regular courses," "improving teaching skills," and "advising students."

Roles of Greater Importance to the Faculty

The two roles which the faculty as a whole regarded to be of great-

er importance in contributing to the fulfillment of their academic lives are shown in Table XXVIII.

TABLE XXVIII
ROLES OF GREATER IMPORTANCE TO THE FACULTY

Item No.	Rank	Item or role	Mean
13	4	Advising students	4.4
17	5	Consulting to government, industry, business, and other agencies	4.2

Second-level roles have two types, "advising students" and "consulting to government, industry, business, and other agencies" with greater importance given to advising students.

The importance of "advising students" further defines colleges in which the instructional roles dominates. Advising students is ranked the third-most important role to faculties of Agriculture, Business Administration, Engineering, Inland Fisheries, and Student Services, and fourth in importance to the other five faculties.

"Consulting to government, industry, business, and other agencies" is about as important to those faculties as is advising students. It is second in importance for the Business Administration faculty and third for Home Science and Industry, and Student Services faculties. The faculties of Agriculture, Engineering, Veterinary Science and Medi-

cine ranked it as fourth-most important faculty role. It is ranked below even "writing for publication" by the Education, Inland Fisheries, and RDC faculties. It is considered no higher than fifth, even by the Arts and Sciences, and Research and Development Center faculties, for whom involvement in the practical concerns of the field would seem legitimate augmentation to research and teaching. Not surprisingly, consulting is valued more by senior ranking faculty than by junior faculty.

Roles of Great Importance to the Faculty

The rank and mean scores of roles which are of great importance to the faculty are shown in Table XXIX. The mean score of these roles is

TABLE XXIX
ROLES OF GREAT IMPORTANCE TO THE FACULTY

Item No.	Rank	Item or Role	Mean
16	6	Writing for publication	4.1
15	7	Serving on university committees	4.0
18	8	Performing administrative tasks	4.0

4.0, which falls on the category of "great importance." "Writing for publication" is, for the faculty as a whole, decidedly of great role but the difference in importance placed on this role by the various faculties

help further to define the research-teaching dichotomy. "Writing for publication" tend to be more important to faculties that emphasize research, especially Research and Development Center, Student Services, and Home Science and Industry faculties. But this role ranked fifth and sixth, behind "serving on university committees" for Agriculture, Inland Fisheries, and Veterinary Science and Medicine, as well as for the faculty of Arts and Sciences.

"Serving on university committees" is also uniformly lesser important to the faculty as a whole. Women faculty consider committee work more important than men do. Serving on committees have somewhat more value to department chairpersons (with a mean of 4.1) than to the faculty as a whole (with a mean of 4.0), slightly above of "great importance." In most departments, chairpersons are drawn from the faculty, often on a seniority basis, and they remain active in teaching, research, and serving in committees, thus continuing to value this role more.

Faculty Role Emphases

The Central Luzon State University faculty as a whole emphasize most teaching regular courses combined with improving teaching skills and doing research. Table XXX shows the percentages, by faculty, of respondents who report they are currently engaged in scholarly work or research which they expect will lead to publication.

For the total sample as a whole, 42 percent of the faculty report they are currently engaged in work they expect to lead to publication, as compared to 72 percent of the administrators.

Table XXXI shows the percentages the faculty assigned to their interest in teaching, research and extension.

TABLE XXX
WORK IN-PROGRESS FOR PUBLICATION

University Unit	Percent
Inland Fisheries	100
Research and Development Center	86
Administrators	72
Agriculture	50
Engineering	44
Student Services	36
Arts and Sciences	35
Veterinary Science and Medicine	30
Education	14
Business Administration	0
Home Science and Industry	0

The faculty as a whole suggests that 57 percent of their time be devoted to teaching, 25 percent to conducting research and about 18 percent to extension work.

There is a substantial evidence that majority of the faculty members have a teaching orientation, but there are differences among faculties on the interest they place on teaching, research and extension. Agriculture, and Arts and Sciences faculty, for example, emphasize teaching and research but not extension. The faculty in Research and Development Center, and Inland Fisheries are more interested in doing research than

TABLE XXXI
PRIMARY FACULTY INTERESTS

Faculty	Teaching (%)	Research (%)	Extension (%)
Agriculture	54	29	17
Arts and Sciences	72	20	8
Business Administration	70	14	16
Education	69	15	16
Engineering	58	20	22
Home Science and Industry	77	12	11
Inland Fisheries	36	45	19
Veterinary Science and Medicine	61	18	21
Research and Development Center	26	56	18
Student Services	51	17	32
Administrators	52	31	17

teaching, but show minimal interest in extension. Student Services faculty show more interest in teaching and extension than doing research. For the Business Administration, Education, Engineering, and Home Science and Industry faculties their main interest is in teaching, and they show almost equal interest in both research and extension.

There are also differences among the academic ranks. Instructors show little interest in research and extension. Assistant and associate professors on the otherhand placed more emphasis upon research and publication.

It should be recalled that the university goals show little conflict with one another. Teaching or traditional goals are slightly correlated to both research and extension goals ($r = .19$ and $.29$, respectively). Research and extension goals have a high positive correlation ($r = .33$). These suggest that faculty who support teaching or traditional goals are slightly antagonistic to (but mildly supportive of) extension and research goals.

Faculty roles, as with university goals, begin to suggest some conflict in purposes. Faculty members who are supportive to research roles are not so sympathetic with teaching roles, but they do support (though only mildly) extension roles. The correlation coefficients between research, teaching, and extension roles are shown in Table XXXII.

TABLE XXXII
CORRELATION COEFFICIENTS AMONG
FACULTY ROLES

	Teaching Roles	Research Roles
Extension Roles	0.04 ($p < 0.24$)	0.31 ($p < 0.001$)
Teaching Roles		0.12 ($p < 0.20$)

The positive, but not significant correlations suggest that faculty members who are very supportive to teaching roles are not so sympathetic

with both research and extension roles. Those who support research roles are also very supportive to extension roles as shown in the above table.

Summing it up, the roles of highest importance to the Central Luzon State University faculty as a whole, are teaching regular courses, improving teaching skills, and doing research. Roles of lesser importance include advising students, consulting to government, industry, business, and other agencies. Writing for publication, serving on university committees and performing administrative tasks are somewhat less important to the faculty members, but still of great importance.

Faculty Attitudes Toward Research

This section reports the extent of faculty experience in conducting research, and the reasons given by those who report they are unwilling to conduct research. The section then extends the previous discussion of the professional roles and its relationship to research. Next are considered faculty attitudes in four distinct domains: (1) evaluation of the output quality of the RDC program, (2) support of the idea of research, (3) support of the RDC, and (4) the faculty's posture with respect to conducting research as part of their academic responsibility.

Faculty Experience and View of Conducting Research

Of the 163 faculty respondents 43 percent (70 faculty members) report that they have conducted research at the Central Luzon State University. Of those 70 faculty members, all of them report that they would conduct research again if they had the opportunity. Of the 57 percent of the faculty who report that they have not conducted any re-

search, 85 percent (79 faculty members) say that they would do so if given the opportunity.

