

STUDENT AND FACULTY PERCEPTIONS OF
UNIVERSITY FACULTY'S TEACHING
EFFECTIVENESS, RESEARCH
ACTIVITY, AND AVAILABILITY

By

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CHAPTER I

INTRODUCTION

The question of university teaching versus research has a long and widespread history. After World War II, as research universities were developed, the greatest rewards for professors came from research publications - and teaching took a back seat to the priority of research (Academic Work Loads, 1993; Lombardi, 1993; Winkler, 1992). There has recently been a move to adjust teaching and research for more balance within the academic system. Institutions like the University of California at Berkeley and Syracuse University have indicated that teaching will become more important considerations when promotion and tenure decisions are made (Winkler, 1992). Boyer, one of the Carnegie Foundation's foremost proponents for higher education reform, believed there should be greater attention given to classroom performance (Boyer, 1990).

Most faculty in American colleges and universities conduct their work inconspicuously and without much public notice or acclaim. Their work, and its significance, are not widely observed, understood, or appreciated (Bowen & Schuster, 1986). However, there is more attention being given to how professors actually spend their time.

Mowen (1995), in a response to a KRMG Radio talk show which indicated that professors are overpaid, teach only 6 to 7 hours per week, and are not responsive to students, compared faculty members to television anchors and sports coaches. He indicated that people in those professions only spend a minimal number of hours per week in the public's eye, when in actuality they reported working 50-plus hours per week in their jobs. Mowen indicated that faculty perform their work week in much the same way, being seen by students less than 25 percent of their actual working time.

Still, politicians continue to receive complaints from constituents that their children are not getting into classes in state colleges and universities because professors were conducting research

too much and not teaching enough (Winkler, 1992). Winkler (1992) indicated that an assumption was made that teaching has become a secondary activity for faculty members, and that research has taken professors away from what the state pays them to do. In his report, Winkler reported that at least 12 states were examining the academic work week of faculty. This is being done in order to seek new ways to make sure that faculty members teach more. States such as Virginia, North Carolina, New Mexico and Arizona have acknowledged the serious misgivings of the public regarding faculty activities and have started reporting the number of hours faculty spent on various activities (Winkler, 1992).

On March 16, 1993, the television program Dateline NBC summarized the cost versus the education factor in a report entitled "Is the student getting their money's worth?" Martin Anderson, a senior fellow at Hoover Institution, indicated that he believed students were getting cheated out of a quality education, and the parents were getting cheated out of their money. Parents of a high school student said that they were looking at investing over \$100,000 in four years and they hoped that their daughter would be taught by great professors in a nurturing intellectual environment. Thompson, the Dateline reporter, suggested that in the past 12 years, undergraduates have been seeing less and less of their professors.

A report issued by the U. S. House Select Committee on Family and Youth (1992) concluded that undergraduates were taking it on the chin, and teaching had become the unwanted orphan of the university system. The House Select Committee (1992) reported that in many places, professors taught only six credit hours per semester or less, down from 15 credit hours 10 years ago. Since 1990, tuition has risen three times the rate of inflation in this country, leaving many parents and students asking, "are we paying more for a college education and getting less?"

Thompson (1993) indicated that 1) large classes, 2) professors who don't teach, 3) students teaching students, and 4) courses students can't get into was much of what was wrong with many large universities today. According to Thompson (1993) renowned professors at the University of California at Berkeley who drew undergraduate students to the campus were conducting research and only teaching graduate courses. Berkeley has eight Nobel Laureate faculty with only one

teaching an undergraduate class during an average semester. Thompson (1993) interviewed an administrator at the university, Mr. Ellis, who indicated that Berkeley provides a setting in which the graduate students thrived on working with undergraduates. A Berkeley professor stated that Berkeley faculty have a fairly light teaching load and that their promotions were based upon their research. The current chancellor said that "teaching was important, but he didn't think the faculty believed him" (Thompson, 1993, p. 16). In conclusion, Thompson indicated that if you are a researcher at a research institution you are not necessarily required to teach, but if you're a teacher, you are required to conduct research.

In a 1993 presentation entitled "Is the Customer Always Right? Revisiting the Purposes of Higher Education," Dr. William C. Bonifield (Bonifield, 1993) of the Lilly Endowment Foundation, noted that universities and colleges were not doing as well as they should in educating people. He believed the statement from the 1948 Truman Commission on Higher Education, which stated that higher education should give students "the values, attitudes, knowledge and skills that will equip them to live rightly and well in a free society" still held today. However, Bonifield contended that higher education is not providing these values, attitudes, knowledge and skills to students.

Bonifield (1993) indicated that the customer of higher education is the learner and it will be that customer who will get the attention of higher education. He suggested that colleges and universities exist to educate students and those institutions that ignore the customer will ultimately fail. Although Bonifield did not agree that the customer is always right, he indicated that higher education should conduct itself as though the answer was yes. He also stated that teaching can and should be evaluated on its contribution to learning.

Thus, higher education is under attack for various reasons. There are those who believe professors do not teach enough, or that their teaching is not effective. Others contend that research has taken over the priorities of the professor and teaching is a by-product.

Some strongly believe that students' opinions of professors' teaching effectiveness are critical to know, and others suggest that students may not know what they need to learn. Angelo

(1994) pointed out that assessment of classrooms is often controlled by politicians, bureaucrats, or college administrators, when in essence evaluation should involve both faculty and students. It is these two parties which are actively, continuously, and personally involved in individual classroom interaction. It is therefore beneficial to examine both faculty and students' perceptions of professors' teaching effectiveness, research activity, and availability in order to improve accountability, efficiency, and the quality of student learning.

Statement of Problem

Since faculty and students are the participants in classroom interaction and those who are directly involved in what takes place in the classroom, several vital questions need to be addressed. Do faculty and students have shared perceptions of what constitutes effective college teaching, research activities of the faculty member, as well as faculty availability to the student? Are faculty and students' perceptions of effective college teaching, research activities, and availability different by academic discipline? Two Colleges/Schools perceived to have many differences (Human Sciences and Engineering) were chosen for comparison in this study. Colleges/Schools of Human Sciences and Engineering will be chosen from Research II universities (A Classification, 1994) (See Appendix A). Universities within this classification have similar commitments and priorities to research, allowing comparisons between these universities regarding faculty and student perceptions of teaching effectiveness, research activity, and instructor availability.

Objectives

The following objectives were established for this study:

1. Assess and compare students' perceptions of Research II university faculty's teaching effectiveness, research activity, and availability for students from two different academic disciplines (Human Sciences and Engineering).
2. Assess and compare Research II university faculty perceptions of their own teaching effectiveness, research activity, and availability for faculty from the two identified academic disciplines.

3. Compare faculty and students' perceptions of teaching effectiveness, research activity, and availability within each specified discipline.

4. Investigate if faculty and student perceptions differ by faculty demographics such as academic rank and years in an academic teaching/research position.

Hypotheses

The following hypotheses will be tested for this study:

1. There are no significant differences in student perceptions of teaching effectiveness, faculty research activity, and faculty availability by college/school affiliation.

2. There are no significant differences in faculty perceptions of teaching effectiveness, faculty research activity, and faculty availability by college/school affiliation.

3. There are no significant differences between student and faculty perceptions of teaching effectiveness, faculty research activity, and faculty availability within each college/school affiliation.

4. There are no significant differences in faculty and student perceptions of teaching effectiveness, faculty research activity, and faculty availability due to academic rank.

5. There are no significant differences in faculty and student perceptions of teaching effectiveness, faculty research activity, and faculty availability due to years in academic position.

Definition of Terms/Variables

The following concepts will be used for this study:

1. Teaching - The obligation to prepare courses for the purpose of guiding students to knowledge by providing a structure and content, in which students can form their own rationally based beliefs about the subject.

2. Faculty availability - The accessibility of the instructor outside of the classroom for certifying student progress, academic advisement, intellectual discussions, and consultation.

3. Faculty research activities - The process of engaging in a specialized, deliberate search for the purpose of inquiring and examining information that advances or creates knowledge and seeks understanding about a particular subject.

4. Research II universities - Those universities that offer a full range of baccalaureate programs, are committed to graduate education through the doctorate, and give high priority to research. Research II universities award 50 or more doctoral degrees and receive between \$15.5 million and \$40 million in federal support annually (Boyer, 1990).
5. College/School affiliation - College/School of Human Sciences or College/School of Engineering in which the faculty member holds an academic position.
6. College/School of Human Sciences - Established Colleges/Schools of Home Economics, Human Environmental Sciences, Human Ecology, and Human Sciences.
7. College of Engineering - Established Colleges/Schools of Engineering/Technology.
8. Departmental affiliation - Departmental unit within each college/school to which the faculty member is linked.
9. Academic rank - Professor, Associate Professor, Assistant Professor, and Instructor.
10. University teaching experience - Total years employed full-time in higher education in a teaching or teaching/research position.
11. Academic classification - Freshman, Sophomore, Junior, Senior, and Graduate.

Limitations

1. This study will be limited to all Research II universities, as determined by A Classification (1994), that contain both Colleges/Schools of Human Sciences and Engineering.
2. This study will be limited to faculty and students in Colleges/Schools of Human Sciences and Engineering.
3. The study will be limited to faculty recommended by their college deans based on teaching/research effectiveness criteria outlined in Chapter 3.
4. This study will be limited to students enrolled during the fall of 1995 in junior or senior level classes taught by the faculty recommended for inclusion in the study.
5. This study will be limited to faculty teaching junior or senior level classes for the fall of 1995.

Organization of Chapters

The chapters of the dissertation were organized in the following manner: Chapter I contains the introduction to the study including purpose, hypotheses, and limitations. Chapter II contains the review of literature. Chapter III contains the methodology. Chapter IV contains a manuscript addressing the research hypotheses. Chapter V contains a manuscript addressing formal faculty appointments and responsibilities. Chapter VI contains the summary and recommendations for future research.

CHAPTER II

REVIEW OF LITERATURE

The review of literature is subdivided into three sections: teaching effectiveness, research activity, and faculty availability. Each section will focus on previous studies that were conducted regarding the specified topic with a summary concluding the chapter.

Teaching Effectiveness

The evaluation of college teaching is a complex task that received great attention in the early to mid 1970's research literature. A recurring surge of attention has been placed again on this task of evaluating effective college teaching. This new attention has changed very little in its scope and complexity since the 1970's studies. The evaluation of college teaching is multi-purposed and open to controversy with little agreement as to appropriate measures or methods of evaluation.

Evaluation measures that have been used include: peer and administrator observation, student surveys, administrator surveys, peer surveys and teacher self-evaluation. Although virtually everyone concerned with higher education has an opinion about what constitutes a good teacher and/or good teaching, it is difficult to find agreement concerning objective or subjective measures that adequately assess teaching effectiveness. Therefore, research that focuses on the opinions of students and faculty, those who are the most involved in the teaching process, is the subject of this portion of the review of literature. The teaching effectiveness subsections cover research that investigated students' perceptions of teaching effectiveness, student and faculty perceptions reported together, and faculty perceptions.

Student Perceptions

In an article that reviewed findings and research designs used to study students' evaluations of teaching effectiveness, Marsh (1984) suggested that student evaluations provided:

(a) feedback to faculty regarding their effectiveness; (b) a measure of teaching effectiveness for promotion/tenure decisions; (c) information for students in selecting courses and instructors; and (d) an outcome on a process description for research or teaching. The most widely accepted use of student evaluations is to provide feedback to faculty regarding their teaching effectiveness. Marsh indicated that items (b) and (c) are not universally used. Some universities used student evaluations in considering promotion and tenure, but this was optional, and other universities do not even consider it.

Feldman (1976) conducted a study among students and found that stimulation of interest, clarity, and knowledge of subject matter were the most important traits of superior college teachers as perceived by students. When students were free to describe an ideal teacher they used terms such as friendliness, helpfulness, and openness to others' opinions.

Friedrich and Michalak (1983) studied the relationship between teaching and research using student evaluations from a small liberal arts college. Faculty data were obtained from the institution's faculty annual review process for the five-year period previous to surveying the students. This included the faculty members' number and quality of publications, research in progress, programs of study, and involvement in professional activities. The students were asked to evaluate the instructor's knowledgeability, interest and enthusiasm, presentation, preparedness, and explanations of the course. Availability for consultation, feedback on student performance, promptness in returning work, and professor's personality were also included as factors in the study. Friedrich and Michalak found that there was a slight association between faculty members who were more productive in research during the five-year period and effective teachers and no association between faculty members who were less productive and effective teachers. The only association that emerged, although weak, was between the course organizational abilities of the faculty and research productivity. Those faculty who engaged in more research were found to organize their courses more effectively. Correlations for the instructor's availability outside class, feedback on performance, promptness in returning work, and the instructor's personality were all

positive but low, indicating that there was a small enhancing relationship between teaching and research.

Luehrs and Brown (1992) conducted a study using existing student evaluation data and faculty publication activity from Michigan Technological University for a five-year period. Four disciplines were included: engineering, physical sciences, business administration, and forestry. A regression analysis of teaching effectiveness from the student evaluations and the number of publications from the faculty indicated no association between the two. The study did not support the idea that research activity, as measured by number of publications, has any effect on teaching effectiveness. However, they found that instructors' attitudes and knowledge of subjects had a positive association with students' evaluation of teaching effectiveness.

Knox, Lindsay, and Kolb (1992) examined student satisfactions with their experiences in higher education. The student respondents were selected from a 1986 national study of high school students graduating in 1972, resulting in a total of 5,409 respondents. The researchers surveyed the students using ten different satisfaction measures. The first five items dealt with educational satisfactions and the second five items with perception of academic experience. A factor analysis was performed on these ten items and one factor emerged. The questionnaire items loading on this factor were related to the quality of instruction; the ability, knowledge, and personal qualities of most teachers; the course curriculum; the students' intellectual growth; and the development of the students' work skills. When the researchers categorized the students by their majors (business, education, and arts and sciences), no significant differences were found in their academic satisfaction.

Student and Faculty Perceptions

Brewer and Brewer (1970) conducted three studies using ten traits that had been obtained from previous literature and were common to teaching effectiveness. The ten traits included in all three studies were: interesting presentation of subject matter; fairness to all students; thorough knowledge of subject matter; enthusiasm for teaching; tolerance of other people's views; personal interest in students; ability to direct discussion; sense of humor; accomplishment in research; and

poise. There were 45 possible pairings of these traits. The researchers used the 45 paired traits for the standard pair comparison procedure in which the respondent was instructed to place a check mark next to the trait believed to be important for good college teaching.

The first survey instrument by Brewer and Brewer (1970) was administered to 627 undergraduate students who were instructed to place a check by the trait in each pair that they thought was more important for good college teaching. The second study reported by Brewer and Brewer (1970) involved 54 faculty and administrators who were asked to complete the questionnaire using the same procedure as the students. In the third study, students again evaluated the same pair of traits but they were asked to respond to the traits with a specific college teacher that stood out in their minds as an excellent teacher. In the first two studies, three top traits emerged: interesting presentation of subject matter, thorough knowledge of subject matter, and fairness to all students. For the third study, students rated enthusiasm for teaching above fairness to all students. Thus, fairness to all students was rated as more important for students when they were evaluating in the abstract than for students rating a specific teacher. Overall, there was considerable agreement between faculty and student rating of teaching effectiveness.

Baum and Brown (1980) conducted a survey of both students and faculty at one university's School of Business and Economics on perceptions of teaching effectiveness. The researchers chose ten traits that were common to the teaching process and asked students and faculty to distribute 100 points across the ten traits according to their perception of importance of the trait for teaching effectiveness. The researchers did not explain their process of point distribution. The classes were randomly selected from the following seven fields: accounting, business law, economics, finance, management, management science, and marketing. The students indicated three traits as important: lectures easy to outline; lectures are entertaining; and faculty identification of what is important for exams. Faculty chose five traits as important, two of which were student oriented: expects students to be prepared and expects students to demonstrate creative thinking on exams. Three were faculty oriented: emphasizes concepts; stresses applications; and has high grading standards. The researchers found no relationship in the way

students indicated relative importance of the traits according to their major, gender, age, grade point average, or completed units. Also, faculty members' ages, departments, ranks, teaching experience, committee participation and publishing were not found to be related to how the faculty rated importance of the traits.

Feldman (1988) explored the extent to which students and faculty differed in the criteria used in evaluating teaching. He found 31 studies that included responses by both students and faculty on the importance of various components of teaching. By using average standardized differences, Feldman found that students placed more importance on teachers stimulating students' interest, teachers' elocutionary skills, availability and helpfulness, concern for students, showing respect for students, and being friendly. Faculty placed more importance on teachers encouraging self-initiated learning, challenging students intellectually, encouraging student's independent thought, motivating students to do their best, setting high standards of performance, and being enthusiastic for the subject or for teaching. The greatest differences found between student's and faculty perceptions occurred in relation to three items: intellectual challenge (faculty rated more important), stimulation of interest (students rated more important), and motivating students and setting high standards (faculty rated more important). Students and faculty both were found to place high importance on teachers being knowledgeable about the subject matter, clear and understandable, and sensitive to class level and progress. Both students and faculty placed lower importance on teachers being intellectually expansive and intelligent; open to student questions; class discussion; open to the opinions of others; and for the course material to be valuable, useful, and relevant. The least important factors perceived by both students and faculty were clarity of course objectives and requirements, personality of the instructor, and extent of the teachers' research activities.

Feldman (1987) reported a study investigating student and faculty views on effective instruction. Differences occurred between the two groups with students placing more importance than faculty on teachers being interesting, having good elocutionary skills, and being available and helpful. Faculty indicated that students may not use appropriate criteria when evaluating a teacher.

Romine (1974) studied student and faculty perceptions of, what he termed, an effective university instructional climate for students. Resulting from both student and faculty perceptions, several critical attributes were revealed involving the instructor. He found that an effective university instructional climate included instructors who made written materials available to students; were dynamic and personable; were enthusiastic about their courses; appeared sincerely interested in and respectful of students; demonstrated knowledge of their fields of study; were well prepared for their courses; and were well organized. It was also desirable that the instructor communicated well with students; knew how to teach as well as what to teach; and employed fair, impartial, and reasonable assessment. Although Romine's study was basically to develop reliability and validity for the attributes, he indicated that students focused on the kind of person the instructor was, how well the instructor knew the subject matter, and the teacher's classroom presence, while faculty perceived that more procedural items (i.e. preparation for class and knowledge of their field) were more important.

Centra (1983) studied research productivity and teaching effectiveness using student data and faculty surveys. He specifically investigated the teaching-research relationship among faculty members at different stages in their careers and in different academic fields. Faculty members from 61 four-year universities comprised the first sample (N=2,973). The second sample (N=1,623) was selected from 10 four-year universities after the first sample had responded to the survey. These two groups of faculty had previously administered a student instructional report (SIR) evaluation, and completed an instructor cover sheet to the student evaluations. Among humanities, natural science, social science and professional areas, only in the social science faculty group was there a consistent significant relationship between the number of publications by faculty and student ratings of teaching effectiveness. Among social science instructors there was a link between high ratings from students and being a prolific writer regardless of the instructors' career stage. Research universities were largely absent from this study.

The only studies in which faculty were asked to evaluate their own teaching using the same instrument as that used for student evaluations were conducted by Marsh (1982) and Marsh,

Overall, and Kesler (1979). Their studies revealed student-faculty agreement on factors in every dimension. There were no significant differences occurring between student and faculty responses when the mean differences were calculated.

Faculty Perceptions

The use of instructor self-evaluations to determine teaching effectiveness has had limited application (Marsh, 1984). Instructor self-evaluations of research productivity were found to be only slightly correlated with their own self-evaluations of their teaching effectiveness (Marsh & Overall, 1980). Both faculty and student evaluations of instructor enthusiasm correlated positively with instructors' perceptions of their enjoyment of teaching.

Markie (1994) pointed out that faculty self-evaluation is rarely used for personnel decisions due to its lack of objectivity. However, Markie indicated that faculty self-evaluation can be used in conjunction with student surveys to determine consistencies in perceptions of classroom performance. Differences in these perceptions between faculty and students can potentially be used to identify strengths and weaknesses in teaching.

Research Activity

Impact on Teaching

Reasons for research. Marsh (1984) indicated that research helps instructors keep apprised of new developments in their field and to stimulate their thinking. Therefore, it should provide a basis for predicting a positive correlation between research activity and students' evaluations of teaching effectiveness.

Blackburn (1974) believed that a faculty member must be engaged in scholarship in order to be a first rate teacher. Further, a professor who neglected teaching responsibilities for the sake of publications results in unsatisfactory classroom performance.

Hughes (1991) suggested that research is a priority activity for faculty and academic departments because it represents a means to achieve national prestige for the department and career advancement for the faculty member.

According to Ruddick and Hopkins (1985), the “teacher as researcher” role rests on two principles: first, that teachers’ research is linked to the strengthening of teachers’ judgment and consequently to the self-directed improvement of practice, and second, that the most important focus for research is the curriculum. “The responsibility of teachers, at all levels, is to free students from the insularity of their own minds, prevent them from lodging in the comfortable branches of the teacher’s thought, and to try instead to foster a less cautious and confined exploration of knowledge: one that confers on those who seek it, in a spirit of critical inquiry” (Ruddick & Hopkins, 1985, p. 3).

Research differences between disciplines. Along with effective teaching, an increased emphasis has been placed on research productivity and its impact on teaching effectiveness. Hoyt and Spangler (1976) examined research involvement and teaching outcomes. They surveyed department heads and students in the natural-mathematical sciences and in the social-behavioral science disciplines. The department heads rated their faculty members on time commitment and accomplishment of their research productivity. According to the department head ratings, faculty in natural-mathematical sciences were more involved in research than those in social behavioral sciences. The students rated the faculty in three areas: student progress; general outcomes; and course characteristics. Between the disciplines, student ratings differed for the faculty. Students in social-behavioral sciences rated their faculty higher on the amount of reading required for the course and on students’ factual knowledge, creativity, effective communication, problem-solving, self-understanding, personal responsibility, and understanding and appreciation of intellectual activity. Students in natural-mathematical sciences rated their faculty higher in other work besides reading, difficulty of the course, and factual knowledge. There were no differences found between the student ratings in different disciplines in regard to how well they liked faculty members.

When research involvement was considered, Hoyt and Spangler (1976) found that overall student ratings of teaching effectiveness were unrelated to the degree to which faculty members were involved with research with three notable exceptions. First, those faculty members who held heavy research responsibilities appeared to set higher academic standards than those less involved,

according to students. Second, students perceived themselves to have gained more progress when the faculty had heavier research responsibilities. Third, the course difficulty was perceived higher in those classes taught by faculty with heavy research responsibilities.

Moses (1990) examined research as a model for teaching across four disciplines: chemistry, engineering, English, and law. Four-hundred teaching-research faculty at one Australian university were asked to indicate their academic appointment (primarily teaching, teaching and research, or primarily research) on a five-point scale and to assess their own teaching performance on a seven-point scale. The majority (90%) of faculty surveyed in all of the disciplines agreed that their teaching was enhanced by their research (Engineering, 94%; Chemistry, 95%; English, 96%; Law, 80%). When asked to assess their own teaching performance, only 34% of all respondents rated themselves as very good teachers.

Research involvement of teachers. Jauch (1976) studied the relationship between research and teaching for 23 departments in natural, mathematical, medical and biological sciences. Faculty members (N=86) were interviewed and data obtained for a variety of attitudinal questions regarding research and teaching evaluation. The opinion statements rated by each faculty member on a Likert-type scale included: research increases teaching effectiveness by increasing faculty awareness and currency; a good researcher need not be a good teacher; a good teacher must do research; time devoted to research detracts from teaching; and publications are more important than teaching for evaluation purposes. Ninety-five percent of the faculty either agreed or strongly agreed that research increases teaching effectiveness, while 89 % indicated that a good researcher does not have to be a good teacher. Only 23 % of the faculty indicated that a good teacher must conduct research, 62% either disagreed or strongly disagreed with this statement. Jauch found that time was a constraining factor for a faculty member. Because teaching and research are the largest time allotments for a faculty member, time tradeoffs occurred between these two areas more than over any others. Therefore, these areas were impacted when time became a factor. When faculty responded to “time devoted to research detracts from teaching,” only 23 % agreed while 61% either disagreed or strongly disagreed with the statement. Jauch indicated that because of heavy

workloads and limited time, faculty are not able to increase productivity in one area without some loss in another. He also found that faculty perceived publications to be more important than teaching. Simpson (1993) agreed with the notion that there is limited time for teaching, research, and other activities in the present, but indicated that over a career span there is time to do both.

Effects of Research on Teaching

Enhancement of teaching. A number of researchers have indicated that research should enhance teaching (Markie, 1994; Nazemetz, 1994; Parilla, 1986; Simpson, 1993). Markie (1994) indicated that it is the obligation of a professor to engage in research that supports teaching by maintaining and increasing knowledge. He suggested that the primary function of a professor is to help students achieve intellectual and emotional maturity by learning. In order for a professor to help students achieve this, scholarship is required and familiarity with current research is necessary.

According to Parilla (1986), the act of conducting interpretive, rationalistic scholarship is necessary to understand the results of basic research, to organize facts and information for quality teaching, and to maintain currency in one's teaching field. Nazemetz (1994) indicated that faculty must perform research activities in order to prepare students to succeed in expanding technologies and in global competition. The author reported that research led to new technologies, industries, and jobs and also promoted links between business and universities. This research interaction by the faculty aided students, through the classroom, by better preparing and making students more employable. Scott (1988) suggested that students need to be taught by people who were active in their research, not just spectators in their disciplines.

No teaching-research relationships. Volkwein and Carbone (1994) surveyed graduating seniors in different academic departments within Research II universities. They also conducted interviews with deans and chairs to gain information regarding the climate for research and scholarship at their universities. When correlations were performed among the separate teaching and research measures, no associations were found. Therefore, the researchers found little evidence to support the argument that research enhanced teaching. However, they found even less

evidence to support that research was harmful to teaching. These findings are consistent with Feldman's (1987) studies in which student ratings of individual instructors had little association with faculty research and scholarly productivity.

Ramsden and Moses (1992) conducted a study that asked faculty respondents to provide details of their appointment, interest, qualifications, and previous experience, and to assess their own capacities separately as teachers and researchers. Results of this study did not support the effect of teaching on research, or the effect of research on teaching; neither did it provide any evidence that doing little or no research necessarily implied excellence in teaching. The researchers drew several implications. First, they proposed that teaching and research need to be separately assessed for promotion and tenure decisions. Second, it appears that separating teaching and research might increase quality, especially teaching quality. They suggested that the recognition of teaching in promotion decisions should be given greater weight than is currently practiced.

