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**A comparison of the perceived teaching effectiveness of full-time
faculty, graduate teaching assistants, coaches, and part-time
faculty at selected universities in Tennessee**

Sutliff, Michael Andrew, D.A.

Middle Tennessee State University, 1992

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Ann Arbor, MI 48106**

**A Comparison of the Perceived Teaching Effectiveness of
Full-Time Faculty, Graduate Teaching Assistants,
Coaches, and Part-Time Faculty at Selected
Universities in Tennessee**

Michael Andrew Sutliff

**A dissertation presented to the
Graduate Faculty of Middle Tennessee State University
in partial fulfillment of the requirements
for the degree Doctor of Arts in the
Department of Physical Education**

August 1992

A Comparison of the Perceived Teaching Effectiveness of
Full-Time Faculty, Graduate Teaching Assistants,
Coaches, and Part-Time Faculty at Selected
Universities in Tennessee

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ABSTRACT

A Comparison of the Perceived Teaching Effectiveness of Full-Time Faculty, Graduate Teaching Assistants, Coaches, and Part-Time Faculty at Selected Universities in Tennessee

Michael Andrew Sutliff

The purpose of this study was to compare the perceived teaching effectiveness of full-time faculty, part-time (adjunct) faculty, coaches, and graduate teaching assistants teaching physical education activities classes in five state universities in Tennessee. Students ($N = 2,457$) responded to 48 items on the Instructional Development and Effectiveness Assessment (IDEA) Survey developed by Kansas State University. The testing instrument was divided into seven teaching variables: instructor involvement with students, instructor communication with students, instructor enthusiasm with class and students, instructor evaluation methods, student subject mastery, student attitudes concerning physical education activity classes as a result of taking the course, and student rating of the course. Analysis of variance revealed statistical significance ($p < .05$) between one or more of the faculty groups in six of the seven teaching variables. Other variables indicating statistical significance differences between the four

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faculty groups were differences between students' ratings and instructors' gender; activity type (aerobic/anaerobic, team games); ages of instructors; time of activity; nature of the activity; class sizes; students' academic rank; students' expected grade; and students' chronological age across the four faculty groups.

Results of this study indicate that part-time faculty are consistently rated the highest across the four faculty groups. Total mean scores illustrate that female students more than male students rank male and female instructors higher. Dance/Rhythm activities are consistently rated higher than individual/dual sports and team games. The time of class appeared to influence student ratings of instructors. Activities conducted after 12:00 p.m. consistently received higher evaluation scores than classes conducted before 12:00 p.m. Data from this study also indicate that class size was a factor in student evaluations. Students attending classes with more than 15 students tend to rate instructors higher than those classes attended by 15 students or less. The academic rank and chronological age of students had no influence on evaluation scores, but students' expected grade illustrated consistent disparities in instructor evaluations. Students expecting a letter grade of an A consistently rated instructors higher compared to those expecting a letter grade of C.

CHAPTER 1

Introduction

Determining teacher effectiveness of college instructors has challenged administrators for many years. Heilman and Armentrout (1936), at the Colorado State College Education Department, used the Purdue Rating Scale to evaluate instructor performance. Clark and Keller (1954) and Gage (1961) generated interest in higher education by studying the efficacy of various faculty groups. Research comparing groups by academic rank increased in the 1970's. Studies by Rodin and Rodin (1972) and Nevill, Ware, and Smith (1978) encouraged research involving teaching assistants and faculty.

In recent years, many institutions have gauged teacher effectiveness by student evaluations. This approach is validated by McKeachie and Lin (1979), Marsh (1984), and Cranton and Smith (1986). Van Allen (1982) stated that if student evaluations are properly administered, they provide reliable and valid information concerning teaching effectiveness. Supporting Van Allen, Cashin (1988) determined that "student ratings tend to be statistically reliable, valid, and relatively free from bias, probably more so than any other data used for faculty evaluation" (p. 4).

Student evaluations are used by administrators to determine promotion, tenure, and salary increases of faculty (Hamilton, 1980; Marlin, 1987; Tieman & Rankin-Ullock, 1985; Tom, Swanson, Abbott, & Cajocum, 1990). Several methods of defining teacher effectiveness exist.

Hildebrand, Wilson, and Dienst (1971) identified a model using a system of basic scales. This system measures: (1) the instructor's analytic and synthetic approach, (2) organization and clarity during instruction, (3) skill of instructor-student interaction, (4) individual student-teacher interaction, and (5) instructor dynamism and enthusiasm.

Dukes and Victoria (1989) performed a meta-analysis to define teaching effectiveness. They concluded that effective teaching is composed of four attributes: (1) knowledge of what is being taught, (2) enthusiasm for teaching, (3) rapport between teacher and student, and (4) organization of the learning situation.

Ebel and Berg (1976) studied student evaluation as related to physical education. Their list of teacher competency criteria included six items for defining effective teaching. They included: (1) extent of the instructor's mastery of subject material, (2) instructor's ability to explain the subject, (3) the magnitude to which students are encouraged to think, (4) fairness in evaluation methods, (5) instructor's evidence or demonstration of

concern, and (6) intangible qualities of the instructor's total teaching performance.

Cashin (1989) suggests that college teaching involves seven distinct areas, which include: (1) subject matter mastery, (2) curriculum development, (3) course design, (4) delivery of instruction, (5) assessment of instruction, (6) availability to students, and (7) administrative requirements.

Recently, Silverman (1991) developed a comprehensive list of instructional characteristics effective or experienced teachers of motor skills possess: (1) planning for class management and student learning, (2) anticipating situations and making contingency plans, (3) awareness of student skill differences and using the information in planning and monitoring, (4) requiring much information to plan, (5) having a repertoire of teaching styles and knowing when to use them, (6) providing accurate and focused explanations and demonstrations, (7) providing adequate time for student practice, (8) maximizing appropriate student practice or engagement, (9) minimizing inappropriate student practice or engagement, and (10) minimizing student waiting.

Shields (1984) cites four factors that validate using student evaluation of teachers to determine teacher competency: (1) define effective teaching, (2) select or construct a "good" rating instrument that focuses on the dimensions relevant to effective teaching, (3) standardize

all conditions which solicitize the student ratings, and
(4) develop norms that can statistically control existing variables.