Faculty Who Have Conducted Research

Table XXXIII shows the percentage of population in each college or unit who have conducted research. Some relationship between experience in conducting research and role orientation is obvious. The faculties reporting the greatest proportions of research experience--Inland Fish-

TABLE XXXIII
EXPERIENCE IN CONDUCTING RESEARCH

Faculty	Percent Reporting Experience in Conducting Research
Agriculture	56
Arts and Science	23
Business Administration	0
Education	0
Engineering	56
Home Science and Industry	0
Inland Fisheries	100
Veterinary Science and Medicine	20
Research and Development Center	93
Student Services	36
Administrators	72

eries, Research and Development Center, Agriculture, and Engineering-- are the same colleges or units with the highest percentages on the "primary faculty interests" (Table XXXI).

It would be a mistake to infer from Table XXXIII what percentages of faculty in the colleges or units are not willing to conduct research, for many factors determine the feasibility of conducting research. Faculty willingness is only one, though of course, a crucial reason for participation. On the otherhand, public demand is essential and physical facilities (e.g., laboratory space, experimental area, and equipment) must be available to the researcher. It appears that there are significant differences among the faculty ranks (including department heads) in experience in conducting research. Thus, for example, assistant and associate professors are likely to have more experience in doing research than the instructors. The numbers at each rank are shown in Table XXXIV.

TABLE XXXIV
RESPONDENTS OF EACH RANK WHO HAVE
CONDUCTED RESEARCH

Rank	Number	Have Conducted Research	Percent
Instructors	118	42	36
Assistant Professors	18	9	50
Associate Professors	2	1	50
Department Heads	25	18	72
Total	163	70	

The data show that faculty at the upper ranks and department heads, perhaps by virtue of their greater years, have conducted, or have more experience in doing research. The reason for academic department difference would seem to lie elsewhere in higher ranking faculty's familiarity with conducting research.

Faculty Who Have Not Conducted Research

Ninety-three of the 163 faculty respondents report that they have not conducted research at the Central Luzon State University. The percentage of faculty in each college or unit reporting no research experience may be deduced from Table XXXIII. It appears that faculties in Business Administration, Education, and Home Science and Industry who reported of no research experience, are the same colleges with the lowest percentages on the "primary faculty interest" (Table XXXI). Presumably, doing research is a more compatible addition to the duties or responsibilities of the research-oriented faculty member than it is to those of the teaching-oriented.

Faculty members who have done research in the Central Luzon State University are unanimous that they are willing to conduct research again if given the opportunity.

Reasons Faculty Will Not Do Research

The 93 faculty who had not conducted research were asked, "Would you conduct research if you had the opportunity?" Eighty-five percent (79 faculty members) said they would; 15 percent (14 faculty) said they would not. Considering the faculty members as a whole, approximately, nine percent of them are not available for conducting research.

Faculty who would not do research if they had the opportunity were asked to indicate the importance on a four-point scale of various possible reasons for their answer. Table XXXV shows the mean responses for the total sample.

It is interesting to note that few faculty give any weight to not believing in the idea of conducting research as a reason for unwillingness to do research. Of the 14 faculty members who said they would not conduct research though they had the opportunity to do, four give the statement "I do not believe in the idea of doing research" a score of 1 (of no importance) and the rest a score of 2.0 (of low importance), indicating that, on the average, they place low importance on that reason. Some faculty members tend slightly to give stronger emphasis to, "I do not believe in the idea of doing research than others do. The tendency is, of course, compatible with the inclination of these faculty members not to believe in research functions generally.

Some respondents do not report the level of remuneration as being a strong reason they are unwilling to conduct research. For few faculty members, that is a strong reason; presumably, if remuneration were higher, their answers to the question would be different. For at least five faculty members, however, higher compensation would apparently not change their minds much. Other factors make them not willing to do research.

"Conducting research is not recognize for promotion or tenure in my department" is a reason with the same mean score as the "the remuneration is low" (2.9), being closer to "of medium importance" than to "of lower importance." The faculty members who answer they are not willing to conduct research do vary slightly in their responses to "not being recognized for promotion or tenure" although three of them give this rea-

TABLE XXXV
REASONS FACULTY GIVE FOR THEIR UNWILLINGNESS
TO CONDUCT RESEARCH

Rank	Reason	Mean Score
1	I am too busy	3.6
2	Remuneration is low	2.9
2	Conducting research is not recognized for promotion or tenure in my department	2.9
3	Doing research would cause an imbalance in my total academic responsibilities	2.7
4	Conducting research involves weekends	2.3
5	My department actively discourages doing research	1.9
6	I do not believe in the idea of conducting research	1.7

son of high importance than others do. By considerable margin, the most important reason faculty give for being not willing to do research is that they are too busy. Eight respondents consider this reason as "of high importance," and the other six think it as "of medium importance."

Being too busy is, of course, a matter of values that faculty place upon commitments of their time and energy. Being "too busy" to do research may more accurately mean "I have important tasks to perform which are related to my professional responsibility, and therefore, yield profitable return on my effort." This is evident to faculty members who perform professional consulting work outside the university.

Professional Incentive for Conducting Research

The research-oriented faculty member is apparently judged on evidence of his academic achievement (e.g., research and publication), and presumably prefers it. Possibly, teaching is the least important criterion in his department in promotion, tenure, and salary decisions. The risk for him is that doing research will keep him from his basic academic obligations.

The teaching-oriented faculty member, who presumably tends to be associated with departments and faculties who emphasize teaching in promotion criteria, would perhaps conduct research, and sees in it the same reward of payoff that the research-oriented faculty member sees. Both reward systems encompasses or encourages conducting research. Faculty members high on both research-and teaching-orientations conduct research, conducting research has professional value for them. Other faculty members high on both orientations do not conduct research, and in this case, the university is denied faculty members who might otherwise willingly serve.

Competing Demands on the Faculty Member's Time and Commitment

The extensiveness of a research-oriented values among the faculties as has been suggested in this chapter has the point that research orientation tends to be slightly associated with support of teaching-type university goals. Tables XXX and XXXI in this chapter reveal the importance that faculty put on research and publication--values which orient the faculty member away from teaching.

In addition to the basic incompatibility of doing research with

many faculty roles, the practical demands on faculty time and energy make conducting research impossible or difficult for practical reasons. In GLSU, it is not uncommon to hear that faculty spend 40 hours per week on the average, in instruction and instruction-related activities, and a total of 60 hours per week, on the average, in all university-related efforts.

In addition to their teaching, extension work, and advising, faculty are expected to serve on committees, both for their departments and for the university community, and to perform some departmental administrative tasks. Though these tasks may have low importance for the faculty member individually (as shown in Table XXVIII), they are often semi-obligatory. As forms of service to the institution, administrative and committee work have to be assigned to the faculty members.

In some faculties, particularly in the Veterinary Science and Medicine, consulting is also a semi-obligatory function of the professional. Table XXXVI shows, by college or unit, the percentage of faculty who report consulting activity averaging more than 10 hours per semester.

Consulting work would seem to affect the supply of faculty available to conduct research. It is probably more than coincidence that the faculty group reporting the largest amount of consulting activity (Veterinary Science and Medicine) also feels most strongly that the remuneration for doing research is too low (Table XXXV). It may be inferred that they are especially too low in comparison to consulting fees. As university goals, consulting and advising are rated of greater importance (Table XXVIII). It is understandable then, that many faculty members choose the endeavor which pays more or find themselves "too busy" to conduct research.