Shore, Pinker, and Bates (1990) studied research as a model for teaching by interviewing 55 professors regarding their research and teaching practices. The professors responded to questions regarding their types of research, sources of research ideas, and teaching practices. The faculty indicated that the majority of research conducted was either experimental or exploratory and the source of their research ideas resulted from building their own previous research and examining literature and theory. Very few faculty indicated that they received research ideas from their courses or students. Shore, et al. (1990) found little evidence that faculty members' research in their disciplines directly influenced the faculty members' teaching practices.

Tanner, Manakyan, and Hotard (1992) examined the relationship between research activity and teaching effectiveness for university faculty in the management area. The researchers randomly selected management faculty to participate and analyzed their responses according to the following characteristics: academic rank, years of teaching experience, level of instruction, and teaching load. Research activity was measured by the number of published papers/presentations for each faculty member. The respondents' teaching performance was determined by compiling an overall average score from student opinion surveys of their teaching and their own rating for

teaching effectiveness. Tanner et al. (1992) found that teaching effectiveness differed when experience and teaching load were examined. Those with the highest teaching effectiveness score had 11 to 15 years of experience and taught 10 or more hours per semester.

Scholarship

Boyer (1990) has led the critique that major universities have too narrowly defined "scholarship" as research productivity. He argued for a broader view of scholarship, which includes integration, synthesis, and teaching as well as discovery. Boyer stated that the relationship of teaching to scholarship and research has been confused because there have not been clear definitions of research and scholarship. The researcher's typical definition of scholarship is the organization, criticism, and interpretation of facts and thoughts of facts. Scholarship is an element in the pursuit of understanding. According to Boyer (1989), scholarship is of vital importance to the academic enterprise. Not only is it important for faculty to have a clear and understandable definition of scholarship, but it is important for students as well. There is little literature regarding students and their definition of scholarship and what it means to the university, faculty, and to students themselves.

Availability of Faculty

The issue of instructor availability for student consultation, either related to coursework or not, occurs few places in the literature. Lamport (1993) reviewed the literature and notes that research supports the view of the faculty member as a socializing agent in students' college experience. A link between instructor availability to students and students' perceptions of teaching effectiveness has been rarely studied.

Markie (1994) discussed the obligations of the faculty member to students outside the classroom. He indicated that often a student's academic crisis is related to a personal issue. Yet he believes that professors do not have an obligation to contact a student to determine reasons for an academic problem. Markie suggested that there is no general obligation for professors to interact with students beyond their courses. However, he pointed out, if faculty do interact with students outside the classroom, the perception of the university's educational environment is

strengthened. However, Markie (1994) cautioned that friends exchange private information, which sometimes is inappropriate in a student-faculty relationship. He stated that professors are “fundamentally obligated to give all students equal consideration in instruction, advising, and evaluation” (Markie, 1994, p.70) and any friendship that is established with students can prevent the professor from fulfilling this obligation. Markie effectively reminds the reader of the fine line existing between responding to students’ requests and being fair to all students.

Summary

Opinions of students in higher education are becoming a key and necessary part of the determination of teaching excellence (Fernandez & Mateo, 1992). Student evaluations have been used in interpreting university teacher effectiveness for many years (Doyle & Crichton, 1978; Marsh, Overall & Kesler, 1979; Perry & Magnusson, 1987; Tollefson, Chen & Kleinsasser, 1989). Students’ perceptions of teaching effectiveness have also been compared with faculty research productivity using various methodologies (Friedrich & Michalak, 1983; Hoyt & Spangler, 1976; Luehrs & Brown, 1992). These involved separate surveys for both students and faculty with findings from these studies varying widely. Some studies revealed that research enhanced instruction (Markie, 1994; Parilla, 1986; Simpson, 1993), while other studies have found no apparent association between research and instructional effectiveness (Feldman, 1987; Ramsden & Moses, 1992; Volkwein & Carbone, 1994). Students have not been included in addressing research activity of a faculty and their perceptions of the importance of research in their educational experience. Nor have students been surveyed regarding their perceptions of the importance of availability of an instructor outside of class. No studies have examined both student and faculty perceptions regarding teaching effectiveness, availability, and research activity using comparable instruments.

The assessment of college teaching effectiveness is a complex task that is subject to considerable speculation and controversy. Coupled with the evaluation of instructor research activity and instructor availability, the assessment could provide valuable information to those in

higher education as to the perceptions of what students want from a college instructor and what faculty believe they provide to their students.

CHAPTER III

METHODOLOGY

The purpose of this study was to investigate students' and faculty members' perceptions of instructor teaching effectiveness, research activity, and availability to students within Research II universities, specifically within the Colleges/Schools of Human Sciences and Engineering. Boyer (1990) defined Research II universities as those that offer a full range of baccalaureate programs, are committed to graduate education through the doctorate, and give high priority to research. Research II universities award 50 or more doctoral degrees and receive between \$15.5 million and \$40 million in federal support annually. There were 15 Research II universities that had both a unit/college of Human Sciences and Engineering (See Appendix A). This resulted in 29 total colleges/schools that were selected to participate. One university had both Human Sciences and Engineering within the same college resulting in only 29 colleges/schools instead of 30. Each college/school dean chose 2 faculty members leading to a total of 60 possible faculty respondents. Of the 29 colleges selected to participate 19 colleges returned completed questionnaires resulting in a 65.5% return rate. Eleven colleges (57.9%) were Human Sciences and 8 (42.1%) were Engineering. Not all faculty completed their questionnaires with their classes resulting in 34 of 38 faculty and 697 students participating in the study. Five hypotheses were developed for this study regarding perceptions of students and faculty members in relation to teaching effectiveness, research activity, and availability.

Research Design

This study involved the assessment of college teaching effectiveness, instructor research activity, and instructor availability by both students and faculty to determine if differences occurred in the perceptions of the two groups. The first phase of this study involved the construction of two equivalent questionnaires, one for faculty and one for their students, designed

to measure student and faculty perceptions of teaching effectiveness, instructor research activity, and instructor availability.

Sample

Faculty Sample.

Data were obtained from faculty members in Colleges/Schools of Human Sciences and Engineering at 15 Research II universities. The dean in each of the 29 colleges/schools was contacted to solicit cooperation in choosing two faculty members within the college/school for participation in the study. Each dean received a letter (Appendix B) delineating the criteria for selection of faculty. The faculty member must have had both a teaching and research appointment. He/she should have been recognized for teaching effectiveness as evidenced by high student evaluations, high student performance on standardized tests or in competitions, teaching awards, and obtaining teaching grants. The faculty member must have been an active researcher with scholarly output in the form of published articles in refereed materials. Each faculty member must have been active with presentations at national and/or international meetings in his/her field, and be currently teaching a junior or senior level class.

The dean was asked to notify the two faculty and request their cooperation. If the faculty agreed to participate, each faculty member was asked to complete the faculty questionnaire and specify a junior or senior level class he/she was currently teaching. Faculty returned their questionnaires to the dean's office. The dean's office then distributed questionnaires to each junior or senior class the faculty member indicated. Two weeks after the initial mailing a reminder post card was mailed to each dean whose questionnaires were not returned by the specified date. A second follow-up letter was mailed to each dean approximately four weeks later.

Student Sample.

Data were obtained from students enrolled in junior or senior classes for each of the selected faculty members in Colleges/Schools of Human Sciences and Engineering courses from 15 Research II universities. Students within classes were asked to complete the student questionnaire and submitted completed questionnaires to a class representative who turned them into the dean's

office. The dean's office returned all questionnaires to the investigator in a self-addressed stamped envelope.

Instrument

The instruments used for the study consisted of a compilation of items from previous studies and items developed by the investigator. Appendix C contains each questionnaire item and the source(s) for each item. Two surveys were developed for this study, one for students and one for faculty.

Student Survey.

The student survey (Appendix D) was organized in three main sections: teaching effectiveness, research activity, and availability. The first section, teaching effectiveness, was divided into three sections: instructor characteristics; classroom presentation; and evaluation, feedback and reinforcement. Each student respondent was asked to indicate on a Likert-type scale (5=strongly agree, 1=strongly disagree) agreement/disagreement with statements regarding the instructor's characteristics; classroom presentation; and evaluation, feedback, and reinforcement practices. Each of the statements in this section was modified from previous literature regarding teaching effectiveness.

The second section of the student survey addressed the research activity of the instructor. Each respondent was asked to indicate on a Likert-type scale (5=strongly agree, 1=strongly disagree, 0=don't know) agreement/disagreement with statements regarding research activity. The "don't know" category was included in the student survey due to the possible lack of knowledge by the student regarding the instructor's research activities. The first six statements addressed the extent to which the instructor related research with classes, was accomplished in and knew research literature and gave assignments which required research journal use. The next three statements were linked with a Likert-type scale (5=always, 1=never, 0=don't know) which addressed the

extent to which the instructor shared results of his/her research and perceptions of teaching's effect on research and vice versa. The last three items in this section asked the student to indicate the extent to which the instructor obtained funding, published manuscripts or books and participated in presentations or design shows/exhibits. These statements were modified from previous literature or developed for this study by the investigator. The last two questions in the research activities section were open-ended and asked the respondent to define the purpose of research and define the relationship between research and instruction. The last section of the student survey consisted of demographic items including gender, residential status, age, academic classification, academic college/school, and academic department.

Faculty Survey.

The faculty (Appendix E) survey was also organized in three main sections equivalent to the student survey: teaching effectiveness, research activity, and availability. The first section, teaching effectiveness, was divided into three areas: instructor characteristics; classroom presentation; and evaluation, feedback and reinforcement. The first two areas (instructor characteristics and classroom presentation) were identical to the student survey with the exception of subject replacement. For example: the student version read "My instructor has an enthusiasm for teaching," while the faculty version stated, "I have an enthusiasm for teaching." The third area (evaluation, feedback, and reinforcement) of the teaching effectiveness section was identical in regard to eight items. Two items included in the student version were dropped from the faculty version. Three items on the faculty survey in this section were placed in the research/scholarly activities section on the student survey. These adjustments were made due to the nature of the questions and the differing format of the research/scholarly activities sections of the two questionnaires.

The second section of the faculty survey addressed the research scholarly activities of the instructor. Each faculty respondent was asked to indicate on a Likert-type scale (5=strongly agree, 1=strongly disagree) agreement/disagreement with statements regarding his/her research activity.

The third section of the faculty survey was identical to the student survey section which addressed availability of the instructor to students. Twelve statements were modified and/or developed by the investigator for this section. Each faculty respondent was asked to indicate using a Likert-type scale (5=strongly agree, 1=strongly disagree) degree of agreement regarding the availability of the instructor to the student for advisement, consultation, and discussions outside the classroom. The last three statements were linked with a Likert-type scale (5=always, 1=never) which addressed the extent to which the instructor shared results of his/her research and perceptions of teaching's effect on research and vice versa. The last two questions in the research activities section were open-ended and asked the faculty respondent to define the purpose of research and the relationship between research and instruction.

The next section of the faculty survey consisted of demographic items including gender, age, academic rank, college/school affiliation, departmental affiliation, and total full-time years teaching. The last section of the faculty survey included a "responsibilities" section to identify appointment percentage, hours spent advising, hours spent teaching, and involvement in service both within and outside the university.

Pilot Study.

A pilot test was conducted with two classes from a Human Sciences College and 2 classes from an Engineering College. Two faculty from each college were also asked to complete the faculty version of the survey. The responses to both the faculty and student questionnaires led to minor revisions of each questionnaire. The teaching practices section for both the student and faculty questionnaires were not changed. The research/scholarly activities section was revised according to suggestions made by both the faculty and student responses. The "don't know"

category was added to this section of the student questionnaire due to the written responses to the items. The faculty responsibilities section was also refined so that the faculty could insert the actual percentage of their responsibilities, and actual number of undergraduate and graduate students advised, hours per week advising, scholarly output, service activities, and outreach categories.

Statistical Analysis

Data for this study were primarily collected using a response scale. The majority of the items used a 5-point scale (5=strongly agree, 1=strongly disagree), the remaining items used a six-point response scale (5=strongly agree, 1=strongly disagree, 0=don't know or 5=always, 3=sometimes, 1= never, 0=don't know) for the student version only. The "don't know" category was added to the student survey because students may not be aware of faculty involvement in some of the activities listed. T-tests were used to compare means of each item for two groups, such as between students in two colleges/schools and between students and faculty within each college/school. Responses to the two open-ended questions were coded and frequencies were calculated to determine if specific definitions emerged.

CHAPTER IV

MANUSCRIPT I:

**STUDENT AND FACULTY PERCEPTIONS OF UNIVERSITY FACULTY REGARDING
TEACHING EFFECTIVENESS, RESEARCH ACTIVITIES, AND AVAILABILITY**

STUDENT AND FACULTY PERCEPTIONS OF UNIVERSITY FACULTY REGARDING TEACHING EFFECTIVENESS, RESEARCH ACTIVITIES, AND AVAILABILITY

Abstract

This study was conducted to determine if perceptions of land grant university faculty members by both students and faculty differed in regard to teaching effectiveness, research activities, and availability. Questionnaires were mailed to deans of 29 Colleges/Schools within 15 Research II universities, which had both a Human Sciences and Engineering College/School, requesting them to select two faculty members to complete the faculty version of the questionnaire. Each of the selected faculty members were asked to indicate one junior or senior level class in which to distribute the student version of the questionnaire. Thirty-four faculty and 697 students returned usable questionnaires. Results of this study indicated that students and faculty differed in their perceptions regarding university faculty members' teaching effectiveness, research/scholarly activities and availability to students by college affiliation, faculty academic rank, and number of years employed.

CHAPTER IV

Manuscript I

Introduction

There has recently been a move to adjust teaching and research to be more balanced within the academic system. Boyer, one of the Carnegie Foundation's foremost proponents for higher education reform, believed there should be greater attention given to classroom teaching performance (Boyer, 1990).

Most faculty in American colleges and universities conduct their work inconspicuously and without much public notice or acclaim. Their work, and its significance, is not widely observed, understood, or appreciated (Bowen & Schuster, 1986). Professors in higher education have responsibilities in addition to teaching that are not widely known. These additional responsibilities have come under attack for taking time away from teaching. Currently there is more attention being given to how professors actually spend their time.

Teaching Effectiveness

The evaluation of college teaching is a complex task that received great attention in the early to mid 1970's research literature. More recently, considerable attention has been again placed on measuring teaching effectiveness. The measurement approach has changed little in its scope and complexity since the 1970's studies. Evaluation of college teaching is multi-purposed and open to controversy with little agreement as to appropriate measures or methods of evaluation.

Evaluation measures that have been used in the past include: peer and administrator observation, student surveys, administrator surveys, peer surveys, and teacher self-evaluation. Although virtually everyone concerned with higher education has an opinion about what constitutes

a good teacher and/or good teaching, it is difficult to find agreement concerning objective or subjective measures that adequately assess teaching effectiveness.

The majority of the literature has addressed evaluation surveys designed to measure students' perception of instructor characteristics that influence effective teaching. Marsh (1984) suggested that student evaluations provided: (a) feedback to faculty regarding their teaching effectiveness; (b) a measure of teaching effectiveness for promotion/tenure decisions; (c) information for students in selecting courses and instructors; and (d) an outcome on a process description for research or teaching. The most widely accepted use of student evaluations is to provide feedback to faculty regarding their teaching effectiveness. Marsh indicated that items (b) and (c) are not universally used. Some universities used student evaluations in considering promotion and tenure, but this was optional, and other universities did not even consider it.

Several studies used student evaluations of university professors' characteristics, both personal and classroom, and found that certain characteristics have been linked to higher student evaluations. Feldman (1976) indicated stimulation of interest, clarity, and knowledge of subject matter were the most important traits of superior college teachers according to students. Terms such as friendliness, helpfulness, and openness to others' opinions were also included when the students freely described an ideal teacher.

Brewer and Brewer (1970) conducted three studies using paired instructor characteristics. The first survey was administered to undergraduate students and the second survey was given to faculty. Each group was asked to place a check mark by the trait they thought was more important for good college teaching. The third survey was again given to students who were asked to evaluate the same pair of traits but they were asked to respond to the traits with a specific college teacher who stood out in their opinion as an excellent teacher. Results of the first two studies indicated three top traits: interesting presentation of subject matter, thorough knowledge of subject matter, and fairness to all students. When students evaluated with a specific teacher in mind,

enthusiasm for teaching was rated higher than fairness to all students with the first two characteristics staying the same. Overall, there was considerable agreement between faculty and student ratings of teaching effectiveness. When both students and faculty evaluated ten traits specified by Baum and Brown (1980), they found that students indicated the following three traits as most important: lectures easy to outline, entertaining lectures, and faculty identification of what is important for exams. Faculty chose five traits as most important, two of which were student oriented: expect students to be prepared and to demonstrate creative thinking on exams. Three were faculty oriented: emphasized concepts, stressed applications, and has high grading standards.

Feldman (1988) found that students placed more importance on teachers stimulating students' interest, teachers' elocutionary skills, availability and helpfulness, concern for students, showing respect for students, and being friendly. Faculty placed more importance on teachers encouraging self-initiated learning, challenging students intellectually, encouraging students' independent thought, motivating students to do their best, setting high standards of performance, and being enthusiastic for the subject or for teaching.

Romine (1974) found that an effective university instructional climate included instructors who: made written materials available to students, were dynamic and personable, were enthusiastic about their courses, appeared sincerely interested in and respectful of students, demonstrated knowledge of their fields of study, were well prepared for their courses, and were well organized. It was also desirable that the instructor communicated well with students; knew how to teach as well as what to teach; and employed fair, impartial, and reasonable assessment.

The only studies in which faculty were asked to evaluate their own teaching using the same assessment instrument as that used by students were conducted by Marsh (1982) and Marsh, Overall, and Kesler (1979). Their studies revealed student-faculty agreement on factors in every dimension measured.

Limited investigations looked at the evaluation of teaching effectiveness and research involvement and productivity together and the effect of one on the other. Freidrich and Michalak (1983) studied instructor characteristics such as knowledgeable, interest and enthusiasm, presentation, preparedness, and explanations of the course as well as availability for consultation, feedback on student performance, promptness in returning work, and the professor's personality. The researchers obtained faculty data including number and quality of publications, research in progress, programs of study and involvement in professional activities. A slight association was found between faculty members who demonstrated research productivity and were considered effective teachers. The researchers found no association between faculty members who were less productive in the research arena yet considered effective teachers. Luehrs and Brown (1992) conducted a study using student evaluation data and faculty publication activity. Their results did not support the idea that research activity, as measured by number of publications, had any effect on teaching effectiveness. Instructors' attitudes and knowledge of subject, however, had a positive association with students' evaluation of instructors' teaching effectiveness.

Research Activity

Along with effective teaching, an increased emphasis has been placed on research productivity and its impact on teaching effectiveness. Marsh (1984) indicated that research helps instructors keep apprised of new developments in their field and to stimulate their thinking. Therefore, he suggested that research should provide a basis for predicting a positive correlation between research activity and students' evaluations of teaching effectiveness. Blackburn (1974) believed that a faculty member must be engaged in scholarship in order to be a first rate teacher. Further, a professor who neglected teaching responsibilities for the sake of publications results in unsatisfactory classroom performance. Hughes (1991) suggested that research is a priority activity for faculty and academic departments because it represents a means to achieve national prestige for the department and career advancement for the faculty member.

When research involvement was considered, Hoyt and Spangler (1976) found that overall student ratings of teaching effectiveness were unrelated to the degree to which faculty members were involved with research with three notable exceptions. First, students perceived faculty members with heavy research responsibilities appeared to set higher academic standards than those less involved in research. Second, students perceived themselves to have learned when the faculty had heavier research responsibilities. Third, courses were perceived as more difficult when taught by faculty with heavy research responsibilities.

Moses (1990) found that the majority (90%) of the faculty surveyed in four disciplines agreed that their teaching was enhanced by their research. Jauch (1976) surveyed faculty in 23 departments and also found that 95% either agreed or strongly agreed that research increases teaching effectiveness, while 89% indicated that a good researcher does not have to be a good teacher. Only 23% of the faculty indicated that a good teacher must conduct research, 62% either disagreed or strongly disagreed with this statement. When time became a factor, 23% of the faculty agreed with the statement “time devoted to research detracts from teaching” while 61% disagreed.

A number of researchers have indicated that research should enhance teaching (Markie, 1994; Nazementz, 1994; Parilla, 1986; Simpson, 1993). Markie (1994) indicated that it is the obligation of a professor to engage in research that supports teaching by maintaining and increasing knowledge. He suggested that the primary function of a professor is to help students achieve intellectual and emotional maturity by learning. In order for a professor to help students achieve this, scholarship is required and familiarity with current research is necessary. The act of conducting interpretive, rationalistic scholarship is necessary to understand the results of basic research, to organize facts and information for quality teaching, and to maintain currency in one’s teaching field (Parilla, 1986). Nazementz (1994) indicated that faculty must perform research activities in order to prepare students to succeed in expanding technologies and compete globally.

There are also studies that have reported no relationship between teaching and research (Volkwein & Carbone, 1994; Ramsden & Moses, 1992; Shore, Pinker & Bates, 1990). These studies have indicated that little evidence exists to support the argument that research enhanced teaching; however, they found even less evidence to support that research was harmful to teaching.

Ruddick and Hopkins (1985) indicated that the “teacher as researcher” role rests on two principles: first, that teachers’ research is linked to the strengthening of teachers’ judgment and consequently to the self-directed improvement of practice and second, that the most important focus for research is the curriculum. “The responsibility of teachers, at all levels, is to free students from the insularity of their own minds, prevent them from lodging in the comfortable branches of the teacher’s thought, and to try instead to foster a less cautious and confined exploration of knowledge: one that confers on those who seek it, in a spirit of critical inquiry” (Ruddick & Hopkins, 1985, p.3).

Availability of Faculty

The issue of instructor availability for student consultation, either related to coursework or not, has received minimal attention in the research literature. Lamport (1993) reviewed the literature and notes that research supports the view of the faculty member as a socializing agent in students’ college experience. A link between instructor availability to students and students’ perceptions of teaching effectiveness has been rarely studied.

Markie (1994) discussed the obligations of the faculty member to students outside the classroom. He indicated that often a student’s academic crisis is related to a personal issue. Yet he believes that professors do not have an obligation to contact a student to determine reasons for an academic problem. Markie suggested that there is no general obligation for professors to interact with students beyond their courses. However, he pointed out, if faculty do interact with students outside the classroom, the perception of the university’s educational environment is strengthened. However, Markie (1994) cautioned that friends exchange private information, which

sometimes is inappropriate in a student-faculty relationship. He stated that professors are “fundamentally obligated to give all students equal consideration in instruction, advising, and evaluation” (Markie, 1994, p.70) and any friendship that is established with students can prevent the professor from fulfilling this obligation. Markie effectively reminded the reader of the fine line existing between responding to students’ requests and being fair to all students.

Research Questions

The purpose of this study was to investigate students’ and faculty members’ perceptions of instructor teaching effectiveness, research activity, and availability to students within Research II universities, specifically within the Colleges/Schools of Human Sciences and Engineering. The following research questions were developed for this study:

1. Do students have shared perceptions of faculty teaching effectiveness, faculty research activity, and faculty availability by college/school affiliation.
2. Do faculty have shared perceptions of faculty teaching effectiveness, faculty research activity, and faculty availability by college/school affiliation.
3. Do faculty and students have shared perceptions of faculty teaching effectiveness, faculty research activity, and faculty availability within each college/school affiliation.
4. Do faculty and students have shared of faculty teaching effectiveness, faculty research activity, and faculty availability due to faculty academic rank.
5. Do faculty and students have shared perceptions of faculty teaching effectiveness, faculty research activity, and faculty availability due to faculty years in academic position.

Methodology

Samples

Fifteen Research II universities that contained both Colleges/Schools of Human Sciences and Engineering were selected for participation in this study (A Classification, 1994). The dean in

each of the 29 colleges/schools was contacted to solicit cooperation in choosing two faculty members within the college/school who satisfied specific criteria, for participation in the study. Criteria included: faculty with teaching and research responsibilities, and faculty recognized for teaching effectiveness and scholarly accomplishments. Evidence of effective teaching included: high student evaluations, high student performance on standardized tests or in competitions, and obtaining teaching grants and/or awards. Faculty were also required to be active researchers with scholarly output in the form of published articles, or other refereed materials, refereed presentations at national and/or international meetings, and/or juried design scholarship. Further, faculty were required to be teaching a junior or senior level class at the time of the survey. Selected faculty were asked by their dean to complete the faculty questionnaire, and to choose a junior or senior level class for inclusion in the study.

Questionnaire

Two questionnaires were developed for this study, one for students and one for faculty. The instruments consisted of 68 items minimally adapted from previous research studies and 15 items developed by the investigators. For example, an original item read, “the instructor puts material across in an interesting way” (Feldman, 1976). This was adapted for this study to read, “the instructor has an interesting presentation of subject matter.” In all sections, faculty and students survey items were identical except for subject replacement. For example: the student version read “My instructor has an enthusiasm for teaching,” while the faculty version stated, “I have an enthusiasm for teaching.”

The survey was organized into three main sections. The first section, **teaching effectiveness**, was divided into three sub-sections: instructor characteristics; classroom presentation; and evaluation, feedback, and reinforcement. Respondents were asked to indicate on a Likert-response scale (5=strongly agree, 1= strongly disagree) their agreement/disagreement with

statements regarding the instructor's characteristics; classroom presentation; and evaluation, feedback, and reinforcement practices.

The second section of the survey contained items to address the **research activity** of the instructor. Faculty were asked to indicate on a 5-point response scale (5=strongly agree, 1=strongly disagree) their agreement/disagreement with six statements regarding their research activity as related to teaching. The "don't know" category was added in the student survey to create a 6-point response scale due to the possible lack of knowledge by students regarding instructors' research activities. The first six statements in this section addressed whether the instructor included his/her or other research related to the course content of the class, and gave assignments that required using research journals. Research interest, knowledge, and accomplishments were also addressed. The next six items required a Likert-type response scale (5=always, 3=sometimes, 1=never, 0=don't know) that addressed the extent to which the instructor used results of his/her research in the class, and respondents' perceptions of the relationship between teaching and research and vice versa. The last three items in this section of the student survey asked the student to indicate the extent that the instructor obtained funding, published manuscripts or books, and participated in presentations or design shows/exhibits. The last two questions in the research activities section were open-ended and asked respondents to define the purpose of research and the relationship between research and instruction.