This investigator proposes the use of the Instructional Development and Effectiveness Assessment (IDEA) Survey developed by Kansas State University. The basis of this instrument selection is the instrument's adaptability to many academic fields. The instrument was developed from 44 academic fields using data from 87,843 classes from 316 colleges and universities from fall 1975 through spring 1984. The IDEA system adjusts for both student motivation and class size. This instrument does not penalize instructors who teach courses to students who do not want to take their course. The academic field is a third variable which is controlled by the IDEA survey. The IDEA instrument has an average item reliability of .70 for 10 raters, .81 for 20 raters, and .89 for 40 raters (Cashin 1988, 1990).

The IDEA survey is divided into five sections. In section 1, the students rate the frequency of teacher behaviors or methods (items 1-20). In section 2, students' progress is rated on each of the instructional goals (items 21-30). In section 3, the students rate some specific course characteristics (items 31-34). In section 4, students rate their own qualities (items 35-39). In section 5, research-related questions are listed (items A-G).

Statement of the Problem

The investigator, utilizing student ratings of instructors, proposes to evaluate the teaching effectiveness of full-time faculty, graduate teaching assistants, coaches, and part-time (adjunct) faculty teaching college physical education activity classes at selected universities in Tennessee.

Significance of the Study

Current research comparing the teaching effectiveness between all faculty groups instructing in physical education appears to be inadequate. The literature reveals a paucity of studies measuring the effectiveness or instructional methods of graduate teaching assistants. Moreover, a library search failed to identify any investigations which determined the teaching effectiveness of coaches.

The study seems justified by the benefits it might provide. It is hoped that administrators will be aided in the evaluation practices of teachers in physical education activity classes. This research should also assist administrators in determining rank, promotion, or salary advancement for all faculty groups teaching physical education activity (service) classes. Increased administrative monitoring of instructional activities for all faculty groups teaching activity classes might increase as a result of this study. Students, faculty, departments, and institutions should also benefit from this practice.

The study could also help physical education administrators restructure faculty teaching assignments and levels and aid instructors in perfecting and improving personal instructional methods, practices, and techniques. Decisions about hiring part-time and full-time faculty could be supported or challenged by this study. Questions concerning the proper placement of part-time specialists versus full-time faculty may be aided by this study. The training of part-time faculty and graduate teaching assistants in instructional methodology and practices may be indicated as well.

Limitations of the Study

Certain variables that affect this study include motivation levels of the students, halo errors existing between faculty member and student, and past experiences with the same instructor.

Delimitations of the Study

The selection of subjects is limited to a select number of Board of Regents schools and a lone member institution of the Tennessee Board of Trustees in the state of Tennessee. Teaching effectiveness will be determined by the Instructional Development and Effectiveness Assessment (IDEA) Survey developed by Kansas State University. Evaluations occurred during the spring of 1992.

Assumptions of the Study

It is assumed that the instrument utilized for this study has acceptable validity and reliability coefficients and that student responses were honest in all items of the questionnaire.

Definition of Terms

Full-time faculty--are defined as those who teach full-time at one institution.

Graduate teaching assistants--are defined as those classified as teaching assistants or those working toward a graduate degree at the same institution where they are teaching.

Coaches--are defined as individuals who teach and coach at the same institution.

Part-time (adjunct) faculty--are defined as those who are classified as part-time at an institution with duties limited specifically to teaching courses that total less than full teaching levels.

Teaching effectiveness--is defined as the product or outcome of one who has subject mastery, leads students to subject mastery, possesses ability to instruct and explain, encourages students to think, is fair in evaluation, and demonstrates student concern.

Ratee--is defined as one who is being rated or evaluated.

Rater--is defined as one who rates or evaluates the performance of another.

Hypotheses

Hypotheses for this study are:

Hypothesis 1: There will be no significant differences between full-time faculty, graduate teaching assistants, coaches, and part-time (adjunct) faculty as determined by student evaluations.

Hypothesis 2: There will be no significant differences between ratings by male and female students given to male instructors across the four faculty groups.

Hypothesis 3: There will be no significant differences in ratings by male and female students given to female instructors across the four faculty groups.

Hypothesis 4: There will be no significant differences between ratings by students of instructors teaching individual/dual activities, team games activities, and dance/rhythms activities across the four faculty groups.

Hypothesis 5: There will be no significant differences between ratings by students of the faculty teaching in one of the four faculty groups who are 40 years of age or under and those instructors who are over 40 years of age.

Hypothesis 6: There will be no significant differences between ratings by students of the faculty teaching in one of the four faculty groups teaching classes that meet before 12:00 p.m. and 12:00 p.m. or later.

Hypothesis 7: There will be no significant differences between ratings by students of the faculty teaching in one of the four faculty groups teaching aerobic and anaerobic classes.

Hypothesis 8: There will be no significant differences between ratings by students between faculty teaching in one of the four faculty groups teaching classes with 15 students or less and those teaching classes with more than 15 students.

Hypothesis 9: There will be no significant differences between ratings by students of the faculty teaching in one of the four faculty groups by students classified as freshmen, sophomores, juniors, or seniors.

Hypothesis 10: There will be no significant differences between the expected grade of the rater and the overall rating of the ratee concerning faculty teaching in one of the four faculty groups.

Hypothesis 11: There will be no significant differences between ratings by students as a result of their ages when evaluating faculty teaching in one of the four faculty groups.

CHAPTER 2

Review of Related Literature

Administrators in colleges and universities have investigated ways to measure teacher effectiveness for years (Crawford & Bradshaw, 1968). Ascertaining teaching performance aids administrators on decisions of promotion, tenure, and salary advancement (Palmer, Carliner, & Romer, 1978; Shields, 1984; Tang & Tang, 1987). Student evaluations of teachers are used by institutions of higher education for determining teacher efficacy (Abrami, 1989; Cranton & Smith, 1986). Several articles related to specific variables listed in the study were discovered. To heighten clarity, this review has been divided into the following 11 sections: (1) support of student evaluations, (2) opposing studies, (3) halo effect, (4) effects of instructor and student gender, (5) effects of class size, (6) lasting student impressions of instructor, (7) course level, (8) student knowledge of evaluation purposes, (9) student grade anticipation, (10) instructor rank, and (11) support for study.