TABLE XXXVI
 PERCENTAGES OF FACULTY REPORTING CONSULTING ACTIVITY
 OF MORE THAN 10 HOURS PER SEMESTER

Faculty	Percentage
Agriculture	32
Arts and Sciences	19
Business Administration	0
Education	30
Engineering	11
Home Science and Industry	0
Inland Fisheries	25
Veterinary Science and Medicine	40
Research and Development Center	20
Student Services	18
Administrators	52

Research's Appeal to Faculty

It is often thought that without research a university should not exist. To ascertain the strength of research's appeal to the faculty members, respondents were asked how they consider themselves most significantly to be fulfilling their services obligation to the university aside from teaching. The result appear in Table XXXVII.

Several features of the responses are noteworthy. In the first place virually all faculty believe that they do have a service obligation. It

TABLE XXXVII

HOW FACULTY REPORT THEY MOST SIGNIFICANTLY
FULFILL THEIR SERVICE OBLIGATION

Faculty	Committee Work	Consulting	Speaking	Extension Work	Research, Teaching and Publishing	Others	No Service Obligation
Agriculture	15	15	12	12	42	4	-
Arts and Sciences	30	15	7	7	33		4
Business Administration	80	-	-	-	20	-	-
Education	22	9	9	35	22	4	-
Engineering	22	11	11	11	33	11	-
Home Science and Industry	57	-	14	14	-	14	-
Inland Fisheries	25	-	-	-	75	-	-
Veterinary Science and Medicine	-	20	-	60	20	-	-
Research and Development Center	13	-	7	20	60	-	-
Student Services	27	9	9	36	9	9	-
Administrators	24	8	12	16	36	4	-

appears that faculties in Inland Fisheries, and Research and Development Center, who are very active in conducting research, think of research as the most significant means of fulfilling their service obligation. By far, the strongest conception of a service obligation is one that lets

the faculty members do what he was hired to do--research, extension work and regular teaching.

This conception of a service function compliments the findings of high positive correlation between extension goals and research functions. That is, faculty feel that Central Luzon State University ought to be socially oriented, so long as that orientation is compatible with the research purposes of the institution.

Research's appeal to the faculty's commitment to service is strong. It not only find acceptance in those faculties that emphasize research and extension but to those who emphasize teaching regular courses as well. The appeal in Home Science and Industry faculty is weak but within the university generally research as service carries professional or official sanction and enjoys discipline-group-refinement.

In sum, research seems to have great claim on faculty attention. Although it competes with numerous other demands for the faculty member's time, still, it has virtually professional value for them. It generally has higher endorsement than some other extra assignments (e.g., consulting).

Faculty Endorsement of Four Facets of Research

The seven attitude statements with which respondents were asked to indicate their agreement reflect faculty opinions of various facets of research at Central Luzon State University. Those opinions will be considered in four main categories: (1) faculty perception of the quality of output of the RDC, (2) the faculty endorsement of the RDC, (3) the strength of faculty's potential professional identification with doing research, and (4) faculty support of the idea of research.

Respondents' strength of agreement with the seven attitude statements was measured on a five-point scale:

- 5 strongly agree
- 4 agree
- 3 disagree
- 2 strongly disagree
- 1 insufficient information

Scores in the following discussion refer to mean scores on the four-point scale and do not include respondents to category 1 (insufficient information). Since some number of respondents checked item 1 for each statement, the numbers who checked categories two through five are provided (e.g., N = 155).

Two tables provide information about responses to each statement. Table XXXVIII shows the mean strength of agreement for the faculty as a whole, and the statistical significance of differences in agreement among the faculties and the ranks and between the sexes. Table XXXIX shows the range in agreement with each statement among the various faculties. In addition, Table XL, shows the mean agreement with each statement with each faculty.

Faculty Assessment of the Quality of Output of the Research and Development Center

From Table XXXVIII two items were selected to measure the faculty assessment of the quality of output of the Research and Development Center. The two items are: Item 34 - "The quality of output of the RDC is comparable to that of other research institutions," and Item 38 - "The research programs of the RDC is equally recognized with that of other

TABLE XXXVIII
 TOTAL SAMPLE MEANS OF ATTITUDE RESPONSES AND
 SIGNIFICANCE LEVELS OF ANALYSIS OF
 VARIANCE BY FACULTY,
 RANK AND SEX

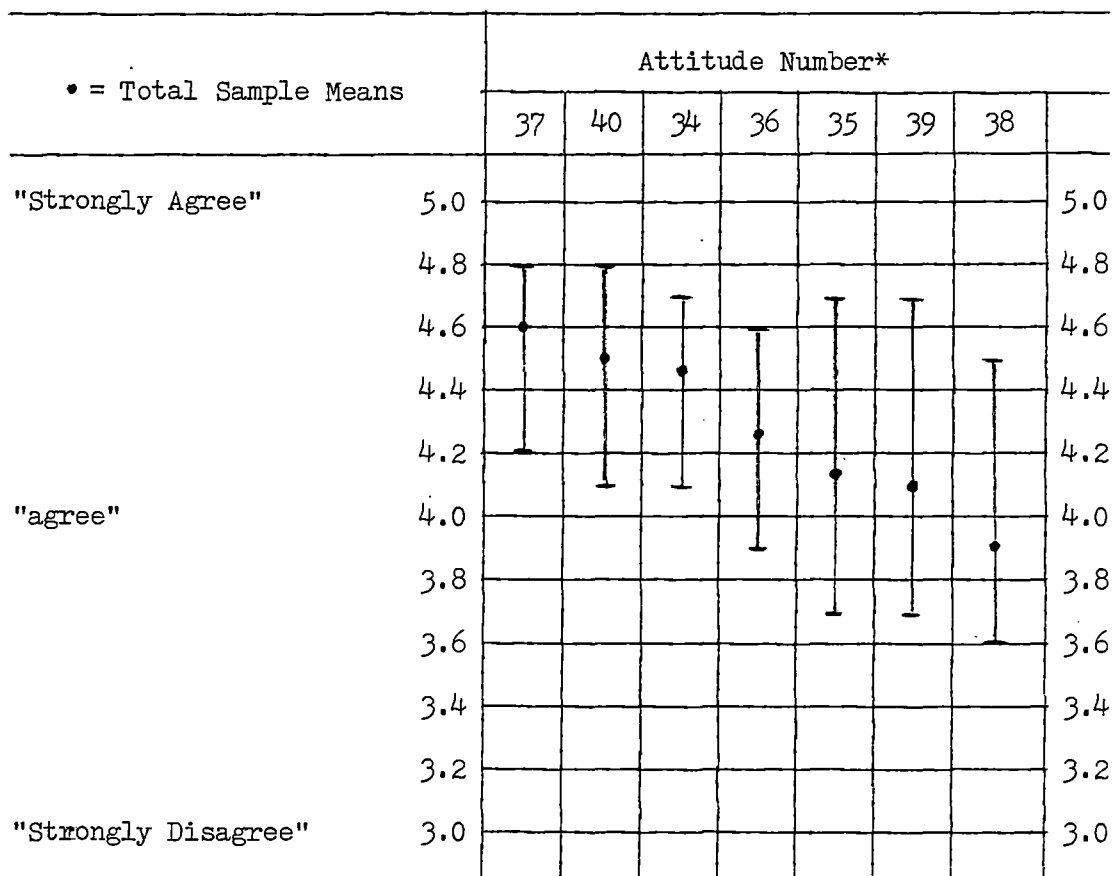
Mean	Attitude	<u>Significance Level</u>		
		Faculty Effect	Rank Effect	Sex Effect
4.3	The quality of output of the RDC is comparable to that of other Research Institutions.	ns	.05	.05
4.2	I derive as much satisfaction from teaching as I do conducting research.	ns	.01	ns
4.2	The Research and Development Center is fulfilling its mission.	ns	ns	.05
4.6	The university ought to be as committed to the research staff as it is to the teaching staff.	ns	ns	.05
3.8	The research programs of the Research and Development Center is equally recognized with that of other research institutions' programs.	ns	ns	ns
4.1	I would be willing to conduct research in lieu of other courses as part of my regular duties.			
4.5	The Research and Development Center should be given additional funds to carry out its mission.	ns	ns	ns

ns - not significant

research institutions' programs. The mean score of all respondents considered together is 4.1. Since a score of 4.0 indicates "agreement,"