The third section of the questionnaire, **availability to students**, contained twelve items regarding the instructor's availability to students outside of scheduled office hours and how accessible the instructor was to students. Ten items were minimally adapted for this section and two items were added by the investigators. The demographic section of the student survey consisted of items regarding gender, residential status, age, academic classification, academic college/school, and academic department. A faculty background section consisted of demographic items including gender, age, academic rank, college/school affiliation, departmental affiliation, and

total full-time years teaching. The faculty survey also included a section for the faculty to identify responsibility percentages, hours spent advising, contact hours spent teaching, and involvement in service both within and outside the university.

Data Collection

The dean of each of the 29 colleges/schools was sent two questionnaire packets. Each packet contained a faculty questionnaire and 25 student questionnaires. Once the faculty member completed the faculty questionnaire, he/she was asked to select one junior or senior level class that he/she was currently teaching. The dean's office was responsible for distributing the student questionnaires to classes selected by the faculty. The students completed the questionnaires during class and submitted completed questionnaires to a class representative who turned them into the dean's office. The dean's office returned all questionnaires to the investigator in a self-addressed stamped envelope. Two weeks after the initial mailing, a postcard was sent to each college/school reminding each dean of the deadline date and again asking for his/her cooperation. Those colleges/schools that did not respond by the given date were sent a follow-up letter.

Results

Of the 29 total colleges/schools selected to participate, 19 colleges returned the questionnaires, of which 11 colleges (57.9%) were Human Sciences and 8 (42.1%) were Engineering. One university had both Human Sciences and Engineering within the same college therefore, four faculty were selected from this college. Since each college/school dean was asked to choose two faculty members, 60 faculty respondents were possible. Of the 60 possible faculty respondents, 34 (56.7%) faculty returned completed questionnaires, with 21 (61.8%) from Human Sciences and 13 (38.2%) from Engineering. Of the 697 students who returned questionnaires, 425 (61.0%) were Human Sciences students, 262 (37.6%) were Engineering students and 8 (1.1%) were from other colleges/schools which were included in the study. A total of 695 usable responses were returned. Two (0.30%) students did not provide their college affiliation. Two sets

of student surveys did not have a corresponding faculty survey and two sets of faculty surveys did not have corresponding student surveys. Thirty-two faculty surveys were successfully paired with student surveys.

The faculty sample consisted of 20 males and 14 females; 12 assistant professors, 13 associate professors, and 9 full professors; and were employed 4 to 35 years. The faculty age ranged from 33 to 59. The student sample consisted of 300 males and 292 females, six students did not provide their gender. Of the 697 students who responded to the survey, 647 were residents of the country and 36 were international students. The students' age ranged from 18 to 52 with 74% being 20 to 24 years old. Eleven students were sophomores, 156 were juniors, 495 were seniors, and 31 were graduate students.

Student Perceptions by College/School Affiliation

Do students have shared perceptions of faculty teaching effectiveness, research activity, and availability? All items of the survey were treated to the t-test procedure to determine if significant differences occurred between students in Human Sciences and Engineering. Results indicated Human Sciences students rated their instructors higher than Engineering students rated their instructors on 45 of the 57 items regarding teaching effectiveness.

Teaching. Results of the first teaching effectiveness sub-section, instructor characteristics, revealed that almost all items were rated 4.00 or higher on a Likert scale. In addition, some significant differences by colleges were found. Engineering students rated their instructors significantly higher than Human Sciences students rated their instructors for 4 of the 5 items found to be significant. Engineering students perceived their instructors to be significantly more personable, dynamic, and energetic than Human Sciences students perceived of their instructors. The only item in which Human Sciences students perceived their instructors significantly higher than Engineering students was instructor conscientiousness about instructional responsibilities.

The second teaching sub-section, Human Sciences students rated their instructors significantly higher for 11 of the 31 items in this section. These eleven items were related to the instructors' organizational skills, presentation techniques, and classroom interaction as shown in Table 1. The largest significant difference found between Human Sciences and Engineering student responses was related to the objectives of the course being clearly stated by the instructor which Human Sciences students rated significantly higher than Engineering students.

Insert Table 1

When responses to the third teaching effectiveness sub-section were compared, Human Sciences students rated their instructors significantly higher for five, evaluation, feedback, and reinforcement items as shown in Table 1. These items addressed the instructors' exam and assignment practices as well as his/her grading information. The means for this section were somewhat lower than for the other two sub-sections indicating students in both Human Sciences and Engineering did not perceive their instructors were doing as well at evaluating and giving feedback as the students expected.

Research. When students' responses to faculty research/scholarly activities items were compared by discipline, Human Sciences students again rated their instructors significantly higher for seven of the twelve items shown in Table 2. The largest difference between Human Sciences and Engineering student responses occurred for the instructor giving assignments which required the use of research journals. Engineering students strongly disagreed while Human Sciences students agreed that their instructors gave assignments which required research journal use. Human Sciences students rated their instructors significantly higher than Engineering students rated their instructors for being more involved in research/scholarly. Human Sciences students

also rated their instructors significantly higher than Engineering students rated their instructors for sharing results of their research/scholarly activities with their classes.

Table 2 also shows Engineering students perceived that the instructors' research/scholarly activities rarely detracted from his/her teaching effectiveness or the instructors' teaching rarely detracted from his/her research/scholarly activities. Human Sciences students indicated that their instructors' research/scholarly activities almost never detracted from his/her teaching effectiveness or the instructors' teaching almost never detracted from his/her research/scholarly activities. No significant difference was found between Human Sciences and Engineering student responses for three items, faculty obtaining grants, publishing, and giving presentations. Both groups' responses varied on these items from a low of 3.05 to 3.55, indicating they perceived their instructors only sometimes participated in these activities. It is particularly interesting that Human Sciences students reported significant agreement with items regarding faculty knowledge of current research and accomplishment in research/scholarly activities as well as showing a sincere interest in their research.

Insert Table 2

Availability. In general, both groups of students rated their faculty high on most items indicating that the students reported faculty being available to them outside of class. Although the pattern was similar for both groups of students, Human Sciences students rated their instructors significantly higher than Engineering students rated their instructors on nine of twelve items as shown in Table 3. Human Sciences students rated their instructors significantly higher than Engineering students rated their instructors for being available for: academic course information; personal problem consultation; and campus issues discussions. Human Sciences students perceived their instructors were significantly more available for career concern discussions than

Engineering students perceived of their instructors. Engineering students perceived their instructors were significantly more available for intellectual information discussions than Human Sciences students perceived of their instructors. Students from both colleges were in agreement that they felt comfortable approaching their instructors outside of class and agreed that their instructors were available other times besides office hours.

Insert Table 3

Faculty Perceptions by College/School Affiliation

Do faculty have shared perceptions of faculty teaching effectiveness, research activity, and availability to students? When Human Sciences and Engineering faculty responses were compared, only seven out of seventy-seven items were found to be significantly different using the t-test procedure. Both groups of faculty responded very positively to almost all items, indicating faculty from both colleges highly agreed on the majority of items.

Teaching. In the first teaching effectiveness sub-section, **instructor characteristics**, Human Sciences faculty rated themselves significantly higher than Engineering faculty on only one item, being personable as shown in Table 4. The second sub-section, classroom presentation, yielded only two significant differences. Human Sciences faculty rated themselves significantly higher than Engineering faculty rated themselves on presenting other points of view. However, Engineering faculty perceived themselves summarizing major points significantly more frequently than Human Sciences faculty. No significant differences were found between Human Sciences and Engineering faculty responses regarding items in the third sub-section; evaluation, feedback, and reinforcement.

Insert Table 4

Research. One of the greatest differences between Human Sciences and Engineering faculty responses was found for giving assignments which required students to use research journals. Human Sciences faculty agreed that they gave assignments which required students to use research journals while Engineering faculty disagreed. The only other significantly different response between faculty in Human Sciences and Engineering regarded sharing results of his/her research/scholarly activities with the class. Although the responses were similar, Human Sciences faculty perceived themselves sharing results of research/scholarly activities significantly more than Engineering faculty believed they shared their activities.

Availability. Significant differences for two items were found with Human Sciences faculty perceiving themselves as welcoming students seeking advice and being accessible to students significantly more than Engineering faculty perceived themselves. In general, both groups of faculty rate themselves with a 4.00 or higher on the majority of the availability items. The major exception was the instructor being available for informal socializing with both group means of 2.67 indicating disagreement with the statement.

Student and Faculty Perceptions within College/School Affiliation

Do faculty and students have shared perceptions of faculty teaching effectiveness, research activity, and availability? Students and faculty responses were compared within each college/school, Human Sciences and Engineering, using the t-test statistical procedure. Human Sciences faculty and student responses varied significantly for twice as many items (25) compared with Engineering faculty and students (12) as shown in Table 5.

Insert Table 5

Teaching. Both Human Sciences and Engineering faculty strongly agreed that they were conscientious about instructional responsibilities while their students slightly agreed. Human Sciences faculty rated themselves significantly higher for having more sincere, personal interest, respecting students and being fair to all students than their students rated them. However, both Human Sciences faculty and student means were above 4.00 indicating agreement for both groups. Engineering students perceived their instructors were able to direct discussion significantly more and were more personable than Engineering faculty perceived themselves to be. Engineering students also perceived their instructors as having an interesting style of classroom presentation significantly more than the faculty perceived themselves.

An interesting discovery was that there were no significant differences found between Engineering faculty and their students for any items relating to the instructors' classroom presentation. Significant differences were identified for only three of thirty between Human Sciences faculty and students. Although classroom presentation items were rated highly, Human Sciences faculty rated themselves significantly higher than their students rated them on knowing what to teach, promoting student-teacher discussion, and using more than one approach as necessary. Overall, this indicates that students and faculty in both Human Sciences and Engineering held strong agreement regarding perceptions of instructors' classroom presentation.

Of the eight evaluation, feedback, and reinforcement items, six significant differences were found between Human Sciences faculty and students and three between Engineering faculty and students. Human Sciences students perceived that exams were unreasonably detailed and stressed unnecessary memorization significantly more than the faculty. Human Sciences faculty, however, perceived they informed students of progress and gave assignments which required the use of

research journals more than their students perceived of them. Both Human Sciences and Engineering faculty rated themselves significantly higher than their students rated them on realizing when students were bored or confused and giving exams and other course requirements which were worthwhile and reasonable in expectations. Human Sciences faculty rated themselves significantly higher than their students rated them on informing students of their progress and performance. Engineering faculty rated themselves significantly higher than their students on relating course content to existing research findings and methods.

Research. Faculty and student responses for research/scholarly activities were also compared using the t-test statistical procedure. An interesting point in this section is that no significant difference was found between faculty and student perceptions in either colleges as to the extent research detracted from teaching. Only three of nine items were found significantly different between students and faculty in both Human Sciences and Engineering colleges/schools. Engineering faculty perceived relating their research/scholarly activities to the class significantly more than their students perceived. Engineering faculty perceived that they were significantly more actively engaged and accomplished in research than their students perceived they were. When asked the extent to which results of the instructors' research/scholarly activities were related to the class, Engineering and Human Sciences faculty indicated they related results of their research/scholarly activities significantly more than their students indicated. Human Sciences faculty also perceived they gave assignments which required students to use research journals significantly more than their students perceived. Human Sciences faculty indicated that teaching sometimes detracted from his/her research/scholarly activities while their students indicated that it rarely detracted.

Availability. Human Sciences faculty and students differed significantly on six of the twelve items regarding availability and Engineering faculty and students differed on four of the twelve items. Table 5 shows Engineering faculty perceived themselves being available for

intellectual discussion significantly more than their students perceived them to be. Both Human Sciences and Engineering faculty indicated they were available other times besides office hours significantly more than their students indicated. Human Sciences faculty strongly agreed that they communicated their office hours and were accessible to students significantly more than their students perceived. Human Sciences faculty rated themselves significantly higher than their students on being available for academic course information and career concerns.

Faculty and Student Perceptions by Academic Rank

Do faculty and students have shared perceptions of faculty teaching effectiveness, research activity, and availability by academic rank? Prior to statistical testing, all assistant, associate, and full professors were pooled from both disciplines. T-tests were then performed to determine if differences in faculty and student ratings of teaching effectiveness, faculty research activities, and faculty availability to students occurred due to the academic rank of the instructor. The most significant differences based on rank, were found between students and full professor faculty. Table 6 shows responses differed for three items between assistant professor faculty and their students, thirteen items for associate professor faculty and their students, and seventeen items for full professor faculty and their students.

Teaching. In the first teaching effectiveness sub-section, **instructor characteristics** assistant professor faculty and their students held strong agreement on all teaching effectiveness items with no significant differences occurring between the two groups. Associate professor faculty rated themselves significantly higher than their students rated them for respecting students as individuals, being conscientious about instructional responsibilities and being fair to all students. Full professor faculty also rated themselves significantly higher than students for being conscientious about their instructional responsibilities as well as being sincerely interested in students, as indicated in Table 6.

Insert Table 6

When sub-section II, classroom presentation, responses were compared, it is interesting to note students of associate professor faculty rated their instructors significantly higher than their faculty rated themselves while full professor faculty rated themselves significantly higher than their students rated them for explaining clearly and being easy to understand and follow. Associate professor faculty perceived they encouraged students to express themselves freely and openly significantly more than their students perceived. However, ratings for both associate professor faculty and students were above 4.00 indicating there was still agreement on the item even though responses were found to differ significantly. Full professor faculty perceived they summarized material which aided retention and related course material to real life situations significantly more than their students perceived.

Responses to the third teaching effectiveness sub-section, **evaluation, feedback and reinforcement**, revealed both associate and full professor faculty perceived they realized when students were bored or confused significantly more than their respective students indicated. Students of full professor faculty rated their instructors significantly higher on two items regarding examinations being unreasonably detailed and stressing unnecessary memorization. The student means, however, were fairly low (2.71 and 2.69 respectively) indicating disagreement with these two items. Full professor faculty also perceived themselves seeking feedback from students about the course and informing students of their progress and performance significantly more than their students perceived. Full professor faculty indicated they gave examinations and assignments that were worthwhile and reasonable in expectations significantly more than their students indicated they did.

Research. Associate and full professors perceived themselves sharing their research/scholarly activities significantly more than their students indicated. Associate professors rated themselves significantly higher than their students rated them on being actively engaged and accomplished in research. Associate professors indicated they shared results of their research/scholarly activities significantly more than their students indicated did. Like assistant professors and their students, associate professors also perceived teaching sometimes detracted from their research/scholarly activities, while their students perceived it rarely detracted.

Availability. When responses were compared regarding faculty's availability to students only two statements differed significantly between assistant professors and their students, three between associate professors and their students, and five between full professors and their students (see Table 6). All three groups of faculty (assistant, associate, and full professors) perceived stronger agreement than their respective students in regard to being available for academic course information and at other times besides office hours. Associate professors also rated themselves significantly higher than their students rated them for communicating their office hours to the class. Full professors perceived themselves being available for career concerns and intellectual discussions outside of class significantly more than their students. Students of full professors, however, rated their instructors' availability for informal socializing significantly higher than the faculty rated themselves.

Faculty and Student Perceptions by Years Employed

Do faculty and students have shared perceptions of faculty teaching effectiveness, research activity, and availability by years employed? T-tests were performed to determine if significant differences occurred in faculty and student responses to items regarding teaching effectiveness, faculty research activities, and faculty availability by number of years faculty had been employed in a full-time academic position. Faculty were divided into three groups: faculty employed 4 to 7 years; faculty employed 8 to 13 years; and faculty employed over 14 years.

Responses for faculty employed 4 to 7 years differed significantly from their students' responses on 11 of the 75 survey items. Faculty employed 8 to 13 years and their students differed significantly on nine items. It is interesting to note that students of faculty employed 8 to 13 years held stronger agreement than their faculty on five of the nine items as shown in Table 7. This is a different response pattern than for students of either faculty employed 4 to 7 years and over 14 years. Responses to items differed significantly between faculty employed over 14 years and their students on 19 items.

Insert Table 7

Teaching. When **instructor characteristics** (sub-section I of teaching effectiveness), were compared both faculty employed 4 to 7 years and faculty employed over 14 years rated themselves significantly higher than their students rated them for being fair to all students. Faculty employed 4 to 7 years also rated themselves significantly higher than their students rated them for respecting students as individuals. Faculty employed over 14 years rated themselves significantly higher than their students rated them for having enthusiasm for teaching and being sincerely interested in students. Faculty employed 8 to 13 years gave themselves the highest rating ($M=5.00$, strongly agree) for being conscientious about their instructional responsibilities which was significantly higher than the ratings by their students.

No significant differences were found between faculty employed 4 to 7 years and their students for sub-section II, **classroom presentation**. Interestingly, students of faculty employed 8 to 14 years rated their instructors significantly higher than the faculty rated themselves in regard to explaining clearly, being easy to understand and follow, helping students answer their own questions as well as comparing and contrasting the implications of various theories. Faculty employed over 14 years rated themselves significantly higher than their students rated them for

knowing what to teach, encouraging students to express themselves freely, and relating course material to real life situations. However, student responses to these items ranged from 4.12 to 4.29, indicating they also agreed with these items.

Within sub-section III, evaluation, feedback and reinforcement, all three groups of faculty rated themselves significantly higher than their students for realizing when students were bored or confused. Faculty employed over 14 years rated themselves significantly higher than their students rated them for seeking feedback from students and informing students of their progress and performance. Faculty employed over 14 years also rated themselves higher than their students rated them on giving exams and other requirements that are worthwhile and reasonable in expectations. Students of faculty employed over 14 years rated their instructors significantly higher than the faculty rated themselves for giving exams which were unreasonably detailed and stressing unnecessary memorization. However, mean responses were low indicating both faculty employed over 14 years and their students disagreed with these items.

Research. Faculty employed 4 to 7 years and their students differed significantly on several items regarding research/scholarly activities. Faculty employed 4 to 7 years and faculty employed over 14 years perceived themselves relating their research activities to their classes significantly more than their students' perception indicated this occurred. Faculty employed 4 to 7 years and faculty employed 8 to 14 years rated themselves significantly higher than their students rated them on knowing current research literature in their field. Faculty employed 8 to 14 years also perceived that teaching sometimes detracted from their research which differed significantly from their students who perceived that teaching rarely detracted from research. Faculty employed 4 to 7 years rated themselves with the highest score ($M=5.00$, strongly agree) for being engaged and accomplished in research. Faculty employed 4 to 7 years also rated themselves significantly higher than their students rated them for being sincerely interested in research. Although significantly different, students agreed that their instructors were engaged and accomplished in

research/scholarly activities as well as knowing current research and demonstrating a sincere interest in research. Faculty employed 4 to 7 years also perceived themselves relating results of their research/scholarly activities to the class significantly more than their students thought they related this information.

Availability. When **availability to students** responses were compared, all three faculty groups rated themselves higher than their students rated them for being available for academic course information outside of class. Faculty employed 4 to 7 years and faculty employed over 14 years rated themselves significantly higher than their students rated them on being available other times besides office hours. It is fascinating that students of both faculty employed 8 to 14 years and faculty employed over 14 years rated their instructors significantly higher than faculty rated themselves for being available for informal socializing outside of class. However, faculty employed over 14 years rated themselves significantly higher than their students rated them on being available for career concern discussions as well as welcoming students seeking advice and being accessible to students outside of class. It is interesting to note that students of faculty employed 8 to 14 years rated items regarding the availability of their instructors higher than instructors ratings of themselves on eight of the twelve items for this section. It would appear, regardless of significance, that faculty employed 8 to 14 years were perceived by their students as being available for a variety of reasons.

Discussion

The purpose of this study was to identify similarities and dissimilarities between faculty and students in their perceptions regarding faculty teaching effectiveness, faculty research/scholarly activities, and faculty availability to students. In general, students rated faculty high. Human Sciences students had higher ratings than Engineering students for the majority of survey items. Faculty from both colleges also rated themselves high on the majority of items with only seven of seventy-seven items significantly different.

When data were analyzed by college students and faculty in both colleges were clearly similar in their perceptions regarding the instructors' classroom presentation. Human Sciences and Engineering students both held the perception that their instructors explained clearly and were easy to understand and follow more than their respective faculty perceptions. Interestingly, Engineering faculty perceived themselves summarizing major points frequently, relating new ideas to familiar concepts, and demonstrating the importance and significance of the subject matter more than Human Sciences faculty. This could be directly attributed to the nature of Engineering, where problems are solved by more solid, concrete methods using specific sets of criteria.

Findings show that perceptions of assistant professors and those employed 4 to 7 years differed little from their students' perceptions regarding their teaching effectiveness, research/scholarly activities, and availability to students. Even significantly different responses were very similar showing high agreement between these faculty and their students. According to their students, full professors and those employed over 14 years were not doing a good job of evaluation, feedback, and reinforcement. Students responses were consistent regarding this section, indicating these faculty did not necessarily seek feedback, inform students of progress, or give examinations and assignments which were worthwhile and reasonable. Full professors and those employed over 14 years were also perceived to be less available than their counterparts with one exception, informal socializing. Students of these same two groups of faculty felt their instructors were more available than students of assistant or associate professors or those employed either 4 to 7 years or 8 to 13 years in regard to informal socializing. All three groups of faculty (assistant, associate and full professors) indicated they were available for academic course information and at other times besides office hours. However, their students did not necessarily agree.

In general, faculty employed 4 to 7 years and those employed over 14 years perceived themselves to be more available than their students perceived them to be with one exception,

students feeling comfortable approaching the instructor. Students felt that they were more comfortable approaching their instructor than the faculty thought they were. However, a different pattern developed for faculty employed 8 to 13 years and their students. Students of these faculty perceived that their instructors were more available than faculty perceived they were.

Since the most items found significant were for faculty employed over 14 years and their students and full professor faculty and their students, it would seem that the higher the rank of the faculty and the longer they were employed, the more perceptual differences existed.

It should be emphasized that the selected faculty had been recognized for their teaching effectiveness, including but not limited to high student evaluations, high student performance on standardized tests or in competitions, and teaching grants and/or awards. This could contribute to the similarity of responses for two-thirds to three-quarters of the items between students and faculty in both colleges. Also students were in their junior or senior level year, which could attribute to the agreement they had with their faculty. These students could be more in tune with the roles and responsibilities of a faculty member and could have developed certain expectations of faculty in their fields more so than first and second year students.

This study is one of a few that have compared faculty and student responses using the same instrument. For the most part, junior/senior level students' perceptions do not differ much from perceptions of faculty in either college, more so for Human Sciences than for Engineering. Existing results could also be compared to data obtained from freshman/sophomore level students to help determine if students at different class levels differ in their perceptions of teaching effectiveness, research/scholarly activities, and availability to students. Additional research needs to be conducted to determine if perceptions between faculty and students vary according to a variety of different colleges. Another way to determine if different perceptions exist between faculty and students would be to survey different university classifications. This could help

determine if the same similarities and differences are being observed across a variety of campuses which have different enrollment, mission statements, and teaching philosophies.

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Table 1
Significant Comparisons of Students' Perceptions by College Regarding Faculty Teaching Effectiveness Characteristics.

Characteristics	Humans Sciences (n=425)		Engineering (n=262)		<i>t value</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
<u>Instructor Characteristics</u>					
Instructor has a sense of humor	4.16	0.928	4.48	0.730	-5.105*
Instructor is dynamic and energetic	4.17	0.886	4.29	0.776	-2.073*
Instructor has an interesting style of classroom presentation	3.64	1.092	3.95	0.937	-3.950*
Instructor is personable	4.12	0.946	4.26	0.793	-2.112*
Instructor is conscientious about instructional responsibilities	4.35	0.796	4.16	0.836	3.019*
<u>Classroom Presentation</u>					
Instructor presents other points of view	4.25	0.874	3.93	0.867	4.680*
Instructors' presentation and questions are thought provoking	4.11	0.924	3.95	0.845	2.336*
Instructor compares and contrasts various theories	4.15	0.897	3.98	0.866	2.551*
Instructor promotes teacher-student discussion	4.12	0.971	3.81	0.961	4.058*
Instructor encourages student comments	4.09	0.926	3.87	0.821	3.134*
Instructor summarizes material which aided retention	3.82	0.908	3.61	0.926	2.885*
Instructor clearly states objectives of the course	4.31	0.830	3.98	0.881	4.868*
Instructor has thorough knowledge of subject matter	4.69	0.629	4.57	0.652	2.352*
Instructor is prepared and organized	4.54	0.721	4.21	0.906	4.999*
Instructors' presentations are clear and understandable	4.24	0.949	4.06	0.909	2.439*
Instructor has clear objectives and requirements	4.39	0.779	4.05	0.863	5.197*
<u>Evaluation, Feedback and Reinforcement</u>					
Examinations stress unnecessary memorization	2.39	1.267	2.04	1.044	3.829*
Instructor returns examinations and assignments promptly	4.05	1.027	3.68	1.257	3.948*
Instructor informs students of progress and performance	3.65	1.069	3.31	1.059	4.042*
Instructors' marking and grading is clearly explained and fair	4.03	1.029	3.66	1.008	4.603*
Examinations and assignments are worthwhile and reasonable	3.83	1.077	3.64	0.984	2.326*

* $p \geq 0.05$

Note. 5-point response scale with 5=strongly agree, 3=neutral, 1=strongly disagree.

Table 2
Significant Comparisons of Students Perceptions of Faculty Research/Scholarly Activities by College/School.

Characteristics	Human Sciences (n=425)		Engineering (n=262)		<i>t-value</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Instructor relates his/her research/scholarly activities to the class ^a	4.22	0.951	3.61	1.096	6.841*
Instructor is accomplished in research/scholarly activities ^a	4.50	0.722	4.21	0.775	4.054*
Instructor relates course content to existing research/scholarly findings and methods ^a	4.35	0.853	3.69	1.007	8.012*
Instructor knows current research/scholarly literature in his/her field ^a	4.53	0.753	4.23	0.825	4.386*
Instructor demonstrates a sincere interest in research/scholarly activities ^a	4.49	0.831	4.22	0.845	3.572*
Instructor gives assignments which require the student to use research journals ^a	3.59	1.536	1.33	2.21	11.743*
Extent instructor shares results of his/her research/scholarly activities with the class ^b	3.36	1.167	2.67	1.176	7.045*
Extent instructor's research/scholarly activities detracts from his/her teaching effectiveness ^b	1.73	1.072	2.00	1.154	-2.691*
Extent instructors' teaching detracts from his/her research/scholarly activities ^b	1.79	0.987	2.47	1.118	-5.853*

* $p \geq 0.05$

Note. ^a based on a 5-point response scale with 5=strongly agree, 3=neutral, 1=strongly disagree.