Literature Related to Support Student Evaluation of Teachers

Researchers disagree on the validity and reliability of using student evaluations for measuring teacher effectiveness. McKeachie, Lin, and Mann (1971) studied the

use of student evaluations in determining teacher effectiveness. Their study included 348 men and 406 women students enrolled in 32 sections of a general psychology course taught by 16 different instructors. The Introductory Psychology Criteria Test, measuring higher levels of cognitive objectives, was the testing instrument; and the results supported using student evaluations for determining teacher effectiveness.

Cohen (1981) conducted a meta-analysis from 41 independent studies reporting on 68 separate multi-section courses relating student evaluations to student achievement. He observed that the average correlation between an overall instructor rating and student achievement was .43 and the average correlation between an overall course rating and student achievement was .47. He concluded that these findings supported the use of student evaluation of teachers for the purpose of determining instructional effectiveness.

Arreola (1983) attempted to examine the validity of student ratings of teacher effectiveness by administering the Student Instructional Rating System (SIRS) to 252 students enrolled in two sections of an introductory biology course. Student achievement was assessed through four periodic tests and a final comprehensive examination. The final course grade was the primary measure used to determine the level of student achievement. Significant correlations were discovered between the perceived amount learned and

student ratings of student interest, course demands, and course organization for both instructors ($p < .05$). Significant correlations were also found between course grade and student ratings of student interest, course demands, and course organization of both instructors ($p < .05$). He concluded from the findings that a significant relationship exists between student achievement (as measured by course grade) and student ratings of various dimensions of faculty performance.

Cranton and Smith (1986) studied the effect of course characteristics on student evaluation of teachers. The sample was collected over six semesters in 1,777 classes in five departments. First-year through graduate-level classes were included, as well as full-time and part-time faculty. The data yielded approximately 55,000 evaluation forms. They concluded that using student evaluations for comparing faculty groups was possible in a single subject area. If data were collected over time, they concluded student evaluations could be used for determining promotion and tenure of faculty.

Dukes and Victoria (1989) studied how gender, status, and effective teaching influenced student evaluation of teachers. The subjects included 144 male and female undergraduates in four sociology and two political science classes. The instrument, which manipulated each testing variable, was designed by the researchers. Subjects

responded to specific teaching scenarios controlled in an experimental design. Effective teaching was found to have the strongest effect on teacher evaluations. These studies therefore support using student evaluation of teachers for determining and measuring teacher competency. Instrument construction is vital for a valid study in determining teaching performance by student evaluation of teachers (Shields, 1984).

Literature Related to Opposing Studies Discouraging
the Use of Student Evaluations

Other research questions the validity of student evaluations to determine teacher effectiveness. Royce (1956) investigated the effects of student evaluation of teachers with teacher personality characteristics, discovering that high student ratings resulted from "superficial popularity" and not student learning.

Rodin and Rodin (1972) compared student evaluation of teachers with acknowledged quality teachers, finding teachers who provide quality instruction are not rated highly. They concluded student ratings are, thus, subjective in evaluating teaching performance. Cooper, Stewart, and Gudykunst (1982) studied influencing variables of student evaluation of teachers. Data were collected from 557 students enrolled in a basic speech communication course. The research instrument included: (1) a modified version of Hochel's Index of Self-Concept as a Communicator,

(2) a modified version of the Barrett-Lennard Relationship Inventory, (3) a modified version of Herman's Questionnaire Measure of Achievement Motivation, and (4) the Purdue Instructor and Course Evaluation Form. The results indicated that student-teacher relationships were the predictor for student evaluation of teachers. They concluded, "much more goes into a good instructor evaluation than simply good teaching" (p. 314).

Literature Related to the Halo Effect

Abrami (1989) suggested that teacher characteristics vary with other variables related to teaching. He contends students cannot discern between teaching variables and personality variables. This lack of discernment is referred to as the halo effect. Borman (1975) defined the halo effect as a tendency to attend to a global impression of each ratee, rather than to carefully distinguish among levels of different performance dimensions. Moritsch and Suter (1987) defined the halo effect as the inability on the part of raters to differentiate between their general impression of the ratee and the ratee's actual performance on specific and conceptually distinguishable dimensions.

Recent studies on the halo effect provide several findings. Moritsch and Suter (1987) examined the relationship between the magnitude of halo error demonstrated by student evaluation of teachers and a variety of rater, ratee, and course characteristics. Their study

included 300 psychology students from 19 psychology classes who rated instructors the last two weeks of class. The 19-item evaluation form incorporated items pertaining to specific teaching attributes, including: (1) preparation for class, (2) stimulation of interest, (3) clear expression, (4) level of challenge, and (5) command of subjects. The remaining test items assessed the instructor's overall effectiveness. The criterion variable (student's halo error) was operationalized with each rater's variance across all 19 items. The researchers applied the intro-rater item variance which yielded a continuous measure of halo error. The results indicated students who had previous courses with the same instructor revealed more halo error than students exposed to a teacher for the first time. Students who took the course as a requirement measured less halo error than those taking it as an elective. Their study demonstrated rater interest and motivational levels were significantly related to the students' susceptibility to halo errors.

Tang and Tang (1987) determined that student evaluation of teachers is related to students liking the instructor as a person and as a teacher, as well as their attitude toward the subject at the time of evaluation. Significantly correlated items in their study revealed that student evaluations are also affected by teacher fairness, ability to explain, willingness to talk with students, clarity of

course knowledge and grading criteria, and knowledge obtained in class.

More recently, Shepherd and Trank (1989) discovered similar results. Their study included 431 students enrolled in 28 sections of rhetoric at a large, midwestern university. The students responded to a Student Perceptions of Teacher Effectiveness Questionnaire. Results demonstrated high student evaluations occurred when the instructor was perceived as open, friendly, approachable, and relaxed.

Literature Related to Instructor and Student Gender

Studies measuring the effects of professors' gender with students' gender on student evaluations are unequivocal. Basow and Howe (1987) used 385 male and 310 female subjects to evaluate 24 male and 17 female instructors to determine if a relationship existed between the various sex types. The students responded to six questions answered on 1-10 Likert scales, with 10 being highly positive. The results of the study supported predictions that professors' sex-type would affect the evaluation of college professors, but the magnitude of the differences was recorded as small. The authors stated that:

the research suggested that although male and female professors sometimes are seen as possessing different and stereotyped qualities, when the professors are explicitly described as possessing similar qualities, the effect of the professors' sex does not appear. (Basow & Howe, 1987, p. 676).