TABLE XXXIX

MEAN IMPORTANCE OF SEVEN RESEARCH ATTITUDE
RESPONSES: RANGE OF MEANS OF FACULTIES



- * 37 The university ought to be as committed to the research staff as it is to the teaching staff.
- 40 The Research and Development Center should be given additional funds to carry out its mission.
- 34 The quality of output of the RDC is comparable to that of other research institutions.
- 36 The Research and Development Center is fulfilling its mission.
- 35 I derive as much satisfaction from teaching regular courses as I do conducting research.
- 39 I would be willing to conduct research in lieu of other courses as part of my regular responsibilities.
- 38 The research programs of the Research and Development Center is equally recognized with that of other research institutions' programs.

TABLE XL
 MEAN AGREEMENT OF SEVEN RESEARCH ATTITUDE
 RESPONSES BY FACULTY

Attitude	Agriculture	Arts and Sciences	Business Administration	Education	Engineering	Home Science and Industry	Inland Fisheries	Vet. Science & Medicine	RDC	Student Services
The quality of output of the RDC is comparable to that of other research institutions.	4.2	4.2	4.5	4.1	4.3	4.7	4.6	4.2	4.4	4.3
I derive as much satisfaction from teaching as I do conducting research.	4.1	4.7	4.0	4.2	4.0	4.5	4.0	3.7	3.9	4.4
The RDC is fulfilling its mission.	3.9	4.2	4.0	4.1	4.4	4.3	4.6	4.3	4.3	4.4
The university ought to be as committed to research staff as it is to the teaching staff.	4.6	4.8	4.8	4.6	4.2	4.7	4.7	4.4	4.7	4.6
The research programs of the RDC is equally recognized with that of other research institutions' programs.	3.7	3.6	4.5	3.7	3.8	3.7	3.7	4.3	4.2	4.1
I would be willing to conduct research in lieu of other courses as part of my regular duties.	4.1	4.1	4.5	4.0	3.9	3.7	4.2	4.7	4.4	3.8
The RDC should be given additional fund to carry out its mission.	4.5	4.6	4.2	4.4	4.6	4.1	4.4	4.7	4.6	4.8

faculty support of the quality of output of the RDC can be considered high. There is no substantial difference in support among the academic ranks, or by sex. The strength of each faculty's average agreement with these items is shown in Table XLI.

TABLE XLI
RANKING OF SUPPORT FOR OUTPUT QUALITY OF THE
RESEARCH AND DEVELOPMENT CENTER

Rank	Faculty	Mean*
1	Business Administration	4.50
2	Research and Development Center	4.31
3	Veterinary Science and Medicine	4.27
4	Student Services	4.17
5	Inland Fisheries	4.15
6	Home Science and Industry	4.14
7	Engineering	4.05
8	Agriculture	3.94
9	Arts and Sciences	3.93
10	Education	3.91
5 = strongly agree		
4 = agree		
3 = disagree		

* The computation of means excludes entirely any respondent who indicated a "1" for any of the two items.

It is perhaps significant that more respondents have indicated they had insufficient information to respond to these items than is true of response to any other items.

The perception of the output quality of the RDC is related strongly to one's role orientation, and, moderately to strongly, to whether one has conducted research, or would conduct research if given the opportunity. Table XLIII shows the correlation coefficients in this regard.

Those who are research-oriented are more inclined to rate the quality of output of research programs higher than those who are teaching-oriented. It seems that basic role orientation has a stronger impact on the rating a faculty member gives research output quality. Research-oriented faculty believe more in research goals and less in teaching goals than teaching-oriented faculty do. Thus, one may speculate that research-oriented faculty are more likely to agree with the output qua-

TABLE XLIII
CORRELATIONS BETWEEN BELIEF IN RESEARCH'S OUTPUT
QUALITY AND ROLE ORIENTATION, EXPERIENCE
IN CONDUCTING RESEARCH AND WILLING-
NESS TO CONDUCT RESEARCH

	Teaching Orienta- tion	Research Orienta- tion	Have Conducted Research	Would Conduct Research	Would not Conduct Research
Support of Research's Quality Output	.19	.50	.23	.12	.20
Significance Level	ns	.01	.05	ns	ns

lity of the RDC. In addition, research-oriented faculty, for reasons of their professional role priorities, are more likely to have conducted research and, thereby, to have had their opinions hardened by first-hand experience.

Teaching-oriented faculty, on the otherhand, are less supportive of research goals and are likely to have not conducted research, gained no sympathy with the research program as a result, and therefore rate the quality of output of the RDC lower.

In support of the idea that conducting research has at least some impact on positive faculty rating of research output quality, it should be noted, Table XLI, that mere willingness to conduct research is not correlated with ratings of research output quality, whereas actual research experience is, suggesting that the experience has a positive effect. Specifically, the mean score of faculty on the item (34) "the quality of output of the RDC is comparable to that of other research institutions," is different according to whether respondents have or have not conducted research. Those who have conducted research have a mean score of 4.5, midpoint of "agree" and "strongly agree;" those who have not between "disagree" and "agree" and have a mean score of 3.7.

Average support of the research output quality as measured by items 34 and 38, can not be said to be qualified or uniform. On the otherhand, it is not rated low (Table XLI). A more concrete picture of faculty rating of research's output quality may be seen in Table XLIII. Ninety-three percent of the faculty respondents agree on the quality of output of the RDC (Item 34).

On the otherhand, majority of the faculty feel that the programs of the RDC is equally recognized with that of the programs of other research

TABLE XLIII

PERCENT AGREEMENT AND DISAGREEMENT WITH INDIVIDUAL
ITEMS COMPRISING THE TWO ITEMS ON
RESEARCH OUTPUT QUALITY

Item No.	Item	N	Disagreement		Total Disagreement	Agreement		Total Agreement
			2	3		4	5	
34	The quality of output of the CLSU Research and Development Center is comparable to that of other research institutions.	140	1%	6%	7%	58%	35%	93%
38	The research programs of the CLSU Research and Development Center is equally recognized with that of other research institutions' programs.	150	5%	29%	34%	45%	21%	66%
	2 = strongly disagree							
	3 = disagree							
	4 = agree							
	5 = strongly agree							

institutions. In general, research-oriented faculty rate the two aspects of output quality higher than teaching-oriented faculty do.