^b based on a 6-point response scale with 5=always, 3=sometimes, 1=never, 0=don't know. Student "don't know" responses were not included in the analysis.

Table 3
Significant Comparisons of Students' Perceptions of Faculty Availability to Students by College/School.

Characteristics	Humans Sciences (n=425)		Engineering (n=262)		<i>t-value</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
<u>Availability to Students Characteristics</u>					
Instructor is available for academic course information	4.32	0.807	4.02	0.995	4.114*
Instructor is available for discussion about career concerns	4.10	0.887	3.79	1.010	4.064*
Instructor is available for personal problem consultation	3.74	1.061	3.41	1.114	3.864*
Instructor is available for discussion about intellectual information	4.02	0.994	3.83	0.956	2.597*
Instructor is available for discussion about campus issues	3.62	1.060	3.39	1.092	2.553*
Instructor welcomes students seeking advice	4.31	0.888	3.97	1.007	4.487*
Instructor is accessible to students	4.38	0.812	4.13	0.949	3.587*
Instructor's office hours are communicated	4.49	0.784	4.32	0.901	2.610*
Instructor's office hours are maintained	4.38	0.846	4.16	0.996	2.945*

* $p \geq 0.05$

Note. Based on a 5-point response scale with 5=strongly agree, 3=neutral, 1=strongly disagree.

Table 4
Significant Comparisons of Faculty Perceptions Regarding Faculty Teaching Effectiveness, Research Activities, and Availability to Students by College/School.

Characteristics	Humans Sciences (n=21)		Engineering (n=13)		<i>t-value</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
<u>Instructor Characteristics</u>					
Instructor is personable ^a	4.38	0.740	3.46	1.330	2.283*
<u>Classroom Presentation</u>					
Instructor presents other points of view ^a	4.33	0.856	3.46	1.126	2.394*
Instructor summarizes major points frequently ^a	3.71	0.717	4.38	0.869	-2.442*
<u>Research/Scholarly Activities</u>					
Instructor gives assignments which require research journals ^b	4.00	1.183	2.15	1.143	4.514*
Extent instructor shares results of their research activities ^c	3.81	0.813	3.23	0.599	2.214*
<u>Availability to Students</u>					
Instructor welcomes students seeking advise ^a	4.57	0.507	4.08	0.759	2.282*
Instructor is accessible to students outside of class ^a	4.67	0.483	4.00	0.577	3.629*

* $p \geq 0.05$

Note. ^a based on a 5-point response scale with 5=strongly agree, 3=neutral, 1=strongly disagree;

^b based on 6-point response scale with 5=strongly agree, 3=neutral, 1=strongly disagree, 0="don't know";

^c based on 6-point response scale with 5=always, 3=sometimes, 1=never, 0= "don't know".

Table 5

Significant Comparisons of Faculty and Student Perceptions Regarding Faculty Teaching Effectiveness, Research Activities, and Availability to Students within Each College.

Characteristics	Human Sciences			Engineering		
	Faculty (n=20) <i>M</i>	Students (n=425) <i>M</i>	<i>t</i> -value	Faculty (n=12) <i>M</i>	Students (n=262) <i>M</i>	<i>t</i> -value
<u>Instructor Characteristics</u> ^a						
Instructor shows personal interest in students	4.62	4.26	2.646*	--	--	--
Instructor is sincerely interested in students	4.62	4.22	2.891*	--	--	--
Instructor respects students as individuals	4.76	4.31	3.593*	--	--	--
Instructor is fair to all students	4.61	4.20	3.004*	--	--	--
Instructor is conscientious about his/her instructional responsibilities	4.71	4.35	3.354*	4.69	4.16	3.749*
Instructor demonstrates ability to direct discussion	--	--	--	3.69	4.20	-2.779*
Instructor has an interesting style of classroom presentation	--	--	--	3.54	3.95	-2.679*
Instructor is personable	--	--	--	3.46	4.26	-3.406*
<u>Classroom Presentation</u> ^a						
Instructor knows what to teach	4.71	4.37	3.124*	--	--	--
Instructor promotes teacher-students discussion	4.48	4.12	2.580*	--	--	--
Instructor uses more than one approach as necessary	4.24	3.92	2.169*	--	--	--
<u>Evaluation, Feedback, and Reinforcement</u> ^a						
Instructor gives exam questions which are unreasonably detailed	1.86	2.63	-4.222*	--	--	--
Instructor gives exams which stress unnecessary memorization	1.62	2.39	-4.438*	--	--	--
Instructor realizes when students are bored or confused	4.00	3.33	5.926*	4.08	3.45	2.169*
Instructor regularly informs students of their progress and performance and reinforces student learning	4.24	3.65	3.626*	--	--	--
Instructor gives exams and other course requirements which are worthwhile and reasonable in expectations	4.38	3.83	3.537*	4.15	3.64	3.082*

(table continues)

Characteristics	Human Sciences			Engineering		
	Faculty (n=20)	Students (n=425)	<i>t</i> -value	Faculty (n=12)	Students (n=262)	<i>t</i> -value
	<i>M</i>	<i>M</i>		<i>M</i>	<i>M</i>	
<u>Research/Scholarly Activities</u>						
Instructor is actively engaged and accomplished in research ^b	--	--	--	4.69	4.21	3.284*
Instructor relates research/scholarly activities to class ^b				4.15	3.01	2.324*
Instructor gives assignments which require students to use research journals ^b	4.00	3.33	1.513*	--	--	--
Extent instructor's teaching detracts from research ^c	2.86	1.79	3.616*	--	--	--
Extent instructor shares results of research/scholarly activities to the class.	3.81	3.36	2.398*	3.23	2.67	3.084*
<u>Availability to Students^a</u>						
Instructor is available for academic course information outside of class	4.71	4.31	3.659*	--	--	--
Instructor is available for career concerns outside of class	4.48	4.10	2.715*	--	--	--
Instructor is available for intellectual discussions outside of class	--	--	--	4.15	3.79	-4.583*
Instructor is available for informal socializing outside of class	2.62	3.21	-6.370*	2.62	3.32	-4.734*
Instructor is accessible to students outside of class	4.67	4.38	3.649*			
Instructors office hours are communicated	4.76	4.49	3.687*	--	--	--
Instructor is available other times beside office hours	4.86	4.16	23.730*	4.62	4.07	8.954*

* $p \geq 0.05$

Note. ^a based on a 5-point response scale with 5=strongly agree, 3=neutral, 1=strongly disagree; ^b on a 6-point response scale with 5=strongly agree, 3=neutral, 1=strongly disagree, 0= don't know; ^c based on 6-point response scale with 5=always, 3=sometimes, 1=never, 0=don't know. Student "don't know" responses were not included in the analysis. Dashes (--) indicate no significant difference was found for the item.

Table 6

Significant Comparisons of Faculty and Students' Perceptions Regarding Faculty Teaching Effectiveness, Research/Scholarly Activities and Availability to Students by Faculty Rank.

Characteristics	Assistant Professors			Associate Professors			Full Professors		
	Faculty (n=12)	Student (n=243)	<i>t-value</i>	Faculty (n=12)	Student (n=203)	<i>t-value</i>	Faculty (n=8)	Student (192)	<i>t-value</i>
	<i>M</i>	<i>M</i>		<i>M</i>	<i>M</i>		<i>M</i>	<i>M</i>	
<u>Instructor Characteristics</u> ^a									
Instructor respects students as individuals	--	--	--	4.67	4.24	2.726*	--	--	--
Instructor is fair to all students	--	--	--	4.50	4.11	2.294*	--	--	--
Instructor is conscientious about his/her instructional responsibilities	--	--	--	4.67	4.27	2.561*	4.88	4.27	4.433*
Instructor is sincerely interested in students	--	--	--	--	--	--	4.75	4.18	4.885*
<u>Classroom Presentation</u> ^a									
Instructor encourages students to express themselves freely	--	--	--	4.50	4.12	2.252*	--	--	--
Instructor explains clearly and is easy to understand and follow	--	--	--	3.33	4.16	-2.851*	4.25	3.83	2.314*
Instructor summarizes material which aids retention	--	--	--	--	--	--	4.13	3.65	3.326*
Instructor relates course material to real life situations	--	--	--	--	--	--	4.88	4.20	4.755*
<u>Evaluation, Feedback and Reinforcement</u> ^a									
Instructor gives examinations questions which are unreasonably detailed	--	--	--	--	--	--	1.75	2.71	-2.141*
Instructor gives examinations which stress unnecessary memorization	--	--	--	--	--	--	1.38	2.69	-2.746*
Instructor realizes when students are bored or confused	--	--	--	4.00	3.51	6.318*	4.00	3.17	2.137*
Instructor regularly seeks feedback from students about the courses he/she teaches	--	--	--	--	--	--	4.00	3.19	1.991*
Instructor informs students of progress and performance	--	--	--	--	--	--	4.13	3.19	2.474*
Instructor's examinations and assignments are worthwhile and reasonable in expectations	--	--	--	--	--	--	4.62	3.47	5.737*

(table continues)

Characteristics	Assistant Professors			Associate Professors			Full Professors		
	Faculty (n=12)	Student (n=243)	<i>t</i> -value	Faculty (n=12)	Student (n=203)	<i>t</i> -value	Faculty (n=8)	Student (192)	<i>t</i> -value
	<i>M</i>	<i>M</i>		<i>M</i>	<i>M</i>		<i>M</i>	<i>M</i>	
<u>Research/Scholarly Activities</u>									
Instructor relates research/scholarly activities to class ^b	--	--	--	4.33	3.89	2.685*	4.75	4.05	3.774*
Instructor is actively engaged and accomplished in research ^b	--	--	--	4.75	4.25	3.223*	--	--	--
Extent instructor shares results of research to class ^c	--	--	--	3.75	2.94	3.421*	--	--	--
Extent instructor's teaching detracts from research ^c	2.92	1.97	2.425*	3.08	2.04	2.946*	--	--	--
<u>Availability to Students^a</u>									
Instructor is available for academic course information outside of class	4.50	3.79	3.443*	4.50	3.63	5.168*	4.88	3.85	5.377*
Instructor is available other times beside office hours	4.58	4.13	2.770*	4.75	4.05	2.272*	5.00	4.28	10.736*
Instructor is available for career concerns outside of class	--	--	--	--	--	--	4.75	4.02	2.226*
Instructor's office hours are communicated	--	--	--	4.75	4.35	2.734*	--	--	--
Instructor is available for intellectual discussions outside of class	--	--	--	--	--	--	4.75	4.09	2.033*
Instructor is available for informal socializing outside of class	--	--	--	--	--	--	2.63	3.51	-2.143*

* $p \geq 0.05$

Note. ^a based on a 5-point response scale with 5=strongly agree, 3=neutral, 1=strongly disagree; ^b based on 6-point response scale with 5=strongly agree, 3=neutral, 1=strongly disagree, 0=don't know; ^c based on a 6-point response scale with 5=always, 3=sometimes, 1=never, 0=don't know. Student "don't know" responses were not included in the analysis. Dashes (--) indicate no significant difference was found for the item.

Table 7

Significant Comparisons of Faculty and Students' Perceptions Regarding Teaching Effectiveness, Research/Scholarly Activities, and Availability to Students by Years of Faculty Employment.

Characteristics	4-7 Years			8-14 Years			Over 14 Years			
	Faculty (n=9)	Student (n=137)	<i>t-value</i>	Faculty (n=10)	Student (n=272)	<i>t-value</i>	Faculty (n=13)	Student (n=229)	<i>t-value</i>	
	<i>M</i>	<i>M</i>		<i>M</i>	<i>M</i>		<i>M</i>	<i>M</i>		
<u>Instructor Characteristics</u> ^a										
Instructor respects students as individuals	4.78	4.01	4.502*	--	--	--	--	--	--	
Instructor is fair to all students	4.67	3.94	3.775*	--	--	--	4.62	4.19	2.817*	
Instructor has enthusiasm for teaching	--	--	--	--	--	--	4.85	4.49	3.186*	
Instructor is sincerely interested in students	--	--	--	--	--	--	4.77	4.19	4.274*	
Instructor is conscientious about instructional responsibilities	--	--	--	5.00	4.47	11.905*	--	--	--	
<u>Classroom Presentation</u> ^a										
Instructor explains clearly and is easy to understand and follow	--	--	--	--	3.70	4.31	-2.103*	--	--	
Instructor helps students answer their own questions	--	--	--	--	3.30	4.02	-2.328*	--	--	
Instructor compares and contrasts the implications of various theories	--	--	--	--	3.80	4.20	-2.761*	--	--	
Instructor knows what to teach	--	--	--	--	--	--	--	4.69	4.29	2.786*
Instructor encourages students to express themselves freely	--	--	--	--	--	--	--	4.46	4.12	2.184*
Instructor relates course content to real life situations	--	--	--	--	--	--	--	4.69	4.21	3.317*
<u>Evaluation, Feedback, and Reinforcement</u> ^a										
Instructor realizes when students are bored or confused	4.22	3.51	2.018*	3.90	3.54	2.988*	4.00	3.19	5.986*	
Instructor gives exam questions are unreasonably detailed	--	--	--	--	--	--	1.77	2.59	-3.809*	
Instructor gives Exams which stress unnecessary memorization	--	--	--	--	--	--	1.54	2.60	-5.252*	
Instructor regularly seeks feedback from students about the course	--	--	--	--	--	--	3.92	3.27	2.081*	
Instructor regularly informs students of their progress and performance	--	--	--	--	--	--	3.92	3.26	2.239*	

(table continues)

Characteristics	4-7 Years			8-14 Years			Over 14 Years		
	Faculty (n=9)	Student (n=137)	<i>t-value</i>	Faculty (n=10)	Student (n=272)	<i>t-value</i>	Faculty (n=13)	Student (n=229)	<i>t-value</i>
	<i>M</i>	<i>M</i>		<i>M</i>	<i>M</i>		<i>M</i>	<i>M</i>	
<u>Evaluation, Feedback, and Reinforcement</u> ^a									
Instructor's exams and other course requirements are worthwhile and reasonable in expectations	--	--	--	--	--	--	4.38	3.55	4.259*
<u>Research/Scholarly Activities</u>									
Instructor relates his/her research to the class ^b	4.44	3.68	2.441*	--	--	--	4.46	4.06	2.456*
Instructor is accomplished and engaged in research/scholarly activities ^b	5.00	4.09	9.437*	--	--	--	--	--	--
Instructor demonstrates a sincere interest in research ^b	4.78	4.05	4.111*	--	--	--	--	--	--
Instructor knows current research in his/her field ^b	4.78	4.10	3.935*	4.10	4.53	-2.317*	--	--	--
Extent instructor shares results of his/her research/scholarly activities with the class ^c	3.56	2.83	2.313*	--	--	--	--	--	--
Extent instructors' teaching detracts from his/her research ^c	--	--	--	2.90	1.90	2.569*	--	--	--
<u>Availability to Students</u> ^a									
Instructor is available for personal problem consultation outside of class	4.22	3.68	3.171*	--	--	--	--	--	--
Instructor is available other times besides office hours	4.67	4.11	2.972*	--	--	--	4.92	4.25	6.805*
Instructor is available for academic course information outside of class	4.67	3.73	3.484*	4.30	3.74	3.145*	4.77	3.81	6.078*
Instructor is available for informal socializing outside of class	--	--	--	2.20	3.18	-2.610*	2.54	3.49	-2.934*
Instructor welcomes students seeking advice outside of class	--	--	--	--	--	--	4.61	4.23	2.511*
Instructor is accessible to students outside of class	--	--	--	--	--	--	4.69	4.35	2.349*
Instructor is available for career concern discussions outside of class	--	--	--	--	--	--	4.62	4.04	3.786*

* $p \geq 0.05$

Note. ^a based on a 5-point response scale with 5=strongly agree, 3=neutral, 1=strongly disagree; ^b based on a 6-point response scale with 5=strongly agree, 3=neutral, 1=strongly disagree, 0=don't know; ^c based on a 6-point response scale with 5=always, 3=sometimes, 1=never, 0=don't know. Student "don't know" responses were not included in the analysis. Dashes (--) indicate no significant difference was found for the item.

CHAPTER V

**MANUSCRIPT II:
FORMAL APPOINTMENTS AND REPORTED RESPONSIBILITIES
FOR UNIVERSITY FACULTY FROM TWO COLLEGES**

FORMAL APPOINTMENTS AND REPORTED RESPONSIBILITIES FOR UNIVERSITY FACULTY FROM TWO COLLEGES

Abstract

This study is the second of a two-part study. The first study was conducted to determine if perceptions of university faculty members by both students and faculty differed in regard to teaching effectiveness, research/scholarly activities and availability to students. This study compared the responsibilities of the Research II university faculty from two colleges and selected outcome measures. Findings indicated that faculty from two colleges/schools spent considerable time and energy on responsibilities regardless of formal appointments.

CHAPTER V

Manuscript II

Introduction

The question of university teaching versus research has a long and widespread history. After World War II, as research universities developed, the greatest rewards came to faculty who acquired large federal grants and published with teaching taking a back seat to research (Academic Work Loads, 1993; Bok, 1991; Lombardi, 1993; Winkler, 1992). The emphasis on research continued and recently again became a subject of controversy, thus leading some to investigate faculty workload responsibilities and productivity. The type of institution and an institution's mission play an important role in explaining the type of teaching and research activity that is expected of each faculty member. This study focused on faculty members within two different colleges/schools (Human Sciences and Engineering) in the Research II university classification (A Classification, 1994) since research is typically expected of faculty in this classification. Specifically, this component of the study addressed faculty workload, formal position responsibilities, and productivity.

The work that university faculty conduct is usually done inconspicuously, without public notice and not understood or appreciated (Bowen & Schuster, 1986; Layzell, 1996). There has been more attention focused on what professors do with their time. Layzell (1996) indicated two primary reasons for the resurgent interest in what faculty actually do, how much they work, and what they accomplish. First, the reality of declining state funding for higher education has fueled the examination of faculty responsibilities and use of time. Second, an increased demand for greater faculty accountability is being advocated at both the state and national levels.

A recent KRMG radio talk show indicated that professors were overpaid, teach only 6 to 7 hours per week, and were not responsive to students. In response to these criticisms, Mowen (1995) compared faculty members to television anchors and sports coaches. He reminded readers that TV anchors and coaches spend a minimal number of hours per week in the public's eye, yet, in actuality, they work 50-plus hours per week. Mowen indicated that faculty perform their work in much the same way, being seen by students less than 25 percent of their actual working time.

Massy and Zemsky (1994) reported that typically faculty in departments at research universities prefer small teaching loads so time can be allocated for research and scholarship. Fairweather (1993) reported that for full-time tenure track faculty in general, the more time spent on teaching and in the classroom, the lower the salary, while those who spent more time conducting research and publishing had a higher salary. An implication of this finding is that a faculty member might desire to spend more time conducting research and less time teaching based on financial rewards.

Much of the investigative activity involving faculty workload and productivity has come primarily from state legislators and other state policy makers. Politicians have been receiving complaints from constituents that their children were not getting into classes in state colleges and universities because professors were conducting research and not teaching enough (Winkler, 1992). Winkler (1992) indicated that an assumption was made that teaching has become a secondary activity for faculty members, and that research has taken professors away from what the state pays them to do. In his report, Winkler said that at least 12 states were examining the academic work week of faculty by reporting the number of hours spent on various activities to ensure that faculty members spend more time teaching. Mahtesian (1995) reported that legislators in Ohio are demanding faculty to account for time spent teaching, which he indicated is on the decline.

A report issued by the U. S. House Select Committee on Family and Youth (1992) concluded that undergraduates were taking it on the chin, and teaching had become the unwanted

orphan of the university system. The same committee report noted that in many places, professors taught only six credit hours per semester or less, down from 15 credit hours ten years ago. The other side of the controversy is exemplified by Bok (1991) who indicated that spending more time conducting research does not necessarily mean spending less time teaching. Bok (1991) also found that faculty who publish more were not necessarily worse teachers in the eyes of their students than those who did not publish.

Research Purpose

This study is part of a larger project designed to examine student and faculty perceptions of university faculty members' teaching effectiveness, research/scholarly activity, and availability to students in two colleges/schools (Human Sciences and Engineering) for 15 universities. Although differences were found between students and between faculty and students, overall, the students perceived that their instructors were effective teachers, who shared their research/scholarly activities with students, and were available to students for various reasons. A second component of the research focused on responsibilities assigned to faculty and the work that faculty accomplished. Teaching is only one of the multiple responsibilities that faculty are expected to assume. The extent of responsibilities other than teaching is often not known nor understood by many. Specifically, this component examined and compared:

1. Percent of time assigned to various responsibilities of faculty in two identified colleges/schools.
2. Advising responsibilities of faculty in two colleges/schools.
3. Consulting activities of faculty in two colleges/schools.
4. Courses and credit hours per year and contact hours per week of faculty in two colleges/schools.
5. Research publication, presentations and proposals of faculty in two colleges/schools.

Methodology

Samples

Fifteen Research II universities that contained both Colleges/Schools of Human Sciences and Engineering were selected for participation in this study (A Classification, 1994). The dean in each of the 29 colleges/schools was contacted to solicit cooperation in choosing two faculty members who satisfied specific criteria, within the college/school for participation in the study. Criteria included: having both teaching and research responsibilities, teaching a junior or senior level course, and recognition for teaching effectiveness and scholarly accomplishments. Effective teaching was evidenced by high student evaluations, high student performance on standardized tests or in competitions, and obtaining teaching grants and/or awards. Selected faculty members were also required to be active researchers with scholarly output in the form of published articles, or other refereed materials, refereed presentations at national and/or international meetings, and/or juried design scholarship. Selected faculty were asked by their dean to complete the faculty questionnaire, and to choose a junior or senior level class for inclusion in the study.

Questionnaire

The questionnaire used for this study was developed to survey faculty in a dissertation (McAlister-Apple, 1996). The faculty survey was organized into three main: teaching effectiveness, research activity, and availability. The instrument consisted of 64 items minimally adapted from previous research studies and 15 items developed by the investigators. For example, the original item read, "I put material across in an interesting way" (Feldman, 1976), this was adapted for this study to read, "I have an interesting presentation of subject matter. "

Faculty Survey. The first section of the survey, teaching effectiveness, was divided into three sub-sections: instructor characteristics, classroom presentation and evaluation, feedback, and reinforcement. The instructor characteristics section contained 16 items, the classroom

presentation section contained 30 items, and the evaluation, feedback, and reinforcement section contained 11 items.

The second section of the faculty survey addressed the research/scholarly activities of the instructor and contained eight items. Each faculty respondent was asked to indicate on a Likert-type response scale (5=strongly agree, 1=strongly disagree) his/her agreement/disagreement with statements regarding his/her research activity, the extent that he/she shared results of his/her research and his/her perception of the relationship between teaching and research and vice versa. The last two questions in the research activities section were open-ended and asked the faculty respondent to define the purpose of research and the relationship between research and instruction.

The third section of the faculty survey addressed 12 items regarding the availability of the instructor to students outside of class. A faculty background section consisted of demographic items including gender, age, academic rank, college/school affiliation, departmental affiliation, and total full-time years teaching. The faculty survey also included a section for the faculty to identify percent responsibilities, hours spent advising, contact hours spent teaching, and involvement in service both within and outside the university.

Data Collection

The dean of each of the 29 colleges/schools was sent two questionnaire packets. Each packet contained a faculty questionnaire and 25 student questionnaires. Once the faculty member completed the faculty questionnaire, he/she was asked to select one junior or senior level class that he/she was currently teaching. The dean's office was responsible for distributing the student questionnaires to the selected class. The students completed the questionnaires during class and submitted completed questionnaires to a class representative who turned them into the dean's office. The dean's office returned all questionnaires to the investigator in a self-addressed stamped envelope. Two weeks after the initial mailing, a postcard was sent to each college/school

reminding each dean of the deadline date and again asking for his/her cooperation. Those colleges/schools that did not respond by the given date were sent a follow-up letter.

Findings

The faculty sample consisted of 20 males and 14 females; 12 assistant professors, 13 associate professors, and 9 full professors; and were employed 4 to 35 years. The faculty age ranged from 33 to 59. Of the 29 total colleges/schools selected to participate, 19 colleges returned the questionnaires, of which 11 colleges (57.9%) were Human Sciences and 8 (42.1%) were Engineering. One university had both Human Sciences and Engineering within the same college. Since each college/school dean was asked to choose two faculty members, 60 faculty respondents were possible. Of the 60 possible faculty respondents, 34 (56.7%) faculty returned completed questionnaires, with 21 (61.8%) from Human Sciences and 13 (38.2%) from Engineering. Of the 697 students who returned questionnaires, 425 (61.0%) were Human Sciences students, 262 (37.6%) were Engineering students, and 8 (1.1%) were from other colleges/schools. Two (0.30%) students did not provide their college affiliation. Two sets of student surveys did not have a corresponding faculty survey and two sets of faculty surveys did not have corresponding student surveys. Thirty-two faculty surveys were successfully paired with student surveys.

Of the 21 Human Sciences faculty, 62% had teaching appointments of 50% or less and almost 54% of Engineering faculty had teaching appointments of 50% or less as shown in Table 8. More than half (57%) of the Human Sciences faculty had a research appointment of 25% or less, 38% had a research appointment between 26 - 50%, and only one faculty member had more than 50% allocated to research. Over two-thirds (69%) of the Engineering faculty had a research appointment between 26-50%. The remaining Engineering faculty (31%) had less than a 25% research appointment. Table 8 shows the percentage of teaching and research appointments as well as service, administration, and formal advising appointments for each college/school. Overall,

faculty from both colleges/schools had considerable teaching and research appointments as well as advising, service, and some administrative appointments.

Insert Table 8

Table 9 shows the percent of time assigned to teaching and the number of courses and credit hours per year as well as the number of contact hours per week for faculty in each college. Table 9 also illustrates the wide range of the number of courses taught by faculty in various universities and the variety of contact hours. It is not surprising that faculty with less than a 50% teaching appointment had responsibility for fewer courses, credit hours and contact hours, than those who had a 50% or above teaching appointment for both colleges. The mean number of courses taught per year was 7.1 for Human Sciences faculty with teaching assignments greater than 50%, and 4.7 for Engineering faculty. Human Sciences faculty with a 50% or greater research appointment taught a mean of 4.7 courses per year as compared to 3.9 for Engineering faculty.