In another study performed by Basow and Silberg (1987), it was determined that female professors are rated lower than their male counterparts by male and female students. According to the authors, "the fact that college teaching is considered a male occupation may help explain why male students rate female professors lower than they rate male professors" (Basow & Silberg, 1987, p. 313). The authors also noted that "the less favorable ratings of women are most likely to occur when women are seen as not fitting gender stereotypes" (p. 308).

A more recent study determined that gender bias does exist, but "effective teaching had by far the most important influence on teaching evaluations" (Dukes & Victoria, 1989, p. 447). Their sample came from 144 undergraduate students in six political science and sociology classes responding to four scenarios depicting knowledge of the subject, enthusiasm for teaching, rapport with students, and organization of the course. Within each scenario the variables of quality of teaching, gender of the professor, and status of the professor were manipulated in an experimental design.

Literature Related to Class Size

Several studies have been conducted to discover the effect of class size on student evaluations. Feldman (1978) uncovered nearly 30 studies that measured a relationship between class size and class ratings of instructors. He

concluded from the meta-analysis that one-third of the studies had essentially no relationship between the two variables. The other two-thirds indicated a negative relationship--the smaller the size of the class, the higher the ratings.

Hamilton (1980) analyzed data from 118 university social science classes. He determined full-time faculty can alter their teaching methods to make class size independent of teacher ratings. He further concluded that less experienced teachers have difficulty making such adjustments, placing them at a disadvantage in the large-class environment.

Marsh (1980) also conducted a study that compared class size to evaluation ratings of college instructors. He concluded that class size had a non-linear relationship with student evaluation of teachers. His data were acquired from 511 undergraduate courses taught by 221 different instructors. Students responded to 11 instructor evaluation questions and 16 background characteristics (e.g., class size, expected grade, reason for taking the course, etc.). In a more current study by Feldman (1984), he suggested that class size explains only 1% to 2% of the variation in evaluations. Cranton and Smith (1986) concluded that a significant, overall multivariate difference existed between the categories of class size. They discovered differences

in class sizes were found on ratings of amount learned, significance of learning, and overall value of the course.

In a recent study, Shapiro (1990) sampled 399 graduate-level courses taught by 263 instructors. He concluded that evaluations were significantly higher in smaller size classes, in non-qualitative classes, and in classes that met with more intensive time schedules. His study also determined that neither the gender, the level of education, nor the rank had a significant effect on class evaluations. It was also determined that both non-traditional and traditional students react similarly to students' evaluations.

Literature Related to Lasting Student Impressions of Instructor

Kohlan (1973) investigated if student impressions of instructors were maintained throughout an entire course. His study included 271 male and female undergraduate students in the Arts and Science, Business Administration, and Education Colleges at the University of Nebraska at Omaha. The testing instrument was a 44-item Instructor Evaluation Questionnaire (IEQ) developed by the faculty at the University of Nebraska at Omaha in 1971. The results indicated no significant differences occurred between early and late IEQ scores, supporting the primary hypothesis that student impressions of instructors are sustained throughout the entire semester.

Literature Related to Course Levels

Researchers have also studied the effect of the course level on student evaluations. In Feldman's (1978) study, he found that course level did affect student evaluations. Cohen (1981) discovered similar results, determining that higher course levels receive higher student evaluation ratings. Moreover, these results were consistent with other studies performed by Gage (1961) and Marsh (1980).

Divoky and Rothermel (1988) studied 60 undergraduate business students to determine the effects of major and non-major course characteristics. They concluded: (1) a relative preference in teacher delivery was higher in the non-major required course, (2) depth of knowledge was higher in the major elective course, and (3) interpersonal skill was rated higher in major required courses than major elective courses. The study, thus, confirms that differences exist in major and non-major course characteristics in relation to student evaluation of teachers.

Literature Related to Student Knowledge of Evaluation Purposes

Other studies have attempted to measure the effects of students' prior knowledge concerning administrative purposes for teacher evaluations. Some research suggests that prior knowledge affects student evaluation of teachers, with one study dissenting.

Marsh (1984) determined that students having knowledge of administrators using student evaluations for promotion and tenure of faculty increase rating scores. In contrast, Gmelch and Glasman (1977) discovered that students' prior knowledge of administrators' use of evaluation scores for tenure and promotion does not significantly affect the rating of the instructor.

Recently, Tom et al. (1990) investigated the influence of "instructor historic or baseline performance on the evaluation instrument and the relationship between prior knowledge of intended purpose and evaluation scores" (p. 270). The results of the study suggested that prior knowledge for the purpose of the evaluations by administrators does not affect student evaluation of teachers.

Literature Related to Student Grade Anticipation

Student grade anticipation for a course was another variable studied by researchers. Researchers disagree, however, on the extent that grade anticipation influences student evaluations. In the study performed by Hamilton (1980), he concluded that, for experienced and inexperienced teachers, grade anticipation is a predictor for student evaluation of teachers. Similar results were acquired by Ditts (1980). He studied the effects of grade anticipation by using the Illinois Evaluation Form. He determined that student evaluation of teachers is directly associated with

grade expectation. He concluded that grade expectations could be biased upward by instructors wanting high evaluations.

Refuting Ditts' (1980) study, Blackwell (1983) points out three problems with Ditts' study on grade anticipation. First, he did not correctly apply the analysis of covariance (ANOCOVA) to his study. Second, scaling problems existed with the student evaluation of teachers' measurement. Third, ANOCOVA does not provide useful feedback for the evaluation of professors, even if properly done. Blackwell inferred that Ditts' study was therefore unreliable. In contrast, DeCanio (1986) observed no relationship between expected grades and student evaluations when using the multinomial logit model. Data were collected from 11,119 student evaluations in several economics courses.

Recently, Marlin and Gaynor (1989) studied the effects of grade anticipation on students in college business classes. They determined that student assessment was based primarily on faculty teaching behaviors, rather than anticipated or expected grades; however, some correlation was evident. The study determined if students received an expected grade lower than they felt was deserved, they rated the instructor lower. If students received an expected high grade or felt grading was fair, the instructor then received a high evaluation. Research correlating student evaluations with grades reviewed was also investigated. McKeachie and

Lin (1979) studied this association, but found no relationship between grades received and teacher evaluation ratings.