Faculty Support of the Research and
Development Center

The second facet of faculty attitude toward research is a measure of faculty endorsement of the RDC. This consists of two items as shown in Table XLIV.

TABLE XLIV
SUPPORT OF THE RESEARCH AND
DEVELOPMENT CENTER

Item No.	Item	Mean
36	The Research and Development Center is fulfilling its mission	4.2
40	The Research and Development Center should be given additional funds to carry out its mission	4.5

The two items in Table XLIV summarize faculty support for the RDC. These items contain somewhat two disparate aspects; an evaluation of the performance of the RDC and the endorsement for funding which potentially competitive with other university funding requests. For all respondents expressing agreement or disagreement, the mean score on the

support of Research and Development Center is 4.4, indicating support slightly above "agree." Table XLV shows the rank order of the scores of the 10 faculties on the two items combined. The Student Services faculty is most supportive of Research and Development Center, and the faculty in the College of Business Administration is least supportive.

TABLE XLV
RANKING OF THE FACULTIES IN SUPPORT OF RESEARCH
AND DEVELOPMENT CENTER (N = 157)*

Rank Order	Faculty	Mean
1	Student Services	4.6
2	Engineering	4.5
2	Veterinary Science and Medicine	4.5
2	Inland Fisheries	4.5
3	Research and Development Center	4.4
3	Arts and Sciences	4.4
4	Education	4.3
5	Home Science and Industry	4.2
5	Agriculture	4.2
6	Business Administration	4.1

5 = strongly agree

4 = agree

3 = disagree

* The computation of means excludes entirely any respondent who indicated a "1" for any of the two items.

It is perhaps more meaningful to consider the support of RDC in the faculty as a whole, apart from their collegiate homes, and as explained by basic role orientations. The relationships of role orientations are shown in Table XLVI.

TABLE XLVI
SUPPORT OF RESEARCH AND DEVELOPMENT CENTER AND
FACULTY ROLE ORIENTATION, EXPERIENCE
IN CONDUCTING RESEARCH AND WILL-
INGNESS TO CONDUCT RESEARCH

Item	Teaching Orient- ation	Research Orient- ation	Have Conducted Research	Would Conduct Research	Would Not Conduct Research
Support of Research and Development Center	.18	.38	.28	.29	.16
Level of Significance	ns	.01	.05	.05	.10

Table XLVII shows percentages of faculty responses in each category of agreement and disagreement. The percentages of agreement with the two statements show substantial endorsement of the Research and Development Center, more than is shown by a mean score for the two items.

Finally, it is noteworthy that 98 percent of the faculty agree that Research and Development Center ought to be given additional funds to carry out its mission. That appears to be another indication of endorsement of the job that RDC is doing.

TABLE XLVII

PERCENT AGREEMENT AND DISAGREEMENT WITH INDIVIDUAL
ITEMS COMPRISING THE TWO ITEMS ON SUPPORT
OF RESEARCH AND DEVELOPMENT CENTER

Item No.	Item	N	Disagreement		Total Disagreement	Agreement		Total Agreement
			2	3		4	5	
36	The Central Luzon State University Research and Development Center is fulfilling its mission.	157	1%	7%	8%	61%	31%	92%
40	The Central Luzon State University Research and Development Center should be given additional funds to carry out its mission.	159	0%	2%	2%	42%	56%	98%

2 = strongly disagree

3 = disagree

4 = agree

5 = strongly agree

The Professional Identification of Faculty
with Conducting Research

Two questions were asked which attempt to assess respondents' ability to conceive of conducting research as a part of their basic role. The two items on the third factor are shown in Table XLVIII.

TABLE XLVIII
 PROFESSIONAL IDENTIFICATION

Item No.	Item	Mean
35	I derive as much satisfaction from teaching as I do conducting research	4.2
39	I would be willing to conduct research in lieu of other courses as part of my regular teaching responsibilities	4.1

There is no significant difference among the 10 faculties in the strength of their "professional identification" with conducting research ($p < .52$). The mean score of all respondents considered together is 4.1, indicating "agreement." The closeness of the faculties to that mean, and the rank order of their endorsement is shown in Table XLIX.

The Arts and Sciences, and Business Administration faculties, with heavy teaching orientations, appear to be most supportive of conducting research in lieu of other courses as part of their regular teaching res-

TABLE XLIX
 RANKING OF THE FACULTIES IN ORDER OF THE STRENGTH
 OF THEIR PROFESSIONAL IDENTIFICATION
 WITH RESEARCH (N = 150)

Rank Order	Faculty	Mean
1	Arts and Sciences	4.3
2	Business Administration	4.2
2	Veterinary Science and Medicine	4.2
2	Research and Development Center	4.2
3	Home Science and Industry	4.1
3	Inland Fisheries	4.1
3	Student Services	4.1
3	Agriculture	4.1
3	Education	4.1
4	Engineering	4.0
	5 = strongly agree	
	4 = agree	
	3 = disagree	
	2 = strongly disagree	

responsibilities, and deriving as much satisfaction from teaching as conducting research. Faculty in Engineering are least supportive.

The correspondence between support of these two items and the faculty orientations is borne in Table L. No matter what facet of research is measured, support is to some extent a function of faculty's

TABLE L
CORRELATIONS BETWEEN PROFESSIONAL IDENTIFICATION
WITH RESEARCH AND ROLE ORIENTATION, CON-
DUCTING RESEARCH AND WILLINGNESS
TO CONDUCT RESEARCH

Item	Teaching Orien- tation	Research Orien- tation	Have Conducted Research	Would Conduct Research	Would Not Conduct Research
Professional Identification	.32	.40	.39	.25	.24
Significance Level	.05	.01	.01	.05	ns

role orientation. Research-oriented faculty tend to be essentially supportive of all facets of research while the teaching-oriented faculty tend to be less supportive.

Table LI shows the percentages of total faculty responses in each category of agreement with each of the two items in the Professional Identification. There is a substantial endorsement of the idea of conducting research. The faculty in Engineering, however, has a mean score of 4.0 ("agree").

Eighty-four percent of the faculty say they would be willing to conduct research in lieu of other courses as part of their regular assignment. This response is only slightly correlated with role orientation. It is correlated with willingness ($r = .41$) to conduct research and unwillingness ($r = -.38$), suggesting that some faculty who expressed unwillingness to add conducting research to their responsibilities may be willing to make it a part of their roles.

TABLE LI
 PERCENT AGREEMENT AND DISAGREEMENT WITH INDIVIDUAL
 ITEMS COMPRISING THE TWO ITEMS ON
 PROFESSIONAL IDENTIFICATION

Item No.	Item	N	Disagreement		Total Disagreement	Agreement		Total Agreement
			2	3		4	5	
35	I derive as much satisfaction from teaching as I do conducting research.	153	1%	16%	17%	49%	34%	83%
39	I would be willing to conduct research in lieu of other courses as part of my regular responsibilities.	150	3%	13%	16%	57%	27%	84%

2 = strongly disagree

3 = disagree

4 = agree

5 = strongly agree

Eighty-three percent of the faculty agree with statement "I do derive as much satisfaction from teaching as I do conducting research," which suggests that, to the extent that faculty take their recognition and satisfaction from teaching as they do conducting research, a sizeable majority would be as professionally satisfied in conducting research as in teaching regular courses. That fact would seem to be a major consideration in discussion of incorporating conducting research into the regular responsibilities of faculty members.