Insert Table 9

Almost 60% of the Human Sciences faculty had less than or equal to a 25% research appointment as compared to almost 31% for Engineering faculty (see Table 8). Almost 70% of the Engineering faculty had research appointments between 26% and 50% as compared to 38% for Human Sciences faculty. Table 10 presents scholarly output by research appointment for both groups of faculty. Surprisingly, 25% of Engineering faculty with a research appointment of 25% or less did not produce any manuscripts in the last five years. Forty-two percent of Human Sciences faculty with 25% or less research appointment wrote between one and five refereed

manuscripts in the last five years and none of the Engineering faculty produced one to five manuscripts. Half of the Engineering faculty who had 25% or less research appointment had written between six and ten refereed manuscripts, as compared to 33% of the Human Sciences faculty. The last two columns of Table 10 summarizes the data by colleges for all but one Human Sciences faculty who had a research appointment of greater than 50%. This faculty member had written six to ten refereed manuscripts, delivered six to ten refereed presentations, and had written over ten external grant proposals in the last five years.

Insert Table 10

Of the Human Sciences faculty who had less than or equal to a 25% research appointment, 33% had not written any external proposals for funding, 42% had written between one and five proposals, while 17% had written between six and ten proposals. Fifty percent of the Engineering faculty with a research appointment of 25% or less had written between one and five proposals for external funding, 25% had written between six and ten, and 25% had written over ten in the last five years. Sixty-two percent of Human Sciences faculty with a 26 to 50% research appointment wrote between one to five proposals for external funding as compared to 44% for Engineering faculty in the last five years. Thirty-three percent of the Engineering faculty wrote between six and ten external funding proposals as compared to 12% Human Sciences faculty. Along with the above information, Table 10 also shows scholarly output for refereed presentations, juried exhibits, and other publications for faculty from each college/school. Although both groups of faculty produced scholarly output, the emphasis seemed to lay in different areas for each college. Engineering faculty seemed to focus more on external proposal writing while Human Sciences faculty produced more proposals for internal funding.

Insert Table 11

Some of the most surprising data came from advising appointments and the number of undergraduates and graduate students advised as well as the number of hours per week that faculty in both colleges spend on advising. Almost 30% (6 of 21) of the Human Sciences faculty reported no formal allocation of time to advising responsibilities. Yet, all advised undergraduates with 50% having 21 or fewer and 50% with over 21 undergraduate advisees. In addition, all had graduate student advising responsibilities with 50% advising four to ten graduate students and 17% advising more than 10 graduate students. The remaining 70% of Human Sciences faculty had formal advising appointments ranging from 1% to 15%.

Over 50% of the Engineering faculty had no formal advising appointment, yet 43% had 20 or fewer undergraduate advisees and 57% advised over 21 undergraduate students. These faculty also reported graduate students advising responsibilities with 43% having four to ten graduate student advisees and 29% advising over 10 graduate students. All faculty from both colleges/schools regardless of formal appointment had considerable advising responsibilities.

The majority of faculty in both colleges served on five or fewer university, college/school, and/or departmental committees regardless of appointment. Fifty-three percent of Human Sciences faculty reported having a 10% or greater service appointment and 38% of Engineering faculty reported have a 10% service appointment as shown in Table 12. Two (9.5%) Human Sciences faculty who had less than a 10% service appointment reported serving on more than five university committees and more than five departmental committees. Only one Engineering faculty who had less than a 10% service appointment served on more than five college/school committees and more than five departmental committees. Regardless of service appointment, faculty in both colleges were involved in some type of service and/or outreach activity.

Insert Table 12

Discussion

What are typical appointments of faculty and how do faculty spend their time? Formal appointments regardless of college varied considerably. Almost all included teaching, research, and service appointments and some included appointments for advising and administration. Despite formal appointments, all faculty reported advising responsibilities and it should be noted that most advised a substantial number of undergraduate and graduate students.

Both groups of faculty spend considerable amount of time and energy on varied responsibilities, formal appointment or not. Over half of the faculty from both Human Sciences and Engineering had a 50% or less teaching appointment and taught an average of twelve and ten credit hours respectively per academic year. Almost all Human Sciences faculty had research appointments of 50% or less while all the Engineering faculty research appointments of 50% or less.

Almost half of the Human Sciences and Engineering faculty reported writing an average of one external grant proposal a year regardless of research appointment. Over 70% of Human Sciences faculty and over 50% of Engineering faculty reported writing an average of one internal grant a year. Over 80% of Human Sciences faculty and over 60% of Engineering faculty had written between one and two refereed manuscripts a year regardless of research appointment. Although Human Sciences faculty indicated they produced more scholarly output than Engineering reported both faculty groups seemed to be actively engaged in research and scholarship while teaching a fair number of courses per year along with other appointment responsibilities.

One of the most interesting findings of this comparison study regarded the formal advising appointment. While 29% of Human Sciences faculty and 54% of Engineering faculty reported no

advising appointment, they still had the responsibility of advising up to 60 undergraduate students and up to 10 graduate students. They also reported spending about 1 to 1½ days per week advising these students. Those with 5% advising appointment in both colleges indicated that they advised around the same number of undergraduate and graduate students as those with no formal advising appointment. There did not seem to be a good match for formal advising appointments and the reported responsibilities expected of these faculty.

Data presented in chapter IV the results of this study, indicate that these faculty from both colleges/schools are doing it all. They have received high evaluations from their junior and senior level students on their teaching effectiveness, research activity, and availability to students. They have reported being involved in service and outreach, advising, and administration as well.

The responsibility profile of these faculty support Bok's (1991) indication that spending more time on research does not necessarily mean time is being taken away from teaching. More than likely hours are being taken away from other areas such as personal time and free time.

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Table 8
Formal Appointment Percentages as Reported by Faculty in Two Colleges.

	Human Sciences		Engineering	
	f_a	%	f_b	%
Teaching				
≤ 50%	13	61.9	7	53.8
> 50%	8	38.1	6	46.2
Research				
≤ 25%	12	57.4	4	30.8
26% - 50%	8	38.1	9	69.2
> 50%	1	4.8	--	--
Advising				
0%	6	28.6	7	53.8
1 - 2%	1	4.8	3	23.1
5%	8	38.0	2	15.4
10%	5	23.8	--	--
15%	1	4.8	1	7.7
Service				
> 10%	9	42.9	8	61.5
10%	7	33.3	5	38.5
< 10%	5	23.8	--	--
Administrative				
0%	12	57.1	10	76.9
5%	6	28.6	--	--
≥ 10%	3	14.3	3	23.1

^a N of Human Sciences Faculty =21

^b N of Engineering Faculty = 13

Table 9
Teaching Appointment and Courses Taught as Reported by Faculty in Two Colleges.

	Teaching Appointment \leq 50%		Teaching Appointment $>$ 50%	
	Human Sciences ^a	Engineering ^b	Human Sciences ^c	Engineering ^d
Range of number of courses taught per year	2-7	2-5	3-12	4-8
Mean number of courses	4.7	3.9	7.1	4.7
Range of credit hours per year	6-24	6-15	9-45	12-24
Mean number of credit hours per year	12.1	10.6	23.2	14
Range of contact hours per week	3-10	3-15	6-18	7-12
Mean number of contact hours per week	6.7	6.1	11	9.8

^a Human Sciences faculty with teaching appointment \leq 50% = 13.

^b Engineering faculty with teaching appointment \leq 50% = 7.

^c Human Sciences faculty with teaching appointment $>$ 50% = 8.

^d Engineering faculty with teaching appointment $>$ 50% = 6.

Table 10

Research Appointment and Scholarly Output for the last Five Years as Reported by Faculty in Two Colleges.

	Research Appointment ≤ 25%		Research Appointment 26-50%		Research Appointment ≤ 50%*	
	Human Sciences ^a	Engineering ^b	Human Sciences ^c	Engineering ^d	Human Sciences ^e	Engineering ^f
Refereed Manuscripts						
0	--	1 (25.0)	--	2 (22.0)	--	3 (23.1)
≤ 5	5 (42.0)	--	3 (37.5)	5 (55.6)	8 (40.0)	5 (38.5)
6 - 10	4 (33.0)	2 (50.0)	4 (50.0)	1 (11.1)	8 (40.0)	3 (23.1)
11 - 21	3 (25.0)	1 (25.0)	1 (12.5)	1 (11.1)	4 (20.0)	2 (15.3)
External Grant Proposals						
0	4 (33.0)	--	1 (12.5)	1 (11.1)	5 (25.0)	1 (7.8)
1-5	5 (41.6)	2 (50.0)	5 (62.5)	4 (44.4)	10 (50.0)	6 (46.2)
6-10	2 (17.0)	1 (25.0)	1 (12.5)	3 (33.3)	3 (15.0)	2 (15.4)
> 10	1 (8.0)	1 (25.0)	1 (12.5)	1 (11.1)	2 (10.0)	4 (30.8)
Internal Grant Proposals						
0	2 (16.7)	1 (25.0)	1 (12.5)	4 (44.4)	3 (15.0)	5 (38.5)
1-5	9 (75.0)	2 (50.0)	5 (62.5)	5 (55.6)	14 (70.0)	7 (53.8)
> 6-10	1 (8.3)	1 (25.0)	2 (25.0)	--	3 (15.0)	1 (7.8)
Refereed Presentations						
0	--	--	--	2 (22.2)	--	2 (15.4)
≤ 5	6 (50.0)	2 (50.0)	4 (50.0)	3 (33.3)	10 (50.0)	5 (38.5)
6 - 20	4 (33.3)	2 (50.0)	2 (25.0)	4 (44.4)	6 (30.0)	6 (46.2)
>20	2 (16.7)	--	2 (25.0)	--	4 (20.0)	--
Other Publications						
0	3 (25.0)	1 (25.0)	3 (37.5)	22.2	6 (30.0)	3 (23.1)
1 - 5	7 (58.3)	2 (50.0)	5 (62.5)	33.3	12 (60.0)	5 (38.5)
6 - 10	1 (8.3)	--	--	22.2	1 (5.0)	2 (15.4)
11 - 23	1 (8.3)	1 (25.0)	--	22.2	1 (5.0)	3 (23.1)
Juried Exhibits and Other						
0	11 (92.0)	3 (75.0)	8 (100)	9 (100)	1 (5.0)	1 (7.8)
1 - 5	1 (8.0)	1 (25.0)	--	--	19 (95.0)	12 (92.2)

^a Human Sciences with research appointment ≤ 25% = 12.^b Engineering with research appointment ≤ 25% = 4.^c Human Sciences with research appointment 26-50% = 8.^d Engineering with research appointment 26-50% = 9.^e Human Sciences with research appointment ≤ 50% = 20.^f Engineering with research appointment ≤ 50% = 13.

* Summary of total faculty in each college with ≤ 50% research appointment.

Table 11

Formal Advising Appointment, Number of Students Advised, and Hours Spent Advising per Week for the Last Five Years as Reported by Faculty in Two Colleges.

	Advising Appointment									
	Human Sciences					Engineering				
	0%	1% - 2%	5%	10%	15%	0%	1% - 2%	5%	10%	15%
Number of undergraduates										
≤20	3	--	4	3	--	3	3	2	--	--
21-60	2	--	3	1	1	4	--	--	--	--
>60	1	1	1	1	--	--	--	--	--	1
Number of graduates										
≤3	2	--	2	3	1	2	--	2	--	--
4-10	3	1	5	1	--	3	3	--	--	1
>10	1	--	1	1	--	2	--	--	--	--
Hours per week advising										
≤4	1	--	5	3	--	5	3	2	--	--
5-10	4	--	3	2	1	2	--	--	--	1
>10	1	1	--	--	--	--	--	--	--	--

Table 12

Service Appointment and Number of Service Activities the last Five Years as Reported by Faculty in Two Colleges.

	Service Appointment < 10%		Service Appointment = 10%		Service Appointment > 10%	
	Human Sciences _a	Engineering _b	Human Sciences _c	Engineering _d	Human Sciences _e	Engineering _f
University committees						
≤ 5	7	8	7	5	4	--
> 5	2	--	--	--	1	--
College/school committees						
≤ 5	9	7	5	5	4	--
> 5	--	1	2	--	1	--
Departmental committees						
≤ 5	7	7	5	3	3	--
> 5	2	1	2	2	2	--
State professional associations						
≤ 5	8	8	6	5	5	--
> 5	1	--	1	--	--	--
National professional associations						
≤ 5	8	8	7	5	3	--
> 5	1	--	--	--	2	--
International professional associations						
≤ 5	9	8	7	5	5	--
> 5	--	--	--	--	--	--
Continuing education programs						
≤ 5	7	8	6	5	4	--
> 5	2	--	1	--	1	--

(table continues)

	Service Appointment < 10%		Service Appointment = 10%		Service Appointment > 10%	
	Human Sciences _a	Engineering _b	Human Sciences _c	Engineering _d	Human Sciences _e	Engineering _f
Cooperative extension programs						
≤ 5	9	8	7	5	5	--
> 5	--	--	--	--	--	--
Seminar programs						
≤ 5	9	6	7	5	5	--
> 5	--	--	--	2	--	--
Off-campus courses						
≤ 5	9	7	7	5	5	--
> 5	--	1	--	--	--	--

_a Human Sciences with Service Appointment < 10% = 9.

_b Engineering with Service Appointment < 10% = 8.

_c Human Sciences with Service Appointment = 10% = 7.

_d Engineering with Research Appointment = 10% = 5.

_e Human Sciences with Service Appointment > 10% = 5.

_f Engineering with Research Appointment > 10% = 0.

CHAPTER VI

Summary, Conclusions, and Recommendations

This study examined and compared student and faculty perceptions of university faculty members' teaching effectiveness, research/scholarly activities, and availability to students. The objectives of this study addressed the following vital questions. Do faculty and students have shared perceptions of what constitutes effective college teaching, research/scholarly activities, and faculty availability to students? Are faculty and students' perceptions of effective college teaching, research/scholarly activities, and availability similar by academic discipline, faculty rank, and faculty years employed? What constitutes typical faculty workload and productivity for faculty recognized as effective teachers and productive researchers?

Twenty-nine colleges/schools (14 Human Sciences, and 14 Engineering, and 1 college containing both Human Sciences and Engineering) were chosen for participation from fifteen Research II universities. The dean of each college/school was contacted and asked to select two faculty members in the college/school who were known for their teaching effectiveness and research accomplishments. Specific criteria were given to the deans to assist them in their selection process. The faculty were asked to complete the faculty survey and to choose one junior or senior level class they were currently teaching to complete the student survey. Of the sixty possible faculty respondents, thirty-four returned the completed survey, twenty-one from Human Sciences and thirteen from Engineering. Six hundred-ninety-eight student surveys were returned, 425 Human Sciences, 262 Engineering and eleven from other colleges/schools.

Data were analyzed using the t-test to determine if significant differences in perceptions occurred between Human Sciences and Engineering students, Human Sciences and Engineering faculty, Human Sciences students and faculty, Engineering students and faculty, faculty (by

academic rank) and their students, and faculty (by years employed) and their students. Findings were developed into two manuscripts with the first manuscript focusing on hypotheses testing as listed in Chapter 1. The second manuscript presented comparisons related to faculty responsibilities and specific outcome measures.

Manuscript I Findings

Although significant differences were found, students in both Human Sciences and Engineering rated their instructor with relatively high scores on almost all positively phrased items indicating that they perceived their instructors were doing a good job teaching. Typically students disagreed with negatively phrased items such as “the instructor gives presentations which are dry and dull.” Few significant differences were found between the faculty from both colleges indicating that they also agreed with items related to teaching effectively, conducting and sharing research reasonably, and being available to students.

In general, engineering students reported higher scores for their instructors on several personal characteristics items such as having more personality and a sense of humor. Human Sciences students rated their instructors higher on numerous classroom presentation skills such as being more prepared and organized, having thorough knowledge of subject matter and stimulating student involvement. Human Sciences students reported significantly higher scores for their faculty on nine of twelve research items, such as relating his/her research to the class, relating course content to existing research, and giving assignments which required the use of research journals. Similarly, Human Sciences students rated their instructors higher on nine of twelve items related to availability. Human Sciences students consistently rated their faculty higher than Engineering students rated their instructors on all items.

Engineering students rated their instructors higher than faculty rated themselves for several instructor characteristics items, such as ability to direct discussion, having an interesting classroom presentation style, and being personable. Engineering faculty rated themselves higher than their

students rated them for being conscientious about instructional responsibilities. No differences existed between Engineering students and faculty regarding classroom presentation, indicating that this group of faculty were generally perceived to demonstrate effectiveness in the classroom. Engineering faculty rated themselves higher than their students rated them for realizing when students were bored or confused and giving exam and other requirements which were worthwhile and reasonable. Engineering faculty rated themselves higher than their students rated them on two of nine research/scholarly activities items regarding being actively engaged and accomplished in research and relating research to the class. Engineering faculty also rated themselves higher than their students rated them on two of three availability items, being available for intellectual discussions and other times besides office hours. However, Engineering students perceived their faculty to be more available for informal socializing than their faculty perceived their own availability.

Human Sciences students and faculty were found to differ on more items regarding instructor characteristics; classroom presentation; evaluation, feedback, and reinforcement; and availability to students. Human Sciences faculty perceived themselves showing more personal, sincere interest in their students and respecting their students more than their students perceived. Human Sciences faculty rated themselves higher than their students rated them on three items regarding classroom presentation, including knowing what to teach, promoting discussion, and using more than one approach as necessary. Human Sciences students rated their instructors lower than the faculty rated themselves on three items; realizing when students are bored or confused, regularly informing students of their progress, and giving exams and requirements which are worthwhile and reasonable. Two evaluation, feedback, and reinforcement items, exam questions are unreasonably detailed and stress unnecessary memorization, were rated higher by Human Sciences students than by the faculty. Five of eight availability items were rated higher by Human Sciences faculty including being available for academic course information and at other times

besides office hours as well as communicating office hours. Human Sciences students rated their instructors higher than the faculty rated themselves on being available for informal socializing.

Interesting differences were found by academic rank and years employed. Assistant professor faculty rated themselves similarly to their students on all survey items with only three items found to differ significantly. At the associate professor rank, significant differences between students' and faculty perceptions were found for 13 items. At the full professor rank, significant differences between students' and faculty perceptions were more pronounced, occurring for 17 items. It is interesting to note that for the categories, evaluation, feedback, and reinforcement and availability to students, the number of significant items increased from associate professor rank to full professor rank. For example, at the full professor level, 6 out of 8 items differed significantly between faculty and students and only one differed significantly between associate professor faculty and their students.

Assistant professors rated themselves significantly higher than their students rated them on being available for academic course information and being available other times besides office hours. They also rated the extent to which teaching detracts from research higher than their students. Associate professors rated themselves higher on twelve of the thirteen items having significant differences. They perceived themselves as respecting and being fair to students as well as being conscientious about their instructional responsibilities more than their students perceived them to be. When responses to classroom presentation items were compared, students of associate professors perceived their instructors' explanations were clear and easy to understand and follow more than the faculty perceived. The associate professors perceived that they encouraged students to express themselves freely more than the students perceived. Associate professors rated themselves significantly higher than their students rated them on four of the nine research/scholarly activities items. These items included relating research to the class, being actively engaged and

accomplished in research, the extent that results of research are shared with the class, and the extent that teaching detracts from research.

The majority of significantly different responses between full professors and their students regarded evaluation, feedback, and reinforcement items and availability items. Students rated their full professors lower on four of eight evaluation, feedback, and reinforcement items which included realizing when students were bored or confused, informing students of their progress and performance, and giving exams and requirements which were worthwhile and reasonable. The students rated their full professors higher than the faculty rated themselves on giving examination questions which were unreasonably detailed and stressing unnecessary memorization. Full professor faculty perceived themselves to be more available for academic course information, career concerns, and intellectual discussions as well as being available other times besides office hours than their students perceived. Students perceived their full professors to be more available for informal socializing than faculty perceived.

Interesting differences also occurred between faculty and students by years employed. Faculty employed 4 to 7 years differed significantly from their students on 11 items. Those faculty employed 8 to 14 years and their students differed significantly on nine items. Faculty employed over 14 years and their students differed significantly on 19 items. Faculty employed 4 to 7 years perceived themselves respecting and being fair to students more than their students perceived. There were no differences found between this group of faculty and their students for classroom presentation items. Faculty employed 4 to 7 years rated themselves significantly higher than their students rated them on five of nine research/scholarly activities items such as relating research to the class, demonstrating sincere interest in research, and knowing current research in their fields. Students rated faculty employed 4 to 7 years significantly lower than faculty rated themselves on being available for personal problem consultation, academic course information, and other times besides office hours.

Faculty employed 8 to 14 years rated themselves higher than their students rated them for being conscientious about instructional responsibilities. Interestingly, students of these faculty rated them higher on all classroom presentation items where significant differences were identified including helping students answer their own questions, explaining clearly, being easy to understand, and comparing and contrasting the implications of various theories. Only one item was found to differ between students and faculty employed 8 to 14 years for evaluation, feedback, and reinforcement items faculty indicated they realized when students were bored or confused more than students indicated they did. Students rated their faculty employed 8 to 14 years higher than the faculty rated themselves for knowing current research in their fields. When availability items were rated, responses to two items were found to differ significantly. Being available for informal socializing was rated higher by students than by faculty employed 8 to 14 years and being available for academic course information was rated higher by faculty than by students.

Faculty employed over 14 years rated themselves higher than their students rated them on being fair and sincerely interested in students and having enthusiasm for teaching. These faculty also rated themselves higher than their students rated them for knowing what to teach, relating course content to real life situations, and encouraging students to express themselves freely. Students of faculty employed over 14 years rated their instructors lower on four of the six evaluation, feedback, and reinforcement items. These items included realizing when students were bored or confused, seeking feedback from students, informing students of their progress, and giving exams and requirements which were worthwhile and reasonable. Responses to only one research/scholarly activities item was found to be significantly different, faculty employed over 14 years rated themselves higher than their students rated them for relating their research to classes. Faculty employed over 14 years perceived themselves to be available for academic course information and career concerns more than their students indicated. The faculty also rated themselves higher for being accessible to students and being available other times besides office

hours and welcoming students seeking advice. Students, however, rated faculty employed over 14 years higher on being available for informal socializing than faculty rated themselves.

Although significant differences existed between students and faculty on the extent that teaching detracted from research, it is interesting to note that both students and faculty indicated that teaching and research did not detract from each other.

Manuscript II Findings

The question of how faculty spend their time is frequently addressed in the recent popular press and research literature. Data collected for this study from the faculty included identifying faculty responsibilities and involvement. These data were used as the basis for the second manuscript. Findings from this study suggest that the selected faculty have varied and multiple responsibilities although their formal appointments or not may not reflect the full range of responsibilities. The most interesting finding came from those faculty who had no formal advising appointment yet had the responsibility to advise numerous undergraduate and graduate students. Faculty from both Human Sciences and Engineering held high percentages in teaching and research appointments as well as some reporting advising, service, and even administrative appointments. This indicates that faculty are spending considerable time, more than likely well over the average 40 hour work week, in carrying out their various reported responsibilities.

Recommendations for Future Research

This study focused on faculty known for their teaching and research, one of their upper level undergraduate classes, and two colleges/schools in 15 Research II universities. This research stream provides valuable information regarding questions that legislators, the general public, parents, and administrators are concerned about. Clearly, the research can be furthered in various ways. The most evident and promising expansions of this study are listed below.

- Include faculty known for their teaching and research effectiveness from other colleges/schools within the same Research II university classification. Including faculty

similar to those selected for this study from other colleges/school would help determine if discipline influences faculty perceptions of teaching effectiveness, research/scholarly activities and availability to students.

- Include general faculty by a random selection process from colleges/schools within the Research II university classification. Since all Research II universities are similar in their scope and missions, including general faculty from similar universities would help determine how widespread and uniform general faculty perceptions and their students perceptions are on teaching effectiveness, research/scholarly activities and availability to students as well as responsibilities and outcome measures.

- Include lower level undergraduate students and/or graduate students. This would help determine if students from all classification levels agreed in their perceptions and expectations of university faculty teaching effectiveness, research/scholarly activities and availability to students.

- Include other categories of 4-year higher education institutions. This study could also be replicated in other 4-year university classifications to determine if perceptions differ by organization or mission of the university or if there is a universal consistency among perceptions of students and faculty in all areas of higher education.

- Develop a theoretical framework in which this and additional studies could be based. To date, there is a lack of a theory base for traditional faculty and student studies of this type. Theoretical frameworks have been mentioned only in the fact that they are needed for this type of study in higher education. However, very few exist in the literature.

As indicated, numerous additional studies could be conducted to help develop a more complete understanding of perceptions by both students and faculty regarding teaching effectiveness, research/scholarly activities, and availability to students.