Osunde (1986) also determined that student evaluations were independent of grades obtained. His study involved 59 undergraduate students enrolled in an undergraduate education class in Nigeria.

Literature Related to Instructor Rank

Studies comparing part-time and full-time instructors differ. Cruise, Frust, and Klimes (1980) discovered that full-time instructors were rated higher on 16 of 23 evaluation questions administered to students. But Cranton and Smith (1986) discovered no overall significant multivariate differences existed between full-time and part-time faculty.

Additional researchers comparing full- and part-time faculty (Black, 1981; Boyar & MacKenzie, 1983; Cohen & Brawer, 1991) concluded that part-time faculty possess fewer advanced degrees, fewer years of teaching experience, and fewer years in current institution and are less likely to have membership in professional organizations. Pedras (1985) determined that training of part-time faculty in the areas of instruction is a top priority, suggesting a weakness in part-time teaching methodology.

Studies that compared graduate teaching assistants with faculty also differ. The research that found similar

student evaluation scores between the two groups (Aleamoni & Graham, 1974; Choy, 1969; Feldman, 1983; Nevill et al., 1978) is not recent. Studies measuring a difference between faculty scores and graduate teaching assistants (Blount, Stallings, & Gupta, 1978; Gage, 1961; Sullivan & Skanes, 1974) are a reflection of Costin's (1968) comment on the presumed poor quality of teaching by graduate teaching assistants. Sullivan and Skanes (1974) determined that full-time instructors are extremely committed to teaching and accepting major responsibility for the outcome of their instruction, with a high level of student achievement as a primary goal. In contrast, part-time teaching assistants are not as committed to teaching and are not allowed the autonomy in planning the instructional process or carrying out specific instructional responsibilities. Furthermore, their interests involve alternative goals besides student achievement.

Support for the Study

The review of the literature demonstrates a need for current studies that compare teaching effectiveness between specific faculty groups on the college level. The literature does not offer any studies comparing teaching groups in physical education activity classes. No studies could be found that compare coaches with other faculty or evaluate them as college teachers.

CHAPTER 3

Methods and Procedures

Elemental methods and procedures used in this investigation are explained in this chapter. Components include: an explanation of the methods used for data collection, a description of the test instrument, a description of the subjects, and the procedure for statistical analyses of data.

Methods

This investigation began in the fall of 1991 with the initial mailing of 25 letters (see Appendix A) to selected organizations and institutions (see Appendix B) requesting information and sample instruments about student evaluation of teachers. After viewing 12 different student evaluation-of-teacher forms, the Instructional Development and Effectiveness Assessment (IDEA) Survey from Kansas State University (see Appendix C) was selected as the testing instrument. Permission to use the form for this study was granted by the Center for Faculty Evaluation and Development at Kansas State University, February 14, 1992 (see Appendix D).

Eight universities in Tennessee were contacted by letter requesting participation in the study (see Appendix E). The five consenting universities included: (1) Austin Peay State University, (2) East Tennessee State

University, (3) Middle Tennessee State University, (4) University of Tennessee at Chattanooga, and (5) Tennessee Technological University. Contact was made by phone to each institution to identify the following:

(1) all physical education activity classes offered at their institutions in the spring semester of 1992, (2) faculty category (full-time faculty, graduate teaching assistants, coaches, and part-time [adjunct] faculty) of instructors for each class, and (3) number of students enrolled in each class.

Each institution (see Table 1.1) and class was given a code necessary for the data calculations. Evaluation packets for randomly selected activity classes were mailed with pencils to a facilitator for each participating institution. Each packet contained a sufficient number of

Table 1.1

Frequency Responses for Participating Institutions

Institution	Number of activities	<u>N</u>	%
1	5	225	9.2
2	32	1,051	42.8
3	18	738	30.0
4	10	263	10.7
5	7	180	7.3

survey forms (question sheets) and answer sheets for each student (see Appendix C). After completion of evaluations, facilitators mailed the packets back to the investigator for data analyses.

Description of Test Instrument

The instrument chosen for the study was the Instructional Development and Effectiveness Assessment (IDEA) Survey developed by Kansas State University. Permission for using testing items was granted February 14, 1992 (see Appendix D). IDEA has a national comparative data base of 87,843 classes from 316 colleges and universities.

The testing instrument is divided into six rating parts (see Appendix C). Part 1 contains 11 research questions specifically designed and developed by the investigator. The function of each question is to provide meaningful demographic data necessary to make inferences towards each hypothesis listed in the study. Parts two through six were developed by Kansas State University. Part 2 contains the students' self-reports of progress on 10 instructional goals. The goals are grouped into three categories: (1) subject matter mastery, (2) development of general skills, and (3) personal development. Overall evaluation is a weighted average of student progress on those goals selected by the instructor as relevant to the course. Part 3 summarizes the students' responses to 24 items describing the course. Part 4 summarizes the students' ratings of

their own motivation and effort in the course. It also summarizes some general responses to the course and the instructor. Part 5 summarizes the students' ratings of the frequencies of various teacher behaviors. The final section, part 6, summarizes six general student reactions toward the course and its instructor.

Subjects

The subjects for this study included four faculty groups who were rated by 2,457 students enrolled in collegiate activity courses at four State Board of Regents institutions (Austin Peay State University, Clarksville; Middle Tennessee State University, Murfreesboro; Tennessee Technological University, Cookeville); East Tennessee State University, Johnson City; and one member institution of the Tennessee Board of Trustees, University of Tennessee at Chattanooga (see Appendix E). Table 1.1 shows the number of subjects participating at each institution.

Analyses of Data

The method for scoring was based on the instructions contained in the validated Instructional Development and Effectiveness Assessment Survey. The respondents filled in one of five possible options for each question on the evaluation instrument. Response choices for section 2 of the instrument included:

1. a--hardly ever,
2. b--occasionally,

3. c--sometimes,
4. d--frequently,
5. e--almost always.

Response choices for section 3 included:

1. a--low (lowest 10% of courses I have taken here),
2. b--low-average (next 20% of courses),
3. c--average (middle 40% of courses),
4. d--high-average (next 20% of courses),
5. e--high (highest 10% of courses).

Response choices for section 4 included:

1. a--much less than most courses,
2. b--less than most,
3. c--about average,
4. d--more than most,
5. e--much more than most.