In short, according to the support shown for the items in Personal Identification, most faculty seem supportive of the idea of conducting research, under present arrangements or with the responsibility made part of their basic assignments.

Faculty Agreement with the Idea of Research

Faculty agreement with research functions has already been discussed earlier in this chapter. Overall, the mean score of agreement was 4.4, indicating agreement between "agree" and "strongly agree." Strongest agreement of research functions was shown for the function "Identify problems occurring in the social, economic, and cultural lives of the people," which 86 percent of the faculty show "agreement" or "strong agreement."

It only remains to add to that consideration of faculty agreement with research function, the responses of faculty to an attitude statement (Item 37) written to elicit a comparison of faculty agreement: "The university ought to be as committed to the research staff as it is to the teaching staff."

The mean score of agreement of that statement (five-point scale)

is 4.6, indicating agreement somewhat closer to strongly agree. Table LIII shows the percentages of faculty responses to each category of agreement.

Ninety-six percent of the faculty agree that CLSU ought to balance its commitment to the research and teaching staff. That is a substantial degree of support, considering the emphasis faculty put in both university purposes and faculty roles on the conducting of research.

In sum, faculty who will not conduct research give as their reason that they are too busy, suggesting that they are not adverse to the idea of doing research.

Conducting research, however, has status in the professional reference group reward structure, so must be added on to various professional responsibilities for which a faculty member does receive recognition.

Faculty role-orientation--research or the teaching orientation--is the most consistent determinant of faculty relationships to conducting research. They are correlated significantly with whether faculty have conducted research, and whether those faculty who have not, are willing to conduct research. They are similarly correlated with faculty belief in research output quality, support of the RDC, faculty's professional interest in research, and faculty belief in the idea of research. However, while significant, the correlations are somewhat modest, suggesting that the orientations used in this study should be thought of as tendencies, not definitive differences.

As a whole, there is substantial faculty endorsement of several aspects of research, particularly the performance of the RDC. Furthermore, faculty endorsement of research functions is strong, a majority of faculty believe that the university must balance its commitment to the re-

TABLE LII
 PERCENT AGREEMENT AND DISAGREEMENT WITH
 THE ITEM ON THE IDEA OF RESEARCH

Item No.	Item	N	Disagreement		Total Disagreement	Agreement		Total Agreement
			2	3		4	5	
37	The university ought to be as committed to the research staff as it is to the teaching staff.	159	0%	4%	4%	31%	65%	96%
2	= strongly disagree							
3	= disagree							
4	= agree							
5	= strongly agree							

search and teaching staff, and faculty are themselves willing to conduct research in lieu of other courses as part of their regular assignments.

CHAPTER V

SUMMARY, FINDINGS, AND RECOMMENDATIONS

The final chapter of this study briefly summarizes the purposes and design of the research, then enumerates its findings. Next some recommendations are suggested.

Summary

In this section of the chapter, the purposes and design of the research are briefly reviewed.

Purposes of the Research

The investigation was undertaken to determine the agreement of the faculty of the Central Luzon State University toward research (both concept and practice) and to reveal the relationship of this agreement to the faculty's roles, values, and interests. Specifically, the information sought has been (1) the basic functions of research and the major university goals that faculty believe most important for CLSU to pursue; (2) the academic responsibilities and interests most important to the faculty including the sources of recognition and stimulation they value most; and (3) the faculty attitudes toward research.

Design of the Study

Stratified random samples of full-time faculty (rank of instructor

and above) plus department chairpersons in 10 collegiate units in the Central Luzon State University were drawn. The 10 collegiate units represent at least 11 broad discipline areas: agriculture, engineering, business, education, social sciences, humanities, biological sciences, fisheries, veterinary science, home science, and physical sciences. A pretested 40-item questionnaire (Appendix B, page 114) was sent to 179 faculty members in the school year 1984-85. The response rate was 91 percent; usable N = 163. Results were analyzed with the programs of the Statistical Analysis Softwares for the Social Sciences, using the investigator's Apple IIc computer.

Findings

Among the three major function emphases (traditional or teaching, research, and extension), traditional functions have the strongest agreement among the university faculty. The traditional functions emphasis encompasses broad and liberal education, chosen occupation, and responsibilities of citizenship. Broad and liberal education as a university function was found to have surprising agreement. Eighty-three percent of the respondents rating it "strongly agree."

There is little differences among the 10 faculties in the agreement they place upon these functions for the university. Even the research-oriented faculties show strong agreement to the importance of chosen occupation as a university function and the 10 university units emphasize broad and liberal education, and responsibilities of citizenship as university purposes.

A second and slightly less important institutional orientation is toward social service orientation, in which social problem identifica-

tion and problem solving are strongly associated with one another. The mean score is 4.4, which is between "agree" and "strongly agree" for all faculty respondents considered together. This mean score indicates that the 10 faculties consider those functions to be important but slightly less importance than traditional functions.

The third orientation identified by the present study is the extension-type function. With this orientation both research and teaching are associated and as a whole, the faculty rate extension-type goals slightly closer to "agree" with a mean score of 4.2. In contrast to the support given to traditional and research functions by senior faculty, lower-ranking faculty (48 percent) emphasize extension-type goals more strongly than senior faculty (45 percent) do.

These functions reveal somewhat distinct but compatible orientations identified above in their order of priority. Faculty do support extension, but they do not give it the importance they give to research and teaching purposes. A research emphasis coincides with a relatively lower valuation of extension goals. A research emphasis is negatively associated with teaching generally.

It can not be concluded, however, that Central Luzon State University faculty think extension and research are less important to the university, since they tend to rate them between "agree" and "strongly agree." It is only that extension and research goals rank relatively lower than the teaching functions.

One reason research purposes are not rated higher may be the lack of familiarity of a large number of faculty with the research program: (1) the majority of faculty (57 percent) have not conducted any research, and (2) since conducting research is not a part of a faculty

member's regular responsibilities, it could not be expected to rate as important as those purposes which the faculty is hired initially to fulfill.

As a whole, though relatively lower in priority, research seems a responsibility the faculty believe appropriate to the university.

Faculty Role Emphasis

The roles that faculty rate as most important reflect professional commitment to fulfilling the goals they believe the institution ought to emphasize: research, improving teaching skills, and a strong emphasis on teaching regular courses. However, two distinct orientations, called cosmopolitanism and the teaching orientation, were found to differentiate faculty. "Cosmopolitans" are identified as those who, in the fulfillment of their professional lives, place greatest emphasis upon research, publication and teaching, and receive their most gratifying recognition from fellow scholars outside the university.

Teaching-oriented faculty were identified as those who place greatest emphasis upon teaching and upon improving their teaching skills. They place less emphasis on research and publication and find students their most gratifying source of recognition.

Cosmopolitanism is positively correlated with both traditional and research function emphases and negatively associated with extension goals. Conversely, the teaching orientation is associated positively with extension goals and negatively with research goal emphasis.

Research

Among all faculty surveyed, 43 percent (70 faculty members) report

that they have research experience. That experience, as well as willingness to conduct research, was found to vary considerably by college faculties and to be positively correlated with cosmopolitanism. Lack of experience in conducting research, as well as unwillingness to conduct research was found to be positively correlated with the teaching orientation.