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APPENDICES

APPENDIX A

Research II Universities

1. Auburn University- Auburn Alabama 36849-5109

School of Human Sciences

June M. Henton, Dean
Arthur W. Avery, Associate Dean
Dorothy H. Cavender, Assistant. Dean
Paulette P. Hill, Assistant Dean
Lenda Jo Anderson, Assistant Dean

College of Engineering

William F. Walker, Dean
M. Dayne Aldridge, Associate Dean & Director
Joseph S. Boland III Associate Dean
Edward O. Jones, Associate Dean
Jim M. Owens, Associate Dean

2. University of Arkansas- 205 Agriculture Bldg. Fayetteville 72901 501-575-2252

College of Agriculture & Human Environmental Sciences

Charles J. Scifres, Dean
Charlene Mooty, Associate Dean

College of Engineering-4183 Bell Engineering Center 501- 575-3051

Neil M. Schmitt, Dean
Robert C. Welch Associate Dean
Jim L. Gattis, Associate Dean
William Warnock, Assistant Dean
Thomas Carter III Assistant Dean

3. University of Delaware - Newark, Delaware 19716

College of Human Resources

Dene G. Klinzing, Dean
Irma Ayers, Dean Emeritus
Catherine V. Beiber, Associate Dean Emeritus
Norma Gaines, Assistant Dean
Susan McLaughlin, Assistant Dean

College of Engineering

Stuart Cooper, Dean
Dan Boulet Jr., Assistant Dean
Robert W. Sample, Assistant Dean
Michael Vaughn, Assistant Dean

4. University of Idaho
 - College of Agriculture-53 Iddings Wing, Ag Sc. Bldg. 208-885-6681
 - Department of Family and Consumer Sciences
 - David E. Lineback, Dean
 - Al J. Lingg, Associate Dean & Dir. of Academic and Int'l Programs
 - College of Engineering-125 Janssen Eng. Bldg. 208-885-6479
 - Richard T. Jacobson, Dean
 - Weldon R. Tovey, Associate Dean
 - David M. Woodall, Associate Dean
5. Kansas State University - Manhattan, KS
 - College of Human Ecology - 119 Justin Hall 532-5500
 - Barbara Stowe, Dean
 - Virginia M. Moxley, Associate Dean of Academic Affairs
 - Jean Sego, Assistant Dean for Programs & Records
 - College of Engineering - 142 Durland Hall 532-5592
 - Donald E. Rathbone, Dean
 - Kenneth K. Gowdy, Associate Dean
 - Tom C. Roberts, Assistant Dean
 - Ray E. Hightower, Assistant Dean
6. Mississippi State University - 130 Lloyd-Rick Bldg. Box 9760, Mississippi State, MS 39762
 - College of Agriculture and Home Economics - 601-352-2110
 - William R. Fox, Dean
 - Brian Baldwin, Assistant to Dean
 - Catherine R. Boyd, Home Economics Undergraduate Coordinator & Interim Assistant Dean
 - College of Engineering - 105 McCain Eng. Bldg. - Box DE, 601-325-2267
 - Robert A. Altenkirch, Dean
 - Clayborne d. Taylor, Assistant Dean for Research & Graduate Studies
 - William N. Smyer, Assistant Dean for Undergraduate Affairs
7. Kent State University - Kent, OH
 - College of Fine & Professional Arts
 - School of Family & Consumer Studies
 - College of Fine & Professional Arts
 - School of Technology

8. Ohio University - Athens, OH 45701
 - College of Health & Human Services
 - Barbara Chapman, Dean
 - Lee Cebrowski, Associate Dean
 - Margaret Goodwin, Assistant Dean for Student Services
 - School of Human & Consumer Sciences
 - Judith Matthews, Director
 - College of Engineering
 - T. Richard Robe, Dean
 - Joseph E. Essman, Associate Dean
 - Roger Radcliff, Assistant Dean for Academic Affairs
 - Pamela Parker, Assistant Dean for Development
 - Marty North, Assistant Dean for Student Careers
9. Oklahoma State University - Stillwater, OK
 - College of Human Environmental Sciences- 108 HES
 - Patricia Knaub, Dean
 - Margaret Weber, Associate Dean for Research & Graduate Studies
 - Lynn Sisler, Associate Dean for Undergraduates
 - College of Engineering, Architecture & Technology - 111 Eng. North x45140
 - Karl N. Reid, Dean
 - David R. Thompson, Associate Dean Instruction & Extension
10. University of Rhode Island - Kingston, RI
 - College of Human Sciences & Services
 - Barbara Brittingham, Dean
 - Leo E. O'Donnell, Associate Dean
 - Milton Butts, Jr. Assistant Dean
 - College of Engineering
 - Thomas Kim, Dean
 - Harold N. Knickle, Associate Dean
 - Richard M. Vandeputte, Academic Advisor
11. Texas Tech University - Lubbock, TX
 - College of Home Economics
 - Elizabeth G. Haley, Dean
 - College of Engineering
 - Mason H. Somerville, Dean

12. Washington State University - Pullman, WA
 - College of Agriculture & Home Economics
 - Larry E. Schrader, Dean
 - Dept. of Apparel Merchandising & Interior Design
 - J. Thompson, Dept. Chair
 - College of Engineering & Architecture
 - Reid C. Miller, Dean
13. University of Wyoming - Laramie
 - College of Agriculture
 - Department of Home Economics
 - Virginia B. Vincenti, Head
 - College of Engineering
14. Syracuse University - Syracuse, NY - 112 Slocum Hall
 - College for Human Development
 - Susan J. Crockett, Dean
 - C.C. Smith College of Engineering & Computer Sciences -227 Link Hall
 - Steven C. Chamberlain, Dean
15. Brigham Young University - Provo, UT
 - College of Family, Home & Social Sciences
 - Clayne L. Pope, Dean - 980 SWKT
 - James M. Harper, Associate Dean for Graduate Projects & Curriculum.
 - Dennis L. Thompson, Associate Dean for Research
 - College of Engineering & Technology
 - L. Douglas Smoot, Dean - 270 CB
 - Steven E. Benzley, Associate Dean
 - John J. Kinzlen, Associate Dean
 - David K. Anthony, Assistant Dean 280 CB
 - Ronald E. Terry, Assistant Dean, 350H CB

APPENDIX B

November 10, 1995

Dear «FirstName»«LastName»:

Current national debate over topics such as teaching effectiveness and research/scholarly activities of university faculty is at the forefront of the professoriate. I am conducting a survey for my doctoral dissertation regarding student and faculty perceptions of faculty members' teaching effectiveness, research/scholarly activities, and availability to students. Your college has been selected to participate in this study of Research II universities. **Your participation in this study is critical. Please choose two faculty members within your college to participate in the study, based upon the following criteria.**

- ◆ **Both faculty members must have responsibility for “scholarship” in instruction and research.** Scholarship is used in the context proposed by Boyer (1990) in Scholarship Reconsidered. Boyer speaks of four separate yet overlapping functions of the work of the professoriate which he referred to as the scholarship of discovery (process of discovering and transmitting new knowledge), the scholarship of application (applying new knowledge to consequential problems), the scholarship of integration (synthesizing knowledge to a larger whole), and the scholarship of teaching (effectively communicating one's knowledge to students). For this study, the scholarship of research refers to the scholarship of discovery, application or integration.
- ◆ **Both faculty members should be recognized as being effective instructors.** Recognition of teaching effectiveness might emanate from student evaluations, student performance in competitions or examinations, faculty teaching awards or instructional grants, and other appropriate evaluation measures.
- ◆ **Both faculty members must be active in “scholarship” activities.** Scholarly output could include refereed journal manuscripts, participation in state, national and international presentations, participation in juried exhibits/shows, and other appropriate dissemination methods.
- ◆ **Both faculty members must teach a junior or senior level class this semester.**

Please request the participation of both faculty members in this study. They will need to complete the faculty questionnaire and return it to your office. They will also need to specify a junior or senior level class that they are currently teaching to receive the student version of the questionnaire. Please distribute the color-coded faculty and student questionnaires to the selected faculty. We request that all student questionnaires be returned to your office by an appointed student of each class. Please return all of the questionnaires in the self-addressed stamped envelope provided in this packet by **November 28, 1995**. If more student questionnaires are needed, please E-mail Donna Branson at marieha@okway.okstate.edu. Thank you for your cooperation and participation in this study.

Sincerely,

Laurie McAlister-Apple
Doctoral Student
Design, Housing & Merchandising

Donna Branson, Ph.D.
Professor & Head
Design, Housing & Merchandising

APPENDIX C

Instrument Items and Sources

<u>Instructor's personality</u>	<u>Sources By Reference Numbers</u>
The instructor has an enthusiasm for teaching	3, 5, 8, 9
The instructor has a tolerance of other peoples' views	3
The instructor shows personal interest in students	1, 3, 8
The instructor demonstrates an ability to direct discussion	3
The instructor has a sense of humor	3
The instructor is dynamic and energetic	5, 8
The instructor is enthusiastic about his/her courses	2, 3, 4
The instructor is sincerely interested in students	3
The instructor respects students as individuals	2, 5, 9
The instructor has an interesting style of classroom presentation,	3, 5
The instructor is personable	3
The instructor maintains a friendly, informal classroom atmosphere	2
The instructor is conscientious about his/her instructional responsibilities	3
The instructor speaks with expressiveness and variety in tone of voice	4
The instructor is fair to all students	3, 4, 9
The instructor is sensitive to class level and progress	4
<u>Classroom presentation</u>	
The instructor knows how to teach	11
The instructor knows what to teach	11
The instructor speaks clearly and can easily be heard	11
The instructor explains clearly and is easy to understand and follow	2, 4, 8

The instructor presents other points of view as well as their own	5, 8
The instructor presentations and questions are thought provoking	11
The instructor is careful and precise in answering questions	11
The instructor utilizes concepts and facts from related fields	1
The instructor compares and contrasts the implication of various theories	8
The instructor uses a well balanced variety of instructional techniques, including such things and audio-visual aids, case studies, field trips, and resource personnel, as appropriate to the given course.	4, 5, 8
The instructor summarizes major points frequently	5
The instructor promotes teacher-student discussion	2, 4, 5
The instructor finds ways to help students answer their own questions	4, 9
The instructor encourages students to express themselves freely and openly	4, 8, 9
The instructor is receptive to student questions	5
The instructor explains new ideas by relating them to familiar concepts	5
The instructor uses more than one approach as necessary	5
The instructor demonstrates the importance and significance of the subject matter	5
The instructor makes presentations which are dry and dull	5
The instructor makes it clear how each topic fit into the course	5
The instructor encourages student comments even when they turn out to be incorrect or irrelevant	5
The instructor summarizes material in a manner which aided retention	5

The instructor stimulates students to intellectual effort beyond that required by most courses	5
The instructor clearly states the objectives of the course	4, 8, 9
The instructor explains course material clearly, and explanations were to the point	8
The instructor relates course material to real life situations	
The instructor has an interesting presentation of subject matter	2, 3
The instructor has a thorough knowledge of subject matter	3
The instructor is prepared and organized	4
The instructor is clear and understandable	4, 9
The instructor has clear objectives and requirements	9
<u>Evaluation, Feedback, and Reinforcement</u>	
The instructor gives examination questions which are reasonably detailed	11
The instructor gives examinations which stress unnecessary memorization	11
The instructor explains the reasons for criticisms of students' academic performance	5
The instructor gives examination questions which are clear	
The instructor realizes when students are bored or confused	11
The instructor returns examinations and other written assignments promptly to students and discussed with them	2, 6, 11
The instructor regularly seeks feedback from students about the courses they teach and their teaching	11
The instructor regularly informs students of their progress and performance, and they reinforce student learning	2, 5, 11
The instructor's marking and grading are clearly explained and accomplished fairly and impartially	8, 11

The instructor's examinations and other course requirements are worthwhile and reasonable in their expectations 2, 11

The instructor's marking and grading are clearly explained and accomplished fairly and impartially 8, 11

RESEARCH

The instructor relates their research activities with the class 0

The instructor is accomplished in research 3

The instructor relates subject matter to existing research 0

The instructor knows the current research and literature in their field 2

The instructor demonstrates a sincere interest in their research area 0

The instructor gives assignments using research journals 0

To what extent is your instructor published in a refereed journal 0

How involved are faculty in your department involved in research 0

To what extent does your instructor share their his/her results of their research with the class 0

To what extent do the faculty in your department share their research with classes 0

To what extent do you feel that the instructors research involvement takes away from the course objectives 0

To what extent do you feel that the instructor teaching takes away from their research involvement 0

What is the purpose of research within the university/college? 0

What do you see as the relationship between research and instruction? 0

AVAILABILITY

The instructor is available for academic/course information outside of class 5, 10, 12

The instructor is available for career concerns outside of class	5, 6, 10, 12
The instructor is available for personal problem consultation outside of class	5, 10, 12
The instructor is available for intellectual discussions outside of class	5, 10, 12
The instructor is available for campus issues discussions outside of class	5, 10, 12
The instructor is available for informal socializing outside of class	5, 10, 12
The instructor welcomes students seeking help/advice	8
The instructor is accessible to individual students	8
I feel comfortable approaching my instructor outside of class.	7
Office hours are communicated to the class	9
Office hours of the instructor are maintained	0
There are other times besides office hours that the instructor is available	0

Sources for Instrument Items

0. Researcher developed these items for the study.
1. Baum, P. & Brown, W.W. (1980). Student and faculty perceptions of teaching effectiveness. Research in Higher Education, 13 (3), 233-242.
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5. Feldman, K.A. (1976). The superior college teacher from the students' view. Research in Higher Education, 5, 243-288.
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7. Fusani, D.S. (1994). "Extra-class" communication: Frequency, immediacy, self-disclosure, and satisfaction in student-faculty interaction outside the classroom. Journal of Applied Communication Research, 22, 232-255.
8. Marsh, H.W. & Bailey, M. (1993). Multidimensional students' evaluation of teaching effectiveness. Journal of Higher Education, 64 (1), 1-18.
9. Marsh, H.W. (1990). Multidimensional students' evaluations of teaching effectiveness: A test of alternative higher-order structures. Journal of Educational Psychology, 83 (2), 285-296.
10. Pascarella, E.T. & Terenzini, P.T. (1979). Student-faculty informal relationships and freshman year educational outcomes. The Journal of Educational Research.
11. Romine, S. (1974). Student and faculty perceptions of an effective university instructional climate. The Journal of Educational Research, V, P.
12. Terenzini, P.T. & Pascarella, E.T. (1980). Student/faculty relationships and freshman year educational outcomes: A further investigation. Journal of College Student Personnel, 521-528.

APPENDIX D

STUDENT PERCEPTIONS OF TEACHING EFFECTIVENESS,
RESEARCH ACTIVITY AND AVAILABILITY

Dear Student,

Your class and your instructor have been selected to participate in a national study regarding student and faculty perceptions of university faculty member's teaching effectiveness, research/scholarly activities and availability. Please rate your instructor **for this class** on all of the following statements. Upon completion of this survey, please return the questionnaire to the appointed students who will deliver all questionnaires to the dean's office.

For the purpose of this study, **teaching** is defined as effectively communicating one's knowledge to students.

Use the following scale to rate your instructor on his/her **teaching practices**:

<u>Instructor Characteristics</u>	Strongly Agree			Strongly Disagree	
The instructor has an enthusiasm for teaching.	5	4	3	2	1
The instructor has a tolerance of other peoples' views.	5	4	3	2	1
The instructor shows personal interest in students.	5	4	3	2	1
The instructor demonstrates an ability to direct discussion.	5	4	3	2	1
The instructor has a sense of humor.	5	4	3	2	1
The instructor is dynamic and energetic.	5	4	3	2	1
The instructor is enthusiastic about his/her courses.	5	4	3	2	1
The instructor is sincerely interested in students.	5	4	3	2	1
The instructor respects students as individuals.	5	4	3	2	1
The instructor has an interesting style of classroom presentation.	5	4	3	2	1
The instructor is personable and has a sense of humor.	5	4	3	2	1
The instructor maintains a friendly, informal classroom atmosphere.	5	4	3	2	1
The instructor is conscientious about his/her instructional responsibilities.	5	4	3	2	1
The instructor speaks with expressiveness and variety in tone of voice.	5	4	3	2	1
The instructor is fair to all students.	5	4	3	2	1
The instructor is sensitive to class level and progress.	5	4	3	2	1
 <u>Classroom presentation</u>					
The instructor knows how to teach.	5	4	3	2	1
The instructor knows what to teach.	5	4	3	2	1
The instructor speaks clearly and can easily be heard.	5	4	3	2	1
The instructor explains clearly and is easy to understand and follow.	5	4	3	2	1
The instructor presents other point of view as well as their own.	5	4	3	2	1
The instructor presentations and questions are thought provoking.	5	4	3	2	1
The instructor is careful and precise in answering questions.	5	4	3	2	1
The instructor utilizes concepts and facts from related fields.	5	4	3	2	1
The instructor compares and contrasts the implication of various theories.	5	4	3	2	1

The instructor uses a well balanced variety of instructional techniques, including such things and audio-visual aids, case studies, field trips, and resource personnel, as appropriate to the given course.	5	4	3	2	1
The instructor summarizes major points frequently.	5	4	3	2	1
The instructor promotes teacher-student discussion.	5	4	3	2	1
The instructor finds ways to help students answer their own questions.	5	4	3	2	1
The instructor encourages students to express themselves freely and openly.	5	4	3	2	1
The instructor is receptive to student questions.	5	4	3	2	1
The instructor explains new ideas by relating them to familiar concepts.	5	4	3	2	1
The instructor uses more than one approach as necessary.	5	4	3	2	1
The instructor demonstrates the importance and significance of the subject matter.	5	4	3	2	1
The instructor makes presentations which are dry and dull.	5	4	3	2	1
The instructor makes it clear how each topic fit into the course.	5	4	3	2	1
The instructor encourages student comments even when they turn out to be incorrect or irrelevant.	5	4	3	2	1
The instructor summarizes material in a manner which aided retention.	5	4	3	2	1
The instructor stimulates students to intellectual effort beyond that required by most courses.	5	4	3	2	1
The instructor clearly states the objectives of the course.	5	4	3	2	1
The instructor explains course material clearly, and explanations were to the point.	5	4	3	2	1
The instructor relates course material to real life situations.	5	4	3	2	1
The instructor has an interesting presentation of subject matter.	5	4	3	2	1
The instructor has a thorough knowledge of subject matter.	5	4	3	2	1
The instructor is prepared and organized.	5	4	3	2	1
The instructor is clear and understandable.	5	4	3	2	1
The instructor has clear objectives and requirements.	5	4	3	2	1

Evaluation, Feedback, and Reinforcement

The instructor gives examination questions which are unreasonably detailed.	5	4	3	2	1
The instructor gives examinations which stress unnecessary memorization.	5	4	3	2	1
The instructor explains the reasons for criticisms of students' academic performance.	5	4	3	2	1
The instructor gives examination questions which are unclear.	5	4	3	2	1
The instructor realizes when students are bored or confused.	5	4	3	2	1
The instructor returns examinations and other written assignments promptly to students and discusses with them.	5	4	3	2	1
The instructor regularly seeks feedback from students about the courses they teach and their teaching.	5	4	3	2	1

The instructor regularly informs students of their progress and performance, and they reinforce student learning.	5	4	3	2	1
The instructor's marking and grading are clearly explained and accomplished fairly and impartially.	5	4	3	2	1
The instructor's examinations and other course requirements are worthwhile and reasonable in their expectations.	5	4	3	2	1

For the purpose of this study, **research/scholarly activities** refers to the process of discovering and transmitting new knowledge, applying new knowledge to consequential problems and/or synthesizing knowledge to a larger whole.

Use the following scale to rate your instructor on his/her research activities.

	Strongly Agree			Strongly Disagree	Don't Know	
The instructor relates their research/scholarly activities to the class.	5	4	3	2	1	0
The instructor is accomplished in research/scholarly activities	5	4	3	2	1	0
The instructor relates course content to existing research/scholarly findings and methods.	5	4	3	2	1	0
The instructor knows the current research/scholarly literature in their field.	5	4	3	2	1	0
The instructor demonstrates a sincere interest in their research/scholarly activities.	5	4	3	2	1	0
The instructor gives assignments which require the student to use research journals.	5	4	3	2	1	0
	Always	Sometimes	Never	Don't Know		
To what extent does the instructor share results of his/her research/scholarly activities with the class?	5	4	3	2	1	0
To what extent do you feel that the instructor's research/scholarly activities detracts from his/her teaching effectiveness?	5	4	3	2	1	0
To what extent do you feel that the instructor's teaching detracts from his/her research/scholarly activities?	5	4	3	2	1	0
To what extent does the instructor obtain grant funding?	5	4	3	2	1	0
To what extent does the instructor publish manuscripts or books?	5	4	3	2	1	0
To what extent does the instructor give presentations or participate in design shows/exhibits?	5	4	3	2	1	0

Please read each question and answer as completely as possible.

What is the purpose of research within the university/college?

What do you see as the relationship between research and instruction?

For the purpose of this study, availability is defined as the accessibility of the instructor outside the classroom for academic advisement, intellectual discussions, and consultation.

Use the following scale to rate the instructor on his/her availability to students outside of scheduled office hours..

	Strongly Agree			Strongly Disagree	
The instructor is available for academic/course information outside of class.	5	4	3	2	1
The instructor is available for career concerns outside of class.	5	4	3	2	1
The instructor is available for personal problem consultation outside of class.	5	4	3	2	1
The instructor is available for intellectual discussions outside of class.	5	4	3	2	1
The instructor is available for campus issues discussions outside of class.	5	4	3	2	1
The instructor is available for informal socializing outside of class.	5	4	3	2	1
The instructor welcomes students seeking help/advice.	5	4	3	2	1
The instructor is accessible to individual students.	5	4	3	2	1
I feel comfortable approaching my instructor outside of class..	5	4	3	2	1
The instructors' office hours are communicated to the class.	5	4	3	2	1
The instructors' office hours are maintained.	5	4	3	2	1
There are other times besides office hours that the instructor is available?	5	4	3	2	1

STUDENT BACKGROUND

Please check one for each of the following. You will not be individually identified, only group data will be used.

1. Gender

- Male
- Female

2. Residential Status:

- Resident Student
- International Student

3. Age: _____

4. Academic Classification

- Freshman
- Sophomore
- Junior
- Senior
- Graduate

5. Academic College/School:

_____ Human Sciences (or equivalent, i.e., Home Economics, Human Ecology, Human
Development, etc.)

_____ Engineering/Technology

6. Department: Please include the entire name of your department:

APPENDIX E

FACULTY PERCEPTIONS OF TEACHING EFFECTIVENESS,
RESEARCH ACTIVITY AND AVAILABILITY

Dear Faculty,

You have been selected by your dean to participate in a national study regarding student and faculty perceptions of university faculty members' teaching effectiveness, research/scholarly activities and availability. Please rate yourself on all of the following statements for upper division undergraduate instruction, and return the completed questionnaire to the dean's office.

Also, please select a junior or senior level class that you currently teach and administer the student version of this survey to the class. We ask that you appoint a student to distribute and collect the questionnaire and return the completed questionnaires to the dean's office. We would appreciate your cooperation in insuring that students feel free to give honest responses to all items of the questionnaire.

For the purpose of this study, teaching is defined as effectively communicating one's knowledge to students.

Using the following scale rate yourself on your **teaching practices** for your upper division undergraduate classes:

	Strongly Agree			Strongly Disagree	
<u>Instructor's personality</u>					
I have an enthusiasm for teaching.	5	4	3	2	1
I have a tolerance of other peoples' views.	5	4	3	2	1
I show personal interest in students.	5	4	3	2	1
I demonstrate an ability to direct discussion.	5	4	3	2	1
I have a sense of humor.	5	4	3	2	1
I am dynamic and energetic.	5	4	3	2	1
I am enthusiastic about my courses.	5	4	3	2	1
I am sincerely interested in students.	5	4	3	2	1
I respect students as individuals.	5	4	3	2	1
I have an interesting style of classroom presentation.	5	4	3	2	1
I am personable.	5	4	3	2	1
I maintain a friendly, informal classroom atmosphere.	5	4	3	2	1
I am conscientious about my instructional responsibilities.	5	4	3	2	1
I speak with expressiveness and variety in tone of voice.	5	4	3	2	1
I am fair to all students.	5	4	3	2	1
I am sensitive to class level and progress.	5	4	3	2	1
<u>Classroom presentation</u>					
I know how to teach.	5	4	3	2	1
I know what to teach.	5	4	3	2	1
I speak clearly and can easily be heard.	5	4	3	2	1
I explain clearly and am easy to understand and follow.	5	4	3	2	1
I present other points of view as well as my own.	5	4	3	2	1
My presentations and questions are thought provoking.	5	4	3	2	1

I am careful and precise in answering questions.	5	4	3	2	1
I utilize concepts and facts from related fields.	5	4	3	2	1
I compare and contrast the implications of various theories.	5	4	3	2	1
I use a well balanced variety of instructional techniques, including such things and audio-visual aids, case studies, field trips, and resource personnel, as appropriate to the given course.	5	4	3	2	1
I summarize major points frequently.	5	4	3	2	1
I promote teacher-student discussion.	5	4	3	2	1
I find ways to help students answer their own questions.	5	4	3	2	1
I encourage students to express themselves freely and openly.	5	4	3	2	1
I am receptive to student questions.	5	4	3	2	1
I explain new ideas by relating them to familiar concepts.	5	4	3	2	1
I use more than one approach as necessary.	5	4	3	2	1
I demonstrate the importance and significance of the subject matter.	5	4	3	2	1
I make presentations which are dry and dull.	5	4	3	2	1
I make it clear how each topic fits into the course.	5	4	3	2	1
I encourage student comments even when they turn out to be incorrect or irrelevant.	5	4	3	2	1
I summarize material in a manner which aided retention.	5	4	3	2	1
I stimulate students to intellectual effort beyond that required by most courses.	5	4	3	2	1
I clearly state the objectives of the course.	5	4	3	2	1
I explain course material clearly, and explanations are to the point.	5	4	3	2	1
I relate course material to real life situations.	5	4	3	2	1
I have an interesting presentation of subject matter.	5	4	3	2	1
I have a thorough knowledge of subject matter.	5	4	3	2	1
I am prepared and organized.	5	4	3	2	1
I am clear and understandable.	5	4	3	2	1
I have clear objectives and requirements.	5	4	3	2	1

Evaluation, Feedback, and Reinforcement

I give examination questions which are unreasonably detailed.	5	4	3	2	1
I give examinations which stress unnecessary memorization.	5	4	3	2	1
I explain the reasons for criticisms of students' academic performance.	5	4	3	2	1
I realize when students are bored or confused.	5	4	3	2	1
I return examinations and other written assignments promptly to students and discuss with them.	5	4	3	2	1
I regularly seek feedback from students about the courses I teach.	5	4	3	2	1
I regularly inform students of their progress and					

performance, and reinforce student learning.	5	4	3	2	1
My marking and grading are clearly explained and accomplished fairly and impartially.	5	4	3	2	1
My examinations and other course requirements are worthwhile and reasonable in expectations.	5	4	3	2	1
I relate my research/scholarly activities to my classes	5	4	3	2	1
I relate course content to existing research/scholarly findings and methods	5	4	3	2	1
I give assignments which require students to use research journals	5	4	3	2	1

For the purpose of this study, **research/scholarly activities** refer to the process of discovering and transmitting new knowledge, applying new knowledge to consequential problems, and/or synthesizing knowledge to a larger whole.

Use the following scale to rate yourself on your research/scholarly activities.

	Strongly Agree			Strongly Disagree	
I am actively engaged in research/scholarly activities	5	4	3	2	1
I know the current research/scholarly literature in my field	5	4	3	2	1
I demonstrate a sincere interest in my research area.	5	4	3	2	1
I actively involve undergraduate students in my research	5	4	3	2	1
I actively involve graduate students in my research	5	4	3	2	1

	Always	Sometimes		Never	
To what extent do you share results of your research/scholarly activities with the class	5	4	3	2	1
To what extent do you feel that your research/scholarly activities detracts from the course objectives	5	4	3	2	1
To what extent do you feel that your teaching detracts from your research/scholarly activities	5	4	3	2	1

Please read each question and answer as completely as possible.

What is the purpose of research within the university/college?

What do you see as the relationship between research and teaching?

For the purpose of the study, availability is defined as the accessibility of the instructor outside the classroom for academic advisement, intellectual discussions and consultations.

Use the following scale to rate yourself on your **availability** to students outside of scheduled office hours.

	Strongly Agree			Strongly Disagree	
I am available for academic/course information outside of class.	5	4	3	2	1
I am available for career concerns outside of class.	5	4	3	2	1

I am available for personal problem consultation outside of class.	5	4	3	2	1
I am available for intellectual discussions outside of class.	5	4	3	2	1
I am available for campus issues discussions outside of class.	5	4	3	2	1
I am available for informal socializing outside of class.	5	4	3	2	1
The instructor welcomes students seeking help/advice.	5	4	3	2	1
I am accessible to individual students.	5	4	3	2	1
My students feel comfortable approaching me outside of class.	5	4	3	2	1
My office hours are communicated to the class.	5	4	3	2	1
My office hours are maintained.	5	4	3	2	1
There are other times besides office hours that I am available.	5	4	3	2	1

FACULTY RESPONSIBILITIES

Please complete the following section regarding your responsibilities.

Typically, my responsibilities during the academic year are:

teaching _____%, research _____%, service _____%, administration _____%, formal advising _____%.

I advise approximately _____ undergraduate students _____ graduate students _____.

During the academic year, I spend _____ hours a week advising students.

During the academic year, I participate in consulting for extra compensation.

_____ Yes _____ No

If yes, how many times a month _____ 1-3 _____ 4-8 _____ 9-12 _____ More than 13

Within the last 5 years, please indicated the extent of your teaching responsibilities:

- _____ Courses per year
- _____ Contact hours per week
- _____ Credit hours per year

Within the last 5 years, please indicated the approximate number for each scholarly output category given below that you were personally involved in:

- _____ Proposals for external funding
- _____ Proposals for internal funding
- _____ Refereed/invited scholarly presentations
- _____ Refereed scholarly manuscripts in print or in press
- _____ Other publications
- _____ Juried exhibits or shows
- _____ Other (please specify) _____

Within the last 5 years, please indicate the approximate number for each service activity given below that you were personally involved in:

- University-wide committees
- College/school committees
- Departmental committees
- State professional associations
- National professional associations
- International professional associations
- Other (please specify) _____

Within the last 5 years, please indicate the approximate number for each outreach category given below that you were personally involved in:

- Continuing education programming
- Cooperative extension programming
- Seminar programming
- Off-campus courses
- Other (please specify) _____

FACULTY BACKGROUND

Please check one of each of the following. This information will not be used to identify you. Only group data will be used.

1. Gender

- Male
- Female

2. Age: _____

3. Current Academic Rank:

- Instructor
- Assistant Professor
- Associate Professor
- Professor

4. College Affiliation

- Human Sciences (or equivalent, i.e., Home Economics, Human Ecology, Human Development, etc.)
- Engineering/Technology
- Other (please specify) _____

4. Departmental Affiliation: _____

6. Total years employed in full-time teaching or teaching/research in higher education: _____

APPENDIX F

Responses to Open Ended Questions

Faculty and their students were asked to define the following two open-ended questions:

- What is the purpose of research within the university/college?
- What do you see as the relationship between research and teaching?

The responses were coded and frequencies were calculated in order determine if faculty and their students had similar definitions. Of the 283 Human Sciences students that answered the first question, 79 indicated that the purpose of research was to improve and broaden knowledge and techniques. Sixty-seven students defined the purpose of research as gaining and discovering new information while 38 said it was for faculty to stay current in his/her field. The remaining 99 student responses varied from “to get money” to “making up for deficiencies in salaries”.

Engineering students responded similarly with 55 of the 163 indicating that the purpose of research was to improve and broaden knowledge and techniques. Twenty-seven students said the purpose was to gain money, 11 said it was to stay current in his/her field and ten said it was to develop new ideas and products. Like the Human Sciences students the remaining Engineering student responses varied considerably.

When Human Sciences student responded to the relationship between research and teaching 116 out of 292 said it was to help instructors keep current with new findings in his/her field and pass the information on the students. Fifty-seven students indicated that research enhanced teaching and/or it complemented each other and current research influenced teaching information. Seventeen students said that research was applied to real life i.e. the classroom. Twenty-five Human Sciences students indicated that teaching should come first and research detracted from teaching. Of the 159 Engineering students who responded 46 also indicated that it was to keep current with new findings in the instructors’ field. Thirty Engineering students defined the relationship between teaching and research complementary and that research enhanced and

influenced teaching. Twenty-three students said that research detracted from teaching and that research should not be required in order to teach. Overall, students in both colleges/schools agreed that research did enhance teaching and that it was used to improve and broaden knowledge.

Of the 34 faculty, ten Human Sciences and four Engineering defined the purpose of research as the improvement and broadening of knowledge. Five Human Sciences and two Engineering faculty said it was to gain and discover new information. Two Human Sciences faculty indicated that it was to stay current in his/her field, one faculty said it was to get money and one said they agreed with Boyer's definition. Two Engineering faculty indicated that the purpose of research was to further scientific inquiry and two said it was to benefit the student. Two Human Sciences and three Engineering faculty did not respond to the questions.

Of the 21 Human Sciences faculty nine said that the relationship between teaching and research complemented each other and five faculty said it was to stay current in his/her field. Four Engineering faculty said that the relationship between teaching and research was to keep current with new findings in his/her field and two said that teaching and research complemented each other. Five of the Engineering faculty and two of the Human Sciences faculty did not respond to the question.

APPENDIX G

Table 13
Comparisons of Students' Perceptions by College Regarding Faculty Teaching Effectiveness
 Research/Scholarly Activities and Availability to Students.

Characteristics	Humans Sciences (n=425) <i>Mean</i>	Engineering (n=262) <i>Mean</i>	<i>Prob t</i>
<u>Instructor Characteristics</u> ^a			
Instructor has enthusiasm for teaching	4.52	4.49	
Instructor has tolerance of other people's views	4.27	4.17	
Instructor show personal interest in students	4.26	4.21	
Instructor demonstrates the ability to direct discussion	4.28	4.20	
Instructor has a sense of humor	4.16	4.48	0.0001*
Instructor is dynamic and energetic	4.17	4.29	0.0386*
Instructor is enthusiastic about his/her courses	4.51	4.43	
Instructor is sincerely interested in students	4.22	4.16	
Instructor respects students as individuals	4.31	4.27	
Instructor has an interesting style of classroom presentation	3.64	3.95	0.0001*
Instructor maintains a friendly classroom atmosphere	4.32	4.26	
Instructor is personable	4.12	4.26	0.0351*
Instructor is conscientious about instructional responsibilities	4.35	4.16	0.0027*
Instructor speaks with expressiveness and variety in tone of voice	4.09	4.10	
Instructor is fair to all students	4.21	4.15	
Instructor is sensitive to class level and progress	4.07	4.05	
<u>Classroom Presentation</u> ^a			
Instructor knows how to teach	4.27	4.16	
Instructor knows what to teach	4.37	4.32	
Instructor speaks clearly and can easily be heard	4.46	4.40	
Instructor explains clearly and is easy to understand and follow	4.09	4.01	
Instructor presents other points of view	4.25	3.93	0.0001*
Instructors' presentation and questions are thought provoking	4.11	3.95	0.0198*
Instructor is careful and precise in answering questions	4.10	3.98	
Instructor utilizes concepts and facts from related fields	4.18	4.21	
Instructor compares and contrasts various theories	4.15	3.98	0.0109*
Instructor uses a well balanced variety of instructional techniques, including such things as audio-visual aids, case studies, field trips, and resource personnel, as appropriate to the course	3.73	3.64	
Instructor summarizes major point frequently	3.99	4.00	
Instructor promotes teacher-student discussion	4.12	3.81	0.0001*
Instructor finds ways to help students answer their own questions	3.88	3.86	
Instructor encourages students to express themselves freely and openly	4.17	4.03	0.0018*
Instructor is receptive to student questions	4.39	4.26	

(table continues)

Characteristics	Humans Sciences (n=425) <i>Mean</i>	Engineering (n=262) <i>Mean</i>	<i>Prob t</i>
Instructor explains new ideas by relating them to familiar concepts	4.12	4.07	
Instructor uses more than one approach as necessary	3.92	3.87	
Instructor demonstrates the importance and significance of the subject matter	4.26	4.19	
Instructor makes presentations which are dry and dull	2.34	2.49	
Instructor makes it clear how each topic fits into the course	3.99	3.87	
Instructor encourages students comments even when they turn out to be incorrect or irrelevant	4.09	3.87	
Instructor summarizes material which aided retention	3.82	3.61	0.0041*
Instructor stimulates students to intellectual effort beyond that required by most courses	3.87	3.77	
Instructor clearly states objectives of the course	4.31	3.98	0.0001*
Instructor explains course material clearly, and explanations are to the point	3.98	3.87	
Instructor relates course material to real life situations	4.33	4.25	
Instructor has an interesting presentation of subject matter	3.75	3.90	
Instructor has thorough knowledge of subject matter	4.69	4.57	0.0190*
Instructor is prepared and organized	4.54	4.21	0.0001*
Instructors' presentations are clear and understandable	4.24	4.06	0.0150*
Instructor has clear objectives and requirements	4.39	4.05	0.0001*
<u>Evaluation, Feedback and Reinforcement</u> ^a			
Instructor gives examinations questions which are unreasonably detailed.	2.63	2.73	
Instructor gives examinations which stress unnecessary memorization	2.39	2.04	0.0001*
Instructor explains the reasons for criticisms of students' academic performance	3.41	3.26	
Instructor gives examination questions which are unclear	2.41	2.54	
Instructor realizes when students are bored or confused	3.33	3.45	
Instructor returns examinations and assignments promptly	4.05	3.68	0.0001*
Instructor regularly seeks feedback from students about the courses he/ she teaches	3.56	3.47	
Instructor informs students of progress and performance	3.65	3.31	0.0001*
Instructors' marking and grading is clearly explained and fair	4.03	3.66	0.0001*
Instructors examinations and assignments are worthwhile and reasonable in expectations	3.83	3.64	0.0203*
<u>Research/Scholarly Activities</u>			
Instructor relates his/her research/scholarly activities to the class ^b	4.22	3.61	0.0001*

(table continues)

Characteristics	Humans Sciences (n=425)	Engineering (n=262)	Prob <i>t</i>
	<i>Mean</i>	<i>Mean</i>	
Instructor is accomplished in research/scholarly activities ^b	4.50	4.21	0.0001*
Instructor relates course content to existing research/scholarly findings and methods ^b	4.35	3.69	0.0001*
Instructor knows current research/scholarly literature in his/her field ^b	4.53	4.23	0.0001*
Instructor demonstrates a sincere interest in research/scholarly activities ^b	4.49	4.22	0.0004*
Instructor gives assignments which require the student to use research journals ^b	3.33	2.21	0.0001*
Extent instructor shares results of his/her research/scholarly activities with the class ^c	3.36	2.67	0.0001*
Extent instructors' research/scholarly activities detracts from his/her teaching effectiveness ^c	1.73	2.00	0.0074*
Extent instructors' teaching detracts from his/her research/scholarly activities ^c	1.79	2.47	0.0001*
Extent instructor obtains grant funding ^c	3.32	3.55	
Extent instructor publishes manuscripts or books ^c	3.46	3.17	
Extent instructor gives presentations or participates in design shows/exhibits ^c	3.25	3.24	
<u>Availability to Students Characteristics^a</u>			
Instructor is available for academic course information	4.32	4.02	0.0001*
Instructor is available for discussion about career concerns	4.10	3.79	0.0001*
Instructor is available for personal problem consultation	3.75	3.41	0.0001*
Instructor is available for discussion about intellectual information	4.03	3.80	0.0096*
Instructor is available for discussion about campus issues	3.63	3.36	0.0109*
Instructor is available for informal socializing outside of class	3.21	3.32	
Instructor welcomes students seeking advice	4.32	3.98	0.0001*
Instructor is accessible to students	4.38	4.13	0.0004*
Students feel comfortable approaching instructor outside of class	4.25	4.16	
Instructors' office hours are communicated	4.49	4.32	0.0093*
Instructors' office hours are maintained	4.38	4.16	0.0034*
Instructor is available other times besides office hours	4.16	4.07	

$p \leq 0.05$

Note. ^a based on a 5-point response scale with 5=strongly agree, 3=neutral, 1=strongly disagree;

^b based on 6-point response scale with 5=strongly agree, 3=neutral, 1=strongly disagree, 0="don't know";

^c based on 6-point response scale with 5=always, 3=sometimes, 1=never, 0="don't know".

Table 14
Comparisons of Faculty Perceptions by College Regarding Faculty Teaching Effectiveness,
 Research/Scholarly Activities and Availability to Students.

Characteristics	Humans Sciences (n=21) <i>Mean</i>	Engineering (n=13) <i>Mean</i>	<i>Prob t</i>
<u>Instructor Characteristics</u> ^a			
Instructor has enthusiasm for teaching	4.76	4.46	
Instructor has tolerance of other people's views	4.43	4.23	
Instructor show personal interest in students	4.62	4.31	
Instructor demonstrates the ability to direct discussion	4.19	3.69	
Instructor has a sense of humor	4.48	4.31	
Instructor is dynamic and energetic	4.24	4.23	
Instructor is enthusiastic about his/her courses	4.71	4.38	
Instructor is sincerely interested in students	4.62	4.38	
Instructor respects students as individuals	4.76	4.38	
Instructor has an interesting style of classroom presentation	3.76	3.54	
Instructor maintains a friendly classroom atmosphere	4.38	4.23	
Instructor is personable	4.38	3.46	0.0359*
Instructor is conscientious about instructional responsibilities	4.71	4.69	
Instructor speaks with expressiveness and variety in tone of voice	4.23	4.00	
Instructor is fair to all students	4.62	4.54	
Instructor is sensitive to class level and progress	4.48	4.23	
<u>Classroom Presentation</u> ^a			
Instructor knows how to teach	4.33	4.08	
Instructor knows what to teach	4.71	4.38	
Instructor speaks clearly and can easily be heard	4.48	4.00	
Instructor explains clearly and is easy to understand and follow	3.81	3.85	
Instructor presents other points of view	4.33	3.46	0.01558
Instructors' presentation and questions are thought provoking	4.19	3.85	
Instructor is careful and precise in answering questions	4.05	3.85	
Instructor utilizes concepts and facts from related fields	4.43	4.00	
Instructor compares and contrasts various theories	3.86	3.69	
Instructor uses a well balanced variety of instructional techniques, including such things as audio-visual aids, case studies, field trips, and resource personnel, as appropriate to the course	3.81	3.54	
Instructor summarizes major point frequently	3.71	4.38	0.0203*
Instructor promotes teacher-student discussion	4.48	3.77	
Instructor finds ways to help students answer their own questions	3.81	3.54	
Instructor encourages students to express themselves freely and openly	4.33	4.23	
Instructor is receptive to student questions	4.62	4.31	

(table continues)

Characteristics	Humans Sciences	Engineering	Prob <i>t</i>
	(n=21) <i>Mean</i>	(n=13) <i>Mean</i>	
Instructor explains new ideas by relating them to familiar concepts	4.14	4.38	
Instructor uses more than one approach as necessary	4.24	3.54	
Instructor demonstrates the importance and significance of the subject matter	4.43	4.54	
Instructor makes presentations which are dry and dull	2.00	2.08	
Instructor makes it clear how each topic fits into the course	4.10	3.85	
Instructor encourages students comments even when they turn out to be incorrect or irrelevant	4.05	3.92	
Instructor summarizes material which aided retention	3.90	3.69	
Instructor stimulates students to intellectual effort beyond that required by most courses	4.10	3.77	
Instructor clearly states objectives of the course	4.43	4.23	
Instructor explains course material clearly, and explanations are to the point	4.29	4.00	
Instructor relates course material to real life situations	4.57	4.15	
Instructor has an interesting presentation of subject matter	3.86	3.62	
Instructor has thorough knowledge of subject matter	4.48	4.38	
Instructor is prepared and organized	4.48	4.46	
Instructor has clear objectives and requirements	4.52	4.46	
<u>Evaluation, Feedback and Reinforcement</u> ^a			
Instructor gives examinations questions which are unreasonably detailed	1.86	2.31	
Instructor gives examinations which stress unnecessary memorization	1.62	1.62	
Instructor realizes when students are bored or confused	4.00	4.08	
Instructor returns examinations and assignments promptly	4.24	4.08	
Instructor regularly seeks feedback from students about the courses he/ she teaches	4.05	3.92	
Instructor informs students of progress and performance	4.24	3.69	
Instructors' marking and grading is clearly explained and fair	4.43	4.00	
Instructors examinations and assignments are worthwhile and reasonable in expectations	4.38	4.15	
<u>Research/Scholarly Activities</u>			
Instructor relates his/her research/scholarly activities to the class ^b	4.33	4.15	
Instructor is accomplished in research/scholarly activities ^b	4.62	4.69	
Instructor relates course content to existing research/scholarly findings and methods ^b	4.29	3.85	

(table continues)

Characteristics	Humans Sciences	Engineering	Prob <i>t</i>
	(n=21) <i>Mean</i>	(n=13) <i>Mean</i>	
Instructor knows current research/scholarly literature in his/her field ^b	4.38	4.46	
Instructor demonstrates a sincere interest in research/scholarly activities ^b	4.57	4.54	
Instructor gives assignments which require the student to use research journals ^b	4.00	2.15	0.0001*
Extent instructor shares results of his/her research/scholarly activities with the class ^c	3.81	3.23	
Extent instructors' research/scholarly activities detracts from his/her teaching effectiveness ^c	1.76	2.00	
Extent instructors' teaching detracts from his/her research/scholarly activities ^c	2.86	2.69	
<u>Availability to Students Characteristics</u> ^a			
Instructor is available for academic course information	4.71	4.38	
Instructor is available for discussion about career concerns	4.48	3.85	0.0346*
Instructor is available for personal problem consultation	4.05	3.54	
Instructor is available for discussion about intellectual information	4.33	4.15	
Instructor is available for discussion about campus issues	3.67	3.23	
Instructor is available for informal socializing outside of class	2.62	2.62	
Instructor welcomes students seeking advice	4.57	4.08	0.0293*
Instructor is accessible to students	4.67	4.00	0.0010*
Students feel comfortable approaching instructor outside of class	4.14	3.77	
Instructors' office hours are communicated	4.76	4.54	
Instructors' office hours are maintained	4.62	4.23	
Instructor is available other times besides office hours	4.86	4.62	

$p \leq 0.05$

Note. ^a based on a 5-point response scale with 5=strongly agree, 3=neutral, 1=strongly disagree;

^b based on 6-point response scale with 5=strongly agree, 3=neutral, 1=strongly disagree, 0="don't know";

^c based on 6-point response scale with 5=always, 3=sometimes, 1=never, 0="don't know".

Table 15

Comparison of Faculty and Student Perceptions Regarding Faculty Teaching Effectiveness, Research Activities, and Availability to Students within Each College.

Characteristics	Humans Sciences			Engineering		
	Faculty (n=21)	Students (n=425)	Prob <i>t</i>	Faculty (n=13)	Students (n=262)	Prob <i>t</i>
	<i>Means</i>	<i>Means</i>		<i>Means</i>	<i>Means</i>	
<u>Instructor Characteristics</u> ^a						
Instructor has enthusiasm for teaching	4.76	4.52		4.46	4.49	
Instructor has tolerance of other people's views	4.43	4.27		4.23	4.17	
Instructor show personal interest in students	4.62	4.26	0.0139*	4.31	4.21	
Instructor demonstrates the ability to direct discussion	4.19	4.28		3.69	4.15	0.0150*
Instructor has a sense of humor	4.48	4.16		4.31	4.48	
Instructor is dynamic and energetic	4.24	4.17		4.23	4.29	
Instructor is enthusiastic about his/her courses	4.71	4.51		4.38	4.43	
Instructor is sincerely interested in students	4.62	4.22	0.0078*	4.38	4.16	
Instructor respects students as individuals	4.76	4.31	0.0014*	4.38	4.27	
Instructor has an interesting style						
of classroom presentation	3.76	3.64		3.54	3.95	0.0163*
Instructor maintains a friendly classroom atmosphere	4.38	4.32		4.23	4.41	
Instructor is personable	4.38	4.12		3.46	4.26	0.0008*
Instructor is conscientious about						
instructional responsibilities	4.71	4.35	0.0024*	4.69	4.16	0.0018*
Instructor speaks with expressiveness and variety in						
tone of voice	4.23	4.09		4.00	4.10	
Instructor is fair to all students	4.62	4.21	0.0059*	4.54	4.15	
Instructor is sensitive to class level and progress	4.48	4.07		4.23	4.05	
<u>Classroom Presentation</u> ^a						
Instructor knows how to teach	4.33	4.27		4.08	4.16	
Instructor knows what to teach	4.71	4.37	0.0041*	4.38	4.32	
Instructor speaks clearly and can easily be heard	4.48	4.46		4.00	4.40	
Instructor explains clearly and is easy to understand and						
follow	3.81	4.09		3.85	4.01	
Instructor presents other points of view	4.33	4.25		3.46	3.93	

(table continues)

Characteristics	Humans Sciences			Engineering		
	Faculty (n=21)	Students (n=425)	Prob <i>t</i>	Faculty (n=13)	Students (n=262)	Prob <i>t</i>
	<i>Means</i>	<i>Means</i>		<i>Means</i>	<i>Means</i>	
Instructors' presentation and questions are thought provoking	4.19	4.11		3.85	3.95	
Instructor is careful and precise in answering questions	4.05	4.10		3.85	3.98	
Instructor utilizes concepts and facts from related fields	4.43	4.18		4.00	4.21	
Instructor compares and contrasts various theories	3.86	4.15		3.69	3.98	
Instructor uses a well balanced variety of instructional techniques, including such things as audio-visual aids, case studies, field trips, and resource personnel, as appropriate to the course	3.81	3.73		3.54	3.64	
Instructor summarizes major point frequently	3.71	3.99		4.38	4.00	
Instructor promotes teacher-student discussion	4.48	4.12	0.0160*	3.77	3.81	
Instructor finds ways to help students answer their own questions	3.81	3.88		3.54	3.86	
Instructor encourages students to express themselves freely and openly	4.33	4.17		4.23	4.03	
Instructor is receptive to student questions	4.62	4.39		4.31	4.26	
Instructor explains new ideas by relating them to familiar concepts	4.14	4.12		4.38	4.07	
Instructor uses more than one approach as necessary	4.24	3.92	0.0397*	3.54	3.87	
Instructor demonstrates the importance and significance of the subject matter	4.43	4.26		4.54	4.19	
Instructor makes presentations which are dry and dull	2.00	2.34		2.08	2.49	
Instructor makes it clear how each topic fits into the course	4.10	3.99		3.85	3.87	
Instructor encourages students comments even when they turn out to be incorrect or irrelevant	4.05	4.09		3.92	3.87	
Instructor summarizes material which aided retention	3.90	3.82		3.69	3.61	
Instructor stimulates students to intellectual effort beyond that required by most courses	4.10	3.87		3.77	3.77	
Instructor clearly states objectives of the course	4.43	4.31		4.23	3.98	

(table continues)

Characteristics	Humans Sciences			Engineering		
	Faculty (n=21)	Students (n=425)	Prob <i>t</i>	Faculty (n=13)	Students (n=262)	Prob <i>t</i>
	<i>Means</i>	<i>Means</i>		<i>Means</i>	<i>Means</i>	
Instructor explains course material clearly, and explanations are to the point	4.29	3.98		4.00	3.87	
Instructor relates course material to real life situations	4.57	4.33		4.15	4.25	
Instructor has an interesting presentation of subject matter	3.86	3.75		3.62	3.90	
Instructor has thorough knowledge of subject matter	4.48	4.69		4.38	4.57	
Instructor is prepared and organized	4.48	4.54		4.46	4.21	
Instructor has clear objectives and requirements	4.52	4.39		4.46	4.05	
<u>Evaluation, Feedback and Reinforcement</u> ^a						
Instructor gives examinations questions which are unreasonably detailed	1.86	2.63	0.0003*	2.31	2.73	
Instructor gives examinations which stress unnecessary memorization	1.62	2.39	0.0001*	1.62	2.04	
Instructor realizes when students are bored or confused	4.00	3.33	0.0001*	4.08	3.45	0.0309*
Instructor returns examinations and assignments promptly	4.24	4.05		4.08	3.68	
Instructor regularly seeks feedback from students about the courses he/ she teaches	4.05	3.56		3.92	3.47	
Instructor informs students of progress and performance	4.24	3.65	0.0013*	3.69	3.31	
Instructors' marking and grading is clearly explained and fair	4.43	4.03		4.00	3.66	
Instructors examinations and assignments are worthwhile and reasonable in expectations	4.38	3.83	0.0016*	4.15	3.64	0.0071*
<u>Research/Scholarly Activities</u>						
Instructor relates his/her research/scholarly activities to the class ^b	4.33	4.22		4.15	3.61	0.0347*
Instructor is accomplished in research/scholarly activities ^b	4.62	4.50		4.69	4.21	0.0044*

(table continues)

Characteristics	Humans Sciences			Engineering		
	Faculty (n=21)	Students (n=425)	Prob <i>t</i>	Faculty (n=13)	Students (n=262)	Prob <i>t</i>
	<i>Means</i>	<i>Means</i>		<i>Means</i>	<i>Means</i>	
Instructor relates course content to existing research/ scholarly findings and methods ^b	4.29	4.35		3.85	3.69	
Instructor knows current research/scholarly literature in his/her field ^b	4.38	4.53		4.46	4.23	
Instructor demonstrates a sincere interest in research/ scholarly activities ^b	4.57	4.49		4.54	4.22	
Instructor gives assignments which require the student to use research journals ^b	4.00	3.59		2.15	2.21	
Extent instructor shares results of his/her research/ scholarly activities with the class ^o	3.81	3.36	0.0243*	3.23	2.67	0.0065*
Extent instructors' research/scholarly activities detracts from his/her teaching effectiveness ^o	1.76	1.73		2.00	2.00	
Extent instructors' teaching detracts from his/her research/scholarly activities ^o	2.86	1.79	0.0015*	2.69	2.47	
<u>Availability to Students Characteristics ^a</u>						
Instructor is available for academic course information	4.71	4.32	0.0011*	4.38	4.02	
Instructor is available for discussion about career concerns	4.48	4.10	0.0119*	3.85	3.79	
Instructor is available for personal problem consultation	4.05	3.75		3.54	3.40	
Instructor is available for discussion about intellectual information	4.33	4.03		4.15	3.79	0.0465*
Instructor is available for discussion about campus issues	3.67	3.63		3.23	3.35	
Instructor is available for informal socializing outside of class	2.62	3.21	0.0238*	2.62	3.32	0.0336*
Instructor welcomes students seeking advice	4.57	4.32		4.08	3.98	
Instructor is accessible to students	4.67	4.38	0.0158*	4.00	4.13	

(table continues)

Characteristics	Humans Sciences			Engineering		
	Faculty (n=21)	Students (n=425)	Prob <i>t</i>	Faculty (n=13)	Students (n=262)	Prob <i>t</i>
	<i>Means</i>	<i>Means</i>		<i>Means</i>	<i>Means</i>	
Students feel comfortable approaching instructor outside of class	4.14	4.25		3.77	4.16	
Instructors' office hours are communicated	4.76	4.49	0.0135*	4.54	4.31	
Instructors' office hours are maintained	4.62	4.38	0.0357*	4.23	4.16	
Instructor is available other times besides office hours	4.86	4.16	0.0001*	4.62	4.07	0.0127*

$p \leq 0.05$

Note. ^a based on a 5-point response scale with 5=strongly agree, 3=neutral, 1=strongly disagree;

^b based on 6-point response scale with 5=strongly agree, 3=neutral, 1=strongly disagree, 0="don't know"; ^c based on 6-point response scale with 5=always, 3=sometimes, 1=never, 0="don't know".

Table 16

Comparisons of Faculty and Student Perceptions by Faculty Rank Regarding Faculty Teaching Effectiveness, Research/Scholarly Activities and Availability to Students.

Characteristics	Assistant Professors		Prob <i>t</i>	Associate Professors		Prob <i>t</i>	Full Professors		Prob <i>t</i>
	Faculty	Student		Faculty	Student		Faculty	Student	
	(n=12) <i>Means</i>	(n=243) <i>Means</i>		(n=12) <i>Means</i>	(n=203) <i>Means</i>		(n=8) <i>Means</i>	(192) <i>Means</i>	
<u>Instructor Characteristics</u> ^a									
Instructor has enthusiasm for teaching	4.67	4.56		4.67	4.46		4.75	4.48	
Instructor has tolerance of other people's views	4.08	4.23		4.42	4.25		4.75	4.23	
Instructor show personal interest in students	3.50	3.50		3.83	3.72		4.25	3.92	
Instructor demonstrates the ability to direct discussion	4.00	4.32		3.92	4.32		4.25	4.15	
Instructor has a sense of humor	4.50	4.43		4.33	4.24		4.38	4.18	
Instructor is dynamic and energetic	4.25	4.37		4.00	4.18		4.38	4.09	
Instructor is enthusiastic about his/her courses	4.67	4.57		4.58	4.39		4.63	4.49	
Instructor is sincerely interested in students	4.42	4.26		4.42	4.13		4.75	4.18	0.0005*
Instructor respects students as individuals	4.50	4.30		4.67	4.24	0.0014*	4.75	4.32	
Instructor has an interesting style of classroom presentation	3.92	3.89		3.33	3.78		3.75	3.63	
Instructor is personable	4.00	4.32		3.83	4.10		4.38	4.13	
Instructor maintains a friendly classroom atmosphere	4.42	4.44		4.25	4.33		4.50	4.29	
Instructor is conscientious about his/her instructional responsibilities	4.67	4.37		4.67	4.27	0.0214*	4.88	4.27	0.0013*
Instructor speaks with expressiveness and variety in tone of voice	4.08	4.08		4.08	4.09		4.25	4.07	
Instructor is fair to all students	4.58	4.24		4.50	4.11	0.0347*	4.63	4.18	
Instructor is sensitive to class level and progress	4.08	4.08		4.25	4.06		4.38	3.94	
<u>Classroom Presentation</u> ^a									
Instructor knows how to teach	4.33	4.39		3.92	4.22		4.63	4.13	
Instructor knows what to teach	4.67	4.70		4.42	4.32		4.75	4.29	
Instructor speaks clearly and can easily be heard	4.25	4.45		4.25	4.39		4.38	4.44	

(table continues)

Characteristics	Assistant Professors		Prob <i>t</i>	Associate Professors		Prob <i>t</i>	Full Professors		Prob <i>t</i>
	Faculty	Student		Faculty	Student		Faculty	Student	
	(n=12)	(n=243)		(n=12)	(n=203)		(n=8)	(192)	
	<i>Means</i>	<i>Means</i>		<i>Means</i>	<i>Means</i>		<i>Means</i>	<i>Means</i>	
Instructor explains clearly and is easy to understand and follow	4.00	4.19		3.33	4.16	0.0048*	4.25	3.83	0.0427*
Instructor presents other points of view	3.67	4.13		4.17	4.09		4.23	4.17	
Instructors' presentation and questions are thought provoking	4.25	4.14		3.83	4.07		4.13	4.02	
Instructor is careful and precise in answering questions	4.00	4.19		3.92	4.01		4.00	3.96	
Instructor utilizes concepts and facts from related fields	3.92	4.27		4.42	4.11		4.50	4.13	
Instructor compares and contrasts various theories	3.67	4.06		3.50	4.03		4.25	4.18	
Instructor uses a well balanced variety of instructional techniques, including such things as audio-visual aids, case studies, field trips, and resource personnel, as appropriate to the course	3.67	3.68		4.08	3.90		3.78	3.48	
Instructor summarizes major point frequently	3.83	3.97		3.92	3.98		4.25	3.99	
Instructor promotes teacher-student discussion	4.17	3.92		4.17	4.02		4.50	4.07	
Instructor finds ways to help students answer their own questions	3.92	3.91		3.50	3.90		3.88	3.78	
Instructor encourages students to express themselves freely and openly	4.08	4.05		4.50	4.12	0.0381*	4.50	4.18	
Instructor is receptive to student questions	4.42	4.35		4.42	4.26		4.88	4.44	
Instructor explains new ideas by relating them to familiar concepts	4.25	4.20		4.08	4.08		4.38	3.97	
Instructor uses more than one approach as necessary	3.75	4.01		4.25	3.94		3.88	3.77	
Instructor demonstrates the importance and significance of the subject matter	4.42	4.32		4.42	4.19		4.75	4.16	
Instructor makes presentations which are dry and dull	2.17	2.27		2.00	2.27		2.00	2.60	
Instructor makes it clear how each topic fits into the course	3.75	4.09		4.00	3.97		4.25	3.84	
Instructor encourages students comments even when they turn out to be incorrect or irrelevant	3.83	4.01		4.08	3.97		4.25	4.12	
Instructor summarizes material which aided retention	3.50	3.78		4.00	3.85		4.13	3.65	0.0063*

(table continues)

Characteristics	Assistant Professors		Prob <i>t</i>	Associate Professors		Prob <i>t</i>	Full Professors		Prob <i>t</i>
	Faculty (n=12)	Student (n=243)		Faculty (n=12)	Student (n=203)		Faculty (n=8)	Student (192)	
	<i>Means</i>	<i>Means</i>		<i>Means</i>	<i>Means</i>		<i>Means</i>	<i>Means</i>	
Instructor stimulates students to intellectual effort beyond that required by most courses	4.08	3.96		3.75	3.79		4.00	3.87	
Instructor clearly states objectives of the course	4.08	4.31		4.42	4.22		4.63	4.14	
Instructor explains course material clearly, and explanations are to the point	4.42	4.06		3.83	4.08		4.25	3.78	
Instructor relates course material to real life situations	4.08	4.47		4.42	4.33		4.88	4.20	0.0005*
Instructor has an interesting presentation of subject matter	4.00	3.94		3.50	3.91		3.88	3.63	
Instructor has thorough knowledge of subject matter	4.50	4.69		4.17	4.55		4.63	4.72	
Instructor is prepared and organized	4.33	4.47		4.42	4.44		4.75	4.41	
Instructor has clear objectives and requirements	4.33	4.33		4.50	4.26		4.75	4.31	
<u>Evaluation, Feedback and Reinforcement</u> ^a									
Instructor gives examinations questions which are unreasonably detailed	2.00	2.25		2.08	2.35		1.75	2.71	0.0334*
Instructor gives examinations which stress unnecessary memorization	1.75	2.07		1.67	2.06		1.38	2.69	0.0066*
Instructor realizes when students are bored or confused	4.08	3.51		4.00	3.51	0.0001*	4.00	3.17	0.0338*
Instructor returns examinations and assignments promptly	4.25	4.10		4.00	3.91		4.12	3.58	
Instructor regularly seeks feedback from students about the courses he/ she teaches	3.92	3.57		4.17	3.74		4.00	3.19	0.0478*
Instructor informs students of progress and performance	4.00	3.67		4.08	3.68		4.13	3.19	0.0142*
Instructors' marking and grading is clearly explained and fair	4.08	3.90		4.25	4.02		4.37	3.77	
Instructors examinations and assignments are worthwhile and reasonable in expectations	4.08	3.97		4.33	3.92		4.62	3.47	0.0002*

(table continues)

Characteristics	Assistant Professors		Prob <i>t</i>	Associate Professors		Prob <i>t</i>	Full Professors		Prob <i>t</i>
	Faculty	Student		Faculty	Student		Faculty	Student	
	(n=12) <i>Means</i>	(n=243) <i>Means</i>		(n=12) <i>Means</i>	(n=203) <i>Means</i>		(n=8) <i>Means</i>	(192) <i>Means</i>	
<u>Research/Scholarly Activities</u>									
Instructor relates his/her research/scholarly activities to the class ^b	4.00	4.04		4.33	3.88	0.0141*	4.75	4.05	0.0030*
Instructor is accomplished in research/scholarly activities ^b	4.67	4.37		4.75	4.25	0.0050*	4.62	4.58	
Instructor relates course content to existing research/scholarly findings and methods ^b	4.00	4.21		4.00	3.94		4.62	4.19	
Instructor knows current research/scholarly literature in his/her field ^b	4.42	4.49		4.50	4.29		4.37	4.51	
Instructor demonstrates a sincere interest in research/scholarly activities ^b	4.58	4.33		4.58	4.34		4.62	4.50	
Instructor gives assignments which require the student to use research journals ^b	3.50	2.97		3.75	3.22		2.87	2.97	
Extent instructor shares results of his/her research/scholarly activities with the class ^c	3.33	3.04		3.75	2.94	0.0038*	3.87	3.34	
Extent instructors' research/scholarly activities detracts from his/her teaching effectiveness ^c	2.25	1.67		1.83	1.83		1.37	1.95	
Extent instructors' teaching detracts from his/her research/scholarly activities ^c	2.92	1.97	0.0315*	3.08	2.05	0.0112*	2.25	2.19	
<u>Availability to Students Characteristics ^a</u>									
Instructor is available for academic course information	4.50	3.79	0.0007*	4.50	3.63	0.0009*	4.87	3.85	0.0001*
Instructor is available for discussion about career concerns	3.92	3.99		4.17	3.99		4.75	4.02	0.0271*
Instructor is available for personal problem consultation	3.50	3.50		3.83	3.73		4.25	3.71	
Instructor is available for discussion about intellectual information	4.00	3.91	4.17	3.87	4.75	4.09	0.0434*		

(table continues)

Characteristics	Assistant Professors			Associate Professors			Full Professors		
	Faculty (n=12)	Student (n=243)	Prob <i>t</i>	Faculty (n=12)	Student (n=203)	Prob <i>t</i>	Faculty (n=8)	Student (192)	Prob <i>t</i>
	<i>Means</i>	<i>Means</i>		<i>Means</i>	<i>Means</i>		<i>Means</i>	<i>Means</i>	
Instructor is available for discussion about campus issues	3.33	3.49		3.33	3.54		3.75	3.58	
Instructor is available for informal socializing outside of class	2.50	3.02		2.75	3.29		2.63	3.51	0.0334*
Instructor welcomes students seeking advice	4.33	4.23		4.17	4.08		4.75	4.25	
Instructor is accessible to students	4.25	4.31		4.33	4.19		4.75	4.40	
Students feel comfortable approaching instructor outside of class	4.25	4.28		3.83	4.14		4.00	4.21	
Instructors' office hours are communicated	4.67	4.48		4.75	4.35	0.0143*	4.62	4.46	
Instructors' office hours are maintained	4.67	4.37		4.25	4.19		4.50	4.35	
Instructor is available other times besides office hours	4.58	4.13	0.0139*	4.75	4.05	0.0241*	5.00	4.28	0.0001*

p ≤ 0.05

Note. ^a based on a 5-point response scale with 5=strongly agree, 3=neutral, 1=strongly disagree;

^b based on 6-point response scale with 5=strongly agree, 3=neutral, 1=strongly disagree, 0="don't know"; ^c based on 6-point response scale with 5=always, 3=sometimes, 1=never, 0= "don't know".

Table 17

Comparisons of Faculty and Students' Perceptions by Years Faculty Employed Regarding Teaching Effectiveness, Research/Scholarly Activities and Availability to Students.

Characteristics	4-7 Years		Prob <i>t</i>	8-14 Years		Prob <i>t</i>	Over 14 Years		Prob <i>t</i>
	Faculty (n=9)	Student (n=137)		Faculty (n=10)	Student (n=272)		Faculty (n=13)	Student (n=229)	
	<i>Mean</i>	<i>Mean</i>		<i>Mean</i>	<i>Mean</i>		<i>Mean</i>	<i>Mean</i>	
<u>Instructor Characteristics</u> ^a									
Instructor has enthusiasm for teaching	4.56	4.36		4.60	4.59		4.84	4.49	0.0057*
Instructor has tolerance of other people's views	4.22	4.05		4.30	4.36		4.53	4.20	
Instructor show personal interest in students	3.67	3.40		3.40	3.68		4.23	3.72	
Instructor demonstrates the ability to direct discussion	4.11	4.07		4.00	4.44		4.00	4.18	
Instructor has a sense of humor	4.44	4.25		4.30	4.41		4.46	4.17	
Instructor is dynamic and energetic	4.11	4.18		4.10	4.36		4.30	4.08	
Instructor is enthusiastic about his/her courses	4.67	4.27		4.60	4.60		4.61	4.48	
Instructor is sincerely interested in students	4.44	3.98		4.30	4.31		4.76	4.19	0.0004*
Instructor respects students as individuals	4.78	4.01	0.0005*	4.50	4.40		4.61	4.31	
Instructor has an interesting style of classroom presentation	3.33	3.71		3.90	3.88		3.69	3.68	
Instructor is personable	3.89	4.12		3.60	4.30		4.46	4.10	
Instructor maintains a friendly classroom atmosphere	4.33	4.13		4.30	4.53		4.46	4.28	
Instructor is conscientious about his/her instructional responsibilities*	4.67	4.09		5.00	4.47	0.0001*	4.53	4.24	
Instructor speaks with expressiveness and variety in tone of voice	3.89	4.05		4.00	4.10		4.38	4.08	
Instructor is fair to all students	4.70	3.94	0.0020*	4.40	4.29		4.62	4.19	0.0122*
Instructor is sensitive to class level and progress	4.56	3.94		4.40	4.21		4.23	3.96	
<u>Classroom Presentation</u> ^a									
Instructor knows how to teach	3.89	4.01		4.30	4.47		4.46	4.13	
Instructor knows what to teach	4.33	4.17		4.70	4.52		4.69	4.29	0.0128*
Instructor speaks clearly and can easily be heard	4.22	4.10		4.30	4.56		4.30	4.45	

(table continues)

Characteristics	4-7 Years		Prob <i>t</i>	8-14 Years		Prob <i>t</i>	Over 14 Years		Prob <i>t</i>
	Faculty (n=9)	Student (n=137)		Faculty (n=10)	Student (n=272)		Faculty (n=13)	Student (n=229)	
	<i>Mean</i>	<i>Mean</i>		<i>Mean</i>	<i>Mean</i>		<i>Mean</i>	<i>Mean</i>	
Instructor explains clearly and is easy to understand and follow	3.44	3.94		3.70	4.31	0.0363*	4.15	3.86	
Instructor presents other points of view	3.67	3.86		4.10	4.24		4.07	4.15	
Instructors' presentation and questions are thought provoking	4.00	3.92		4.10	4.20		4.07	4.01	
Instructor is careful and precise in answering questions	3.89	3.92		4.00	4.23		4.00	3.95	
Instructor utilizes concepts and facts from related fields	3.67	4.14		4.50	4.23		4.46	4.13	
Instructor compares and contrasts various theories	3.56	3.79		3.80	4.20	0.0169*	3.84	4.13	
Instructor uses a well balanced variety of instructional techniques, including such things as audio-visual aids, case studies, field trips, and resource personnel, as appropriate to the course	3.89	3.73		3.80	3.71		3.61	3.63	
Instructor summarizes major point frequently	3.78	3.76		3.90	4.06		4.15	4.00	
Instructor promotes teacher-student discussion	4.11	3.89		4.20	4.04		4.38	4.02	
Instructor finds ways to help students answer their own questions	3.89	3.70		3.30	4.01	0.0206*	4.00	3.79	
Instructor encourages students to express themselves freely and openly	4.44	3.94		4.10	4.19		4.46	4.12	0.0439*
Instructor is receptive to student questions	4.56	4.14		4.40	4.41		4.61	4.38	
Instructor explains new ideas by relating them to familiar concepts	4.11	4.02		4.30	4.21		4.23	3.98	
Instructor uses more than one approach as necessary	3.56	3.87		4.30	4.02		4.00	3.81	
Instructor demonstrates the importance and significance of the subject matter	4.33	4.06		4.60	4.37		4.53	4.16	
Instructor makes presentations which are dry and dull	2.22	2.28		2.00	2.23		2.00	2.57	
Instructor makes it clear how each topic fits into the course	3.78	3.88		4.00	4.11		4.07	3.87	
Instructor encourages students comments even when they turn out to be incorrect or irrelevant	3.89	3.91		4.10	4.05		4.07	4.05	
Instructor summarizes material which aided retention	3.44	3.72		4.10	3.84		3.92	3.69	

(table continues)

Characteristics	4-7 Years		Prob <i>t</i>	8-14 Years		Prob <i>t</i>	Over 14 Years		Prob <i>t</i>
	Faculty (n=9)	Student (n=137)		Faculty (n=10)	Student (n=272)		Faculty (n=13)	Student (n=229)	
	<i>Mean</i>	<i>Mean</i>		<i>Mean</i>	<i>Mean</i>		<i>Mean</i>	<i>Mean</i>	
Instructor stimulates students to intellectual effort beyond that required by most courses	4.00	3.82		4.10	3.92		3.76	3.86	
Instructor clearly states objectives of the course	4.22	4.05		4.20	4.36		4.53	4.17	
Instructor explains course material clearly, and explanations are to the point	4.11	3.89		4.50	4.13		3.92	3.85	
Instructor relates course material to real life situations	3.89	4.34		4.50	4.46		4.69	4.21	0.0040*
Instructor has an interesting presentation of subject matter	3.56	3.89		3.90	3.92		3.84	3.70	
Instructor has thorough knowledge of subject matter	4.33	4.39		4.40	4.73		4.46	4.71	
Instructor is prepared and organized	4.44	4.23		4.50	4.57		4.46	4.41	
Instructor has clear objectives and requirements	4.33	4.11		4.40	4.37		4.69	4.33	
<u>Evaluation, Feedback and Reinforcement</u> ^a									
Instructor gives examinations questions which are unreasonably detailed	1.89	2.54		2.30	2.20		1.77	2.59	0.0015*
Instructor gives examinations which stress unnecessary memorization	1.67	2.13		1.70	2.02		1.54	2.60	0.0001*
Instructor realizes when students are bored or confused	4.22	3.51	0.0454*	3.90	3.53	0.0075*	4.00	3.19	0.0001*
Instructor returns examinations and assignments promptly	4.33	3.76		4.30	4.17		3.84	3.62	
Instructor regularly seeks feedback from students about the courses he/ she teaches	4.00	3.56		4.20	3.69		3.92	3.27	0.0385*
Instructor informs students of progress and performance	4.00	3.82		4.30	3.61		3.92	3.26	0.0261*
Instructors' marking and grading is clearly explained and fair	4.00	3.76		4.30	4.05		4.30	3.81	
Instructors examinations and assignments are worthwhile and reasonable in expectations	4.33	3.80		4.20	4.00		4.38	3.55	0.0006*

(table continues)

Characteristics	4-7 Years			8-14 Years			Over 14 Years		
	Faculty (n=9)	Student (n=137)	Prob <i>t</i>	Faculty (n=10)	Student (n=272)	Prob <i>t</i>	Faculty (n=13)	Student (n=229)	Prob <i>t</i>
	Mean	Mean		Mean	Mean		Mean	Mean	
<u>Research/Scholarly Activities</u>									
Instructor relates his/her research/scholarly activities to the class ^b	4.44	3.68	0.0344*	4.00	4.10		4.46	4.06*	
Instructor is accomplished in research/scholarly activities ^b	5.00	4.09	0.0001*	4.50	4.42		4.61	4.55	
Instructor relates course content to existing research/scholarly findings and methods ^b	4.00	3.78		4.00	4.21		4.38	4.19	
Instructor knows current research/scholarly literature in his/her field ^b	4.78	4.10	0.0013*	4.10	4.53	0.0426*	4.46	4.50	
Instructor demonstrates a sincere interest in research/scholarly activities ^b	4.78	4.05	0.0007*	4.50	4.47		4.53	4.49	
Instructor gives assignments which require the student to use research journals ^b	3.89	3.22		3.10	3.02		3.38	3.14	
Extent instructor shares results of his/her research/scholarly activities with the class ^c	3.56	2.83	0.0427*	3.40	3.03		3.84	3.33	
Extent instructors' research/scholarly activities detracts from his/her teaching effectiveness ^c	1.89	1.92		2.30	1.68		1.53	1.89	
Extent instructors' teaching detracts from his/her research/scholarly activities ^c	2.78	2.23		2.90	1.90	0.0282*	2.76	2.16	
<u>Availability to Students Characteristics^a</u>									
Instructor is available for academic course information	4.67	3.73	0.0007*	4.30	3.74	0.0018*	4.77	3.81	0.0001*
Instructor is available for discussion about career concerns	4.11	3.79		3.80	4.07		4.62	4.04	0.0015*
Instructor is available for personal problem consultation	3.67	3.40		3.40	3.68		4.23	3.72	
Instructor is available for discussion about intellectual information	4.22	3.68	0.0066*	4.00	4.02		4.46	4.02	

(table continues)

Characteristics	4-7 Years		Prob <i>t</i>	8-14 Years		Prob <i>t</i>	Over 14 Years		Prob <i>t</i>
	Faculty (n=9)	Student (n=137)		Faculty (n=10)	Student (n=272)		Faculty (n=13)	Student (n=229)	
	<i>Mean</i>	<i>Mean</i>		<i>Mean</i>	<i>Mean</i>		<i>Mean</i>	<i>Mean</i>	
Instructor is available for discussion about campus issues	3.56	3.35		3.20	3.62		3.53	3.53	
Instructor is available for informal socializing outside of class	3.22	3.01		2.20	3.18	0.0096*	2.54	3.49	0.0037*
Instructor welcomes students seeking advice	4.44	3.93		4.00	4.28		4.61	4.23	0.0227*
Instructor is accessible to students	4.33	4.16		4.10	4.33		4.69	4.35	0.0317*
Students feel comfortable approaching instructor outside of class	3.89	4.04		4.10	4.29		4.07	4.22	
Instructors' office hours are communicated	4.67	4.29		4.80	4.52		4.61	4.41	
Instructors' office hours are maintained	4.67	4.21		4.40	4.35		4.38	4.29	
Instructor is available other times besides office hours	4.67	4.11	0.0107*	4.60	4.09		4.92	4.24	0.0001*

$p \leq 0.05$

Note. ^a based on a 5-point response scale with 5=strongly agree, 3=neutral, 1=strongly disagree;

^b based on 6-point response scale with 5=strongly agree, 3=neutral, 1=strongly disagree, 0="don't know"; ^c based on 6-point response scale with 5=always, 3=sometimes, 1=never, 0="don't know".

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: 11-06-95

IRB#: HE-96-018

Proposal Title: STUDENT AND FACULTY PERCEPTIONS OF UNIVERSITY
FACULTY'S TEACHING EFFECTIVENESS, RESEARCH ACTIVITY AND
AVAILABILITY

Principal Investigator(s): Donna Branson, Laurie McAlister-Apple

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

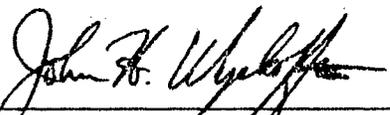
ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD
AT NEXT MEETING.

APPROVAL STATUS PERIOD VALID FOR ONE CALENDAR YEAR AFTER WHICH A
CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD
APPROVAL.

ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR
APPROVAL.

Comments, Modifications/Conditions for Approval or Reasons for Deferral or Disapproval
are as follows:

Signature:



Chair of Institutional Review Board

Date: November 15, 1995

VITA

Laurie Marie McAlister-Apple

Candidate for the Degree of

Doctor of Philosophy

Dissertation: STUDENT AND FACULTY PERCEPTIONS OF UNIVERSITY FACULTY'S
TEACHING EFFECTIVENESS, RESEARCH ACTIVITY AND AVAILABILITY

Major Field: Human Environmental Sciences

Biographical:

Personal Data: Born in Fort Smith, Arkansas, on October 15, 1963, the daughter of George and Martha McAlister. Married Anthony Curtis Apple, January 14, 1995.

Education: Graduated from Northside High School, Fort Smith, Arkansas in May 1982; received Bachelor of Science degree in Fashion Merchandising and a Master of Science in Fashion Merchandising from the University of Arkansas, Fayetteville, Arkansas in August 1987 and May 1991, respectively. Completed the requirements for the Doctor of Philosophy degree with a major in Human Environmental Sciences in December 1996.

Experience: Raised in Fort Smith, Arkansas; employed as a sales associate in the men's department for The Boston Store; employed as a clerk for Arkansas Best Corporation; employed as china/bridal sales associate for Dillard's Department Store; employed as a ticket clerk for Transit and Parking Department, University of Arkansas; employed as a merchandise coordinator for Neiman Marcus in Fort Worth, Texas; employed as a graduate research assistant in the Fashion Merchandising, University of Arkansas; employed as an instructor in Fashion Merchandising, University of Arkansas; employed as retail store buyer for Decatur Discount Center, Decatur, Arkansas; employed by Oklahoma State University, Department of Design, Housing and Merchandising as a graduate teaching/research associate; employed by Oklahoma State University, Associate Dean for Research and Graduate Studies Office as a graduate research associate.

Professional Membership: International Textiles and Apparel Association, Oklahoma Home Economics Association.