Response choices for sections 5 and 6 included:

1. a--definitely false,
2. b--more false than true,
3. c--in between,
4. d--more true than false,
5. e--definitely true.

Numerical values of 1 to 5 were assigned to each section, with 5 being most favorable except for questions 16, 19, 21, and 26 where low scores were most desirable.

The testing instrument was divided into six categories. Each category represented a different testing variable and

was statistically compared within and between each faculty group (see Table 1.2).

Table 1.2
Teaching Variables Categorized by Item Loadings

Variable	Item loadings
Instructor involvement with students	12 - 13 - 15 - 22
Instructor communication with students	18 - 20 - 23 - 24 - 25
Instructor enthusiasm with class and students	14 - 17 - 19 - 27
Instructor evaluation methods	16 - 21 - 26
Student subject mastery	28 - 30 - 32
Student attitudes concerning physical education activity classes	42
Student rating of the course	46 - 47 - 48

Comparisons between each faculty group and a total combined score generated from the student responses were statistically treated by using the analysis of variance (ANOVA). The t -tests were computed following significant F -ratio scores to determine which groups differed significantly. The .05 level of confidence was used to determine statistical significance. The investigator used Middle Tennessee State University's Computer Center's SPSSX

program (license number 11243) for all statistical analyses. Comparisons across groups also included ratings by students of instructors' and students' genders, time of classes, ages of instructors, ages of students, aerobic and anaerobic activities (as determined by instructors), class sizes, students' classifications, and grades expected by students. Analysis of variance was also used to compare the six instructor trait and characteristic categories of the instrument across the four faculty groups.

CHAPTER 4

Data Analysis

Purposes of this study were to compare, using student evaluations, the perceived teaching effectiveness between full-time faculty (FF), graduate teaching assistants (GTA's), coaches (C), and part-time (adjunct) faculty (PT), teaching physical education activity (service) classes at selected universities in Tennessee. To determine instructional effectiveness, students responded to the Instructional Development and Effectiveness Assessment Survey instrument developed by Kansas State University. Data were collected from five universities in Tennessee ($N = 2,457$). Analysis of variance was used to determine statistically significant differences between the variables tested. If significance was found at the .05 level of confidence, follow-up t -tests were used to determine between which groups significance occurred.

Data analyses are presented in 11 parts:

1. How all student participants rated the four faculty groups on the seven teaching variables,
2. How male students rated male and female instructors across the four faculty groups on the seven teaching variables,

3. How female students rated male and female instructors across the four faculty groups on the seven teaching variables,
4. How all students rated instructors across the four faculty groups as related to the type of activity,
5. How all students rated instructors across the four faculty groups as related to the instructors' ages,
6. How all students rated instructors across the four faculty groups as related to time of activity,
7. How all students rated instructors across the four faculty groups as related to the nature of the activity,
8. How all students rated instructors across the four faculty groups as related to size of class,
9. How all students rated instructors across the four faculty groups as related to student rank,
10. How all students rated instructors across the four faculty groups as related to student expected grade,
11. How all students rated instructors across the four faculty groups as related to the age of the student.

Part 1--Students' Ratings Across Faculty
Groups on Seven Teaching Variables

Table 2.1, Analysis of Variance for the Four Faculty Groups by Teaching Variable, revealed an F score of 20.327 for instructor involvement with students, $p < .001$; an F score of 21.767 for instructor communication with students, $p < .001$; an F score of 15.723 for instructor enthusiasm with class and students, $p < .001$; an F score of .934 for

Table 2.1
Analysis of Variance for the Four Faculty Groups by Teaching Variable

Teaching variable	Sum of Squares	DF	Mean Square	F	Prob.
Instructor involvement with students	962.062	3	320.687	20.327***	.000
Instructor communication with students	1,080.595	3	360.198	21.767***	.000
Instructor enthusiasm with class and students	468.986	3	156.329	15.723***	.000
Instructor evaluation methods	20.345	3	6.782	.934	.423
Student subject mastery	305.495	3	101.831	13.952***	.000
Student attitudes concerning physical education activity classes	71.147	3	23.716	19.378***	.000
Student rating of the course	455.444	3	151.815	20.457***	.000

*p < .05. **p < .01. ***p < .001.

instructor evaluation methods; an F score of 13.952 for student subject mastery, $p < .001$; an F score of 19.378 for student attitudes concerning physical education activity classes, $p < .001$; and an F score of 20.457 for student rating of the course, $p < .001$.

Significant variables include:

1. The teaching variable, instructor involvement with students, showed significance between full-time faculty ($M = 3.88$, $SD = .97$) and coaches ($M = 3.55$, $SD = 1.05$), with a t value of 6.06 ($p < .001$); graduate teaching assistants (teaching assistants) (GTA's/TA's) ($M = 3.81$, $SD = .97$) and coaches, with a t value of 5.75 ($p < .001$); and coaches and part-time faculty ($M = 3.86$, $SD = .92$), with a t value of -6.16 ($p < .001$) (see Table 2.2).

2. The teaching variable, instructor communication with students, demonstrated significance between: full-time faculty ($M = 4.32$, $SD = .81$) and coaches ($M = 4.01$, $SD = .87$), with a t value of 4.25 ($p < .001$); full-time faculty and part-time faculty ($M = 4.39$, $SD = .92$), with a t value of -3.10 ($p < .01$); GTA's/TA's ($M = 4.18$, $SD = .81$) and coaches, with a t value of 3.82 ($p < .001$); GTA's/TA's and part-time faculty, with a t value of -4.62 ($p < .001$); and coaches and part-time faculty, with a t value of -7.86 ($p < .001$) (see Table 2.3).

3. The teaching variable, instructor enthusiasm with class and students, resulted in significant differences

Table 2.2

Means, Results of t -Tests Between the Four Faculty Groups on Instructor Involvement with Students

	<u>N</u> = 435	<u>N</u> = 751	<u>N</u> = 727	<u>N</u> = 483
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 3.88	<u>M</u> = 3.81	<u>M</u> = 3.50	<u>M</u> = 3.86
Full-time faculty				
GTA's/TA's	1.23			
Coaches	6.06***	5.75***		
Part-time (adjunct) faculty	.21	-1.06	-6.16***	
Conclusions:	FF = GTA			
	FF > C	GTA > C		
	FF = PT	GTA = PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2.3

Means, Results of t-Tests Between the Four Faculty Groups on Instructor Communication with Students

	<u>N</u> = 435	<u>N</u> = 751	<u>N</u> = 727	<u>N</u> = 483
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.23	<u>M</u> = 4.18	<u>M</u> = 4.01	<u>M</u> = 4.39
Full-time faculty				
GTA's/TA's	1.07			
Coaches	4.25***	3.82***		
Part-time (adjunct) faculty	-3.10**	-4.62***	-7.86***	
Conclusions:	FF = GTA			
	FF > C	GTA > C		
	FF < PT	GTA < PT	C < PT	

*p < .05. **p < .01. ***p < .001.

between: full-time faculty ($\bar{M} = 4.31$, $SD = .78$) and coaches ($\bar{M} = 4.02$, $SD = .82$), with a t value of 5.78 ($p < .001$); GTA's/TA's ($\bar{M} = 4.20$, $SD = .78$) and coaches, with a t value of 4.30 ($p < .001$); and coaches and part-time faculty ($\bar{M} = 4.29$, $SD = .73$), with a t value of -5.61 ($p < .001$) (see Table 2.4).

4. The teaching variable, student subject mastery, showed significant differences between: full-time faculty ($\bar{M} = 3.68$, $SD = .93$) and part-time faculty ($\bar{M} = 3.94$, $SD = .83$), with a t value of -4.35 ($p < .001$); GTA's/TA's ($\bar{M} = 3.71$, $SD = .87$) and coaches ($\bar{M} = 3.60$, $SD = .96$), with a t value of 2.36 ($p < .05$); GTA's/TA's and part-time faculty, with a t value of -4.50 ($p < .001$); and coaches and part-time faculty, with a t value of -6.26 ($p < .001$) (see Table 2.5).

5. The teaching variable, student attitudes concerning physical education activity classes, showed significance between: full-time faculty ($\bar{M} = 4.07$, $SD = 1.06$) and coaches ($\bar{M} = 3.76$, $SD = 1.20$), with a t value of 4.22 ($p < .001$); and full-time faculty and part-time faculty ($\bar{M} = 4.25$, $SD = 1.02$), with a t value of -2.58 ($p < .01$); GTA's/TA's ($\bar{M} = 3.99$, $SD = 1.08$) and coaches, with a t value of 3.72 ($p < .001$); GTA's/TA's and part-time faculty, with a t value of -4.10 ($p < .001$); and coaches and part-time faculty, with a t value of -7.10 ($p < .001$) (see Table 2.6).

Table 2.4

Means, Results of t-Tests Between the Four Faculty Groups on Instructor Enthusiasm
with Class and Students

	<u>N</u> = 435	<u>N</u> = 751	<u>N</u> = 727	<u>N</u> = 483
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.31	<u>M</u> = 4.20	<u>M</u> = 4.02	<u>M</u> = 4.29
Full-time faculty				
GTA's/TA's	2.23*			
Coaches	5.78***	4.30***		
Part-time (adjunct) faculty	.48	-1.82	-5.61***	
Conclusions:	FF > GTA			
	FF > C	GTA > C		
	FF = PT	GTA = PT	C < PT	

*p < .05. **p < .01. ***p < .001.

Table 2.5

Means, Results of t-Tests Between the Four Faculty Groups on Student Subject Mastery

	<u>N</u> = 435	<u>N</u> = 751	<u>N</u> = 727	<u>N</u> = 483
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 3.68	<u>M</u> = 3.71	<u>M</u> = 3.60	<u>M</u> = 3.94
Full-time faculty				
GTA's/TA's	- .55			
Coaches	1.43	2.36*		
Part-time (adjunct) faculty	-4.35***	-4.50***	-6.26***	
Conclusions:	FF = GTA			
	FF = C	GTA > C		
	FF < PT	GTA < PT	C < PT	

*p < .05. **p < .01. ***p < .001.

Table 2.6

Means, Results of t -Tests Between the Four Faculty Groups on Student Attitudes
Concerning Physical Education Activity Classes

	<u>N</u> = 435	<u>N</u> = 751	<u>N</u> = 727	<u>N</u> = 483
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.07	<u>M</u> = 3.99	<u>M</u> = 3.76	<u>M</u> = 4.25
Full-time faculty				
GTA's/TA's	1.16			
Coaches	4.22***	3.72***		
Part-time (adjunct) faculty	-2.58**	-4.10***	-7.10***	
Conclusions:	FF = GTA			
	FF > C	GTA > C		
	FF < PT	GTA < PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

6. The final teaching variable, student rating of the course, indicated significance between: full-time faculty ($\bar{M} = 4.25$, $SD = .93$) and coaches ($\bar{M} = 4.02$, $SD = .97$), with a t value of 3.87 ($p < .001$); full-time faculty and part-time faculty ($\bar{M} = 4.44$, $SD = .72$), with a t value of -3.48 ($p < .001$); GTA's/TA's ($\bar{M} = 4.18$, $SD = .92$) and coaches, with a t value of 3.12 ($p < .01$); GTA's/TA's and part-time faculty, with a t value of -5.28 ($p < .001$); and coaches and part-time faculty, with a t value of -8.04 ($p < .001$) (see Table 2.7).

No significance was found between teaching groups on the variable, instructor evaluation methods. Table 2.8 provides the average \bar{M} and SD for each faculty group across the seven teaching variables.

Part 2--Male Students' Ratings of Male and
Female Instructors Across Four Faculty
Groups on Seven Teaching Variables

Table 3.1, Analysis of Variance for Male and Female Students' Ratings of Male Instructors in all Faculty Groups, is divided into two sections: (1) male students' ratings of male instructors and (2) female students' ratings of male instructors.

Section 1: Male Students' Ratings of Male Instructors

This section, looking across groups for male students, revealed an F score of 13.16 for instructor involvement ($p < .001$), an F score of 13.75 for instructor communication ($p < .001$), an F score of 6.95 for instructor enthusiasm

Table 2.7

Means, Results of t -Tests Between the Four Faculty Groups on Student Rating of the Course

	<u>N</u> = 435	<u>N</u> = 751	<u>N</u> = 727	<u>N</u> = 483
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.25	<u>M</u> = 4.18	<u>M</u> = 4.02	<u>M</u> = 4.44
Full-time faculty				
GTA's/TA's	1.28			
Coaches	3.87***	3.12**		
Part-time (adjunct) faculty	-3.48***	-5.28***	-8.04***	
Conclusions:	FF = GTA			
	FF > C	GTA > C		
	FF < PT	GTA < PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2.8
Means and Standard Deviations of Teaching Variables for Faculty Groups

Teaching Variable	Full-time Faculty		GTA's/TA's		Coaches		Part-time (adjunct) faculty	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Instructor involvement with students	3.88	.97	3.81	.97	3.50	1.05	3.86	.92
Instructor communication with students	4.23	.81	4.18	.81	4.01	.87	4.39	.72
Instructor enthusiasm with class and students	4.31	.78	4.20	.78	4.02	.82	4.29	.73
Instructor evaluation methods	4.48	.87	4.46	.88	4.41	.93	4.41	.93
Student subject mastery	3.68	.93	3.71	.87	3.60	.96	3.94	.83
Student attitudes concerning physical education activity classes	4.07	1.06	3.99	1.08	3.76	1.20	4.25	1.02
Student rating of the course	4.25	.93	4.18	.92	4.02	.97	4.44	.72
<u>M</u> and <u>SD</u> averages for all faculty groups	4.12	.91	4.07	.90	3.90	.97	4.22	.83

with class and students ($p < .01$), an F score of 2.70 for instructor evaluation ($p < .05$), an F score of 6.79 for student subject mastery, ($p < .001$), an F score of 11.99 for student attitudes concerning physical education activity classes, ($p < .001$), and an F score of 8.94 for student rating of the course ($p < .001$) (see Table 3.1).

Significant variables include:

1. The teaching variable, instructor involvement with students, revealed significance between: full-time faculty ($M = -3.40$, $SD = 1.10$) and GTA's/TA's ($M = 3.77$, $SD = .95$, with a t value of -3.40 ($p < .001$); full-time faculty and part-time faculty ($M = 3.78$, $SD = .90$), with a t value of -3.44 ($p < .001$); GTA's/TA's and coaches ($M = 3.34$, $SD = 1.07$), with a t value of 5.05 ($p < .001$); and coaches and part-time faculty, with a t value of -4.80 ($p < .001$) (see Table 3.2).

2. The teaching variable, instructor communication with students, showed significance between: full-time faculty ($M = 3.87$, $SD = .93$) and GTA's/TA's ($M = 4.17$, $SD = .75$), with a t value of -2.96 ($p < .01$); full-time faculty ($M = 3.87$, $SD = .93$) and part-time faculty ($M = 4.34$, $SD = .74$), with a t value of -4.41 ($p < .001$); GTA's/TA's and coaches ($M = 3.90$, $SD = .91$), with a t value of 3.79 ($p < .001$); GTA's/TA's and part-time faculty, with a t value of -2.46 ($p < .05$); and coaches and part-time faculty, with a t value of -5.70 ($p < .001$) (see Table 3.3).

Table 3.1
Analysis of Variance for Male and Female Students' Ratings of Male Instructors
in all Faculty Groups

Teaching Variable	Gender variable									
	Male students					Female students				
	Sum of squares	DF	Mean square	F	Prob.	Sum of squares	DF	Mean square	F	Prob.
Instructor involvement with students	642.606	3	214.202	13.16***	.000	79.449	3	26.483	1.72	.161
Instructor communication with students	716.587	3	238.862	13.75***	.000	276.700	3	92.233	5.95***	.001
Instructor enthusiasm with class and students	223.202	3	74.401	6.95**	.000	43.638	3	14.546	1.61	.184
Instructor evaluation methods	69.078	3	23.026	2.70*	.044	35.211	3	11.737	1.83	.140
Student subject mastery	143.997	3	47.999	6.79***	.000	128.372	3	42.791	6.09***	.000

Table 3.1 (continued)

Teaching variable	Gender variable									
	Male students					Female students				
	Sum of squares	DF	Mean square	F	Prob.	Sum of squares	DF	Mean square	F	Prob.
Student attitudes concerning physical education activity classes	43.991	3	14.664	11.99***	.000	17.335	3	5.778	5.33**	.001
Student rating of the course	204.322	3	68.107	8.94***	.000	229.065	3	76.355	10.84***	.000

*p < .05. **p < .01. ***p < .001.

Table 3.2

Means, Results of t -Tests Between the Four Faculty Groups on Male Students' Ratings of Male Instructors on Instructor Involvement with Students

	<u>N</u> = 88	<u>N</u> = 259	<u>N</u> = 317	<u>N</u> = 193
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 3.35	<u>M</u> = 3.77	<u>M</u> = 3.34	<u>M</u> = 3.78
Full-time faculty				
GTA's/TA's	-3.40***			
Coaches	.11	5.05***		
Part-time (adjunct) faculty	-3.44***	- .14	-4.80***	
Conclusions:	FF < GTA			
	FF = C	GTA > C		
	FF < PT	GTA = PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.3

Means, Results of t -Tests Between the Four Faculty Groups on Male Students'
Ratings of Male Instructors on Instructor Communication with Students

	<u>N</u> = 88	<u>N</u> = 259	<u>N</u> = 317	<u>N</u> = 193
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 3.87	<u>M</u> = 4.17	<u>M</u> = 3.90	<u>M</u> = 4.34
Full-time faculty				
GTA's/TA's	-2.96**			
Coaches	- .22	3.79***		
Part-time (adjunct) faculty	-4.51***	-2.46*	-5.70***	
Conclusions:	FF < GTA			
	FF = C	GTA > C		
	FF < PT	GTA < PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

3. The teaching variable, instructor enthusiasm with class and students, showed significance between: full-time faculty ($\bar{M} = 3.82$, $SD = .93$) and GTA's/TA's ($\bar{M} = 4.12$, $SD = 1.00$), with a t value of -3.00 ($p < .01$); full-time faculty and part-time faculty ($\bar{M} = 4.12$, $SD = .82$), with a t value of -2.70 ($p < .01$); GTA's/TA's and coaches ($\bar{M} = 3.88$, $SD = .82$), with a t value of 3.67 ($p < .001$); and coaches and part-time faculty, with a t value of -3.27 ($p < .01$) (see Table 3.4).

4. The teaching variable, instructor evaluation methods, revealed only a significance between full-time faculty ($\bar{M} = 4.10$, $SD = 1.12$) and GTA's/TA's ($\bar{M} = 