Faculty who have not conducted research, tend to be cosmopolitan oriented, most commonly give "too busy" as the strongest reason for their unwillingness to conduct research. The second-most important reason is that conducting research would cause an imbalance in their academic responsibilities. The strength of those first two reasons for unwillingness to conduct research seem to indicate that the unimportance of research in the university results from its not being a regular faculty responsibility.

To the teaching-oriented, lack of recognition in tenure and promotion is more strongly a reason for not conducting research than it is for cosmopolitan. Presumably, the teaching oriented who have not conducted research would do so if there were some recognition towards their professional advancement. The cosmopolitans will add conducting research to their regular responsibilities seemingly because it is the roles that are most important to them.

Research as service obligation is real inducement to faculties. It is even more so to cosmopolitans than to the teaching oriented. The most common form of service was found to be doing one's job well, a more prevalent reason among the more-cosmopolitan faculty than among the more teaching-oriented faculty. Regarding attitudes toward various aspects of research faculty are generally supportive of the performance of the

CLSU research unit, and of equivalent funding for the unit. The faculty were found to be somewhat critical of the quality of output of the research unit, while demonstrating support for the program of the unit. Eighty percent agree or strongly agree that the research unit is fulfilling its mission.

Despite concern about the quality of output of the research unit, faculty show substantial ability to identify professionally with conducting research, 83 percent agreeing or strongly agreeing that they derive as much satisfaction from conducting research as from teaching regular courses, and 84 percent (from "agree" to "strongly agree") agreeing they would be willing to conduct research in lieu of other courses as part of their regular duties.

There are different levels of support, and from different quarters of the faculty, for different facets of research--the purpose of research, the research unit itself, output quality, and conducting research as a professional responsibility. Some differences are found among the 10 faculty groups studied; some differences are found among the ranks and between the sexes. Role orientation, however, delineates differences in support most sharply.

The cosmopolitan-oriented faculty tend to be substantially more supportive of each of the four facets of research studied than are the teaching-oriented faculty. Similarly, cosmopolitans have had more research experience. Majority of the teaching-oriented who have not experience in conducting research are willing to do so if given the opportunity.

Faculty members who have done research in CLSU are unanimous that they are willing to conduct research again if given the opportunity.

Recommendations

1. The investigator proposes that gradual additions of faculty members be done in the various departments. Then on voluntary basis let faculty members conduct research in lieu of some other courses as part of their regular responsibilities.

2. A means of evaluating the regularizing of conducting research should be devised. A committee which composed of faculty members representing all ranks should monitor the responsiveness, sufficiency and problems of the research program, and quality and appropriateness of the research for the community and the university.

3. Research and Development Center should be expected to continue its coordination of research programs. Funds to cover the costs of regularized research conducting should flow through Research and Development Center to the academic units.

4. In cooperation with other university units, Research and Development Center and a faculty steering committee, should examine the quality of output of the Center to determine whether higher quality control is indeed in order and, if so, what measures are most appropriate.

5. Research and Development Center should, as funding allows, emphasize in the ensuing years, relevant research programming which complements the programming of the other university units. Research and Development Center and academic units regularizing conducting research should set as a goal substantial increases in opportunities of academic recognition through research.

6. As departments take on conducting research as part of their professional responsibilities, Research and Development Center can expect its policy to come under some scrutiny, especially from the tradi-

tional-oriented faculty. Research and Development Center may need to be ready to demonstrate the overall efficacy of such a policy.

7. Research and Development Center should launch a vigorous re-search program in student learning theory, educational needs and program-ming. In addition, the Center should consider sponsoring research projects to be undertaken both by academic departments, and by individual researchers--faculty as well as graduate students.

Conclusion

The presumption of this research is that the most crucial party in making research a more central commitment of the Central Luzon State University is the faculty. If they are not willing that research become a more central purpose of the university, then administrative efforts would seem to count for little. If faculty are willing to devote professional attention to conducting research, then they need to rely on the administration to facilitate the transition and to provide funding for the commitment.

The results of the present study lead the investigator to the conclusion that on the whole, the faculty of the Central Luzon State University are willing to conduct research as part of their regular responsibilities.

Recommendation for Further Research

1. If the above recommendations were implemented, a valuable future study would compare faculty attitudes several years into the implementation of the proposal with those revealed in the present study. Shifts in the correlates of cosmopolitanism/teaching orientations, and changes

in the strength of faculty support of research function and assessment of output quality should be examined.

2. Studies comparing the programming of Research and Development Center with those of other research institutions would aid the discussion of the quality of research programming and Research and Development Center's policy.

3. Such a study as the present one might be replicated in other institutions both similar and dissimilar to the Central Luzon State University. Findings that the support of research is stronger than the programs indicate, might help to bring those institutions closer to their potential for serving the community and the university.

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APPENDIX A

COVER LETTER

Republic of the Philippines
CENTRAL LUZON STATE UNIVERSITY
Munoz, Nueva Ecija

September 6, 1984

Dear _____ :

The Office of the Presidential Assistant for Internal Development is in the process of conducting a survey on the Research Profile and Research Capabilities of Central Luzon State University Faculty, with the end view of determining the strength of the University in the field of research among its faculty.

Your answer to this survey questionnaire will be kept confidential, so please answer all the items honestly and sincerely.

May we have the duly-accomplished questionnaire on or before September 30, 1984.

Your spontaneous cooperation in this endeavor is very much appreciated.

Thank you.

Very truly yours,

(Sgd.) CEZAR G. SALAS, Sr.
Presidential Assistant for Internal
Development

APPENDIX B

QUESTIONNAIRE

I. UNIVERSITY RESEARCH FUNCTIONS AND UNIVERSITY GOALS:

Listed below are research functions and university goals that may be attributed to a university. Indicate, by checking in the appropriate blank, your agreement or disagreement of each function or goal for Central Luzon State University.

A. Four basic functions of research in the Central Luzon State University:	Strongly Agree	Agree	Un-decided	Dis-agree	Strongly Disagree
1. To identify problems occurring in the social, economic, and cultural lives of the people of the country.	_____	_____	_____	_____	_____
2. To provide answers to operational questions confronting the social, economic, and cultural lives of the people of the country.	_____	_____	_____	_____	_____
3. To evaluate educational programs, practices and materials used in the schools, and to provide new ideas and guidance.	_____	_____	_____	_____	_____
4. To build a body of information and develop valid theory about the educational processes and enterprise.	_____	_____	_____	_____	_____
B. Four major goals to be achieved by Central Luzon State University:					
5. To provide students with a broad liberal education. Prepare them for their chosen occupation.	_____	_____	_____	_____	_____
6. To assist citizens directly through extension programs, workshops, and short courses.	_____	_____	_____	_____	_____
7. To provide retraining for those whose job skills are no longer marketable and provide education for part time students and adults.	_____	_____	_____	_____	_____

Strongly Agree Agree Un-decided Dis-agree Strongly Disagree

8. To provide students with a sense of commitment to the responsibilities of citizenship.

II. PROFESSIONAL RESPONSIBILITIES:

A. Please check the degree to which you agree with the following statements:

Very Good Good Undecided Low Very Low

9. At present my own willingness to teach courses which include research methods is

10. At present my willingness to engage in conducting research in the discipline in which I teach is

B. How important do you regard each of the following to be in contributing to the fulfillment of your academic life? Please check the degree to which you agree with the following statements:

Highest Importance Great Importance Medium Importance Little Importance Not Important

11. Teaching regular courses

12. Improving teaching skills

13. Advising students

14. Doing research

15. Serving on committees

16. Writing for publication

17. Consulting to government, industry, business and other agencies

C. Please answer the following questions:

18. What percent of your professional work at the university should be spent in conducting research courses, conducting research, conducting regular courses, extension, and administrative work?
- a. ___% conducting research courses .
 - b. ___% conducting research
 - c. ___% conducting regular courses
 - d. ___% extension work
 - e. ___% administrative work
19. Are you currently engaged in any scholarly work or research which you expect that will lead to publication?
- a. ___ no
 - b. ___ yes
20. In which of the following ways do you consider yourself to be fulfilling your professional duties? Check all items that apply.
- a. Serving on university, college, or departmental committees. _____
 - b. Consulting to government, industry, business or other agencies. _____
 - c. Speaking to public or private groups. _____
 - d. Doing research. _____
 - e. Teaching regular courses. _____
 - f. Writing for publication. _____
 - g. Administrative work. _____
 - h. Other. Please specify: _____.

21. How many college or university committees have you served on in the past two years? _____
22. On the average, do you perform professional consulting work outside the university more than 10 hours per semester? _____ no _____ yes
23. Have you conducted, or are you presently conducting research at Central Luzon State University?
 ____ yes (If yes, and you would like to conduct further research, skip to Part III, if yes and you would not like to conduct further research, skip to Part IID).
 ____ no (If no, go to No. 24)
24. Would you conduct research if you had the opportunity?
 ____ yes (If yes, skip to Part III)
 ____ no (If no, go to Part IID)

D. Please indicate the reasons why you would not conduct research if given the opportunity. Check all items that apply.

	Absolute Importance	Great Importance	Medium Importance	Little Importance	Not Important
25. Remuneration is low	_____	_____	_____	_____	_____
26. Conducting research is not recognized for promotion or tenure in my department.	_____	_____	_____	_____	_____
27. My department actively discourages doing research.	_____	_____	_____	_____	_____
28. I am too busy.	_____	_____	_____	_____	_____
29. Doing research would cause an imbalance in my total academic responsibilities.	_____	_____	_____	_____	_____
30. I do not believe in the idea of conducting research.	_____	_____	_____	_____	_____
31. Conducting research involves weekends.	_____	_____	_____	_____	_____

32. Other. Please specify. _____.
33. What could cause you to do research (if the answer is not obvious from what you have marked above?) _____.

III. Please indicate, by checking the appropriate blanks, your agreement or disagreement with each of the following statements about research. Please respond even if you have had little or no experience with research activities.

	Strongly agree	Agree	Unde- cided	Dis- agree	Strongly Disagree
34. The quality of the CLSU Research and Development Center's output is comparable to that of other research institutions.	_____	_____	_____	_____	_____
35. I derive as much satisfaction from teaching as I do conducting research.	_____	_____	_____	_____	_____
36. The Central Luzon State University Research and Development Center is fulfilling its mission.	_____	_____	_____	_____	_____
37. The university ought to be as committed to the research staff as it is to the teaching staff.	_____	_____	_____	_____	_____
38. The research programs of the Research and Development Center is equally recognized with that of other research institutions' programs.	_____	_____	_____	_____	_____
39. I would be willing to conduct research courses in lieu of other courses as part of my regular teaching duties.	_____	_____	_____	_____	_____
40. The Central Luzon State University Research and Development Center should be given additional funds to carry out its mission.	_____	_____	_____	_____	_____

IV. BIOGRAPHICAL DETAILS - Please indicate by checking the appropriate blank(s) in each section.

A. <u>Sex</u>		D. <u>Professional Data</u>	
Male	_____	Ph. D., Ed. D. or equivalent	_____
Female	_____	M. S., M. A. or equivalent	_____
B. <u>Marital Status</u>		B. S., B.A. or equivalent	_____
Single	_____	Undergraduate	_____
Married	_____	E. <u>Teaching Experience</u>	
Separated	_____	1 year or less	_____
Widowed	_____	2 - 5 years	_____
Widower	_____	6 - 10 years	_____
C. Present Discipline (Check as many as apply)		11 - 20 years	_____
Agriculture	_____	21 years or more	_____
Agricultural High School	_____	F. <u>Level of your present students</u> (Check as many as apply)	
Arts and Sciences	_____	High School	_____
Business Administration	_____	Freshmen	_____
Education	_____	Sophomores	_____
Engineering	_____	Juniors	_____
Home Science and Industry	_____	Seniors	_____
Inland Fisheries	_____	Graduate	_____
University Science High School	_____	G. <u>Academic Rank</u> (Check as many as apply)	
Veterinary Science and Medicine	_____	Instructor	_____
Office of the Student Services	_____	Asst. Professor	_____
Research and Development Center	_____	Assoc. Professor	_____
University Infirmary	_____	Professor	_____
Physical Education Department	_____	Dept. Chairperson	_____
Other. Please specify _____		Other. (please specify)	_____

VITA

Renato Cruz Bernardo

Candidate for the Degree of

DOCTOR OF EDUCATION

Thesis: FACULTY AGREEMENT WITH CENTRAL LUZON STATE UNIVERSITY
INSTITUTIONAL GOALS

Major Field: Research in Occupational and Adult Education

Biographical:

Personal Data: Born on December 31, 1934 in Talavera, Nueva Ecija, Philippines; son of Honesimo B. Bernardo and Ruperta Cruz Bernardo (both deceased); married to former Ms. Estelita Peria Angeles; the father of two sons, Edel Rey and Edel Mar.

Education: Finished secondary school at Central Luzon Polytechnic College, Cabanatuan City, Philippines in 1951; obtained a title of Associate in Agricultural Education in 1955 and the degree of Bachelor of Science in Agricultural Engineering in 1959 at Central Luzon State University, Munoz, Nueva Ecija, Philippines; received the degree of Master of Science in Experimental Statistics in 1972 at University of the Philippines, Los Banos, Laguna, Philippines; received the degree of Master of Science major in Agricultural Economics at Oklahoma State University in 1980; completed the requirements for the degree of Doctor of Education at Oklahoma State University, Stillwater, Oklahoma, U.S.A. in July 1986.

Professional Experiences: Vocational-Agriculture Teacher, October 1, 1959 to September 30, 1963; instructor, October 1, 1963 to June 30, 1975; Assistant Professor, July 1, 1975 to date, Central Luzon State University; graduate teaching assistant at University of the Philippines Los Banos, 1967-69; research scholar, The International Rice Research Institute, Los Banos, Laguna, 1971-72; head, Mathematics and Statistics, 1973-76, and chairman, Physical Sciences, 1976, Central Luzon State University; scholar, Educational Development Project Implementing Task Force of the Philippines, 1977-79.

Professional Organizations: Philippine Public School Teachers Association; Philippine Society of Agricultural Engineers; Philippine

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Philippine Statisticians Association; and The Honor Society of
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DEAN'S LIST Student, U.S.A., 1985-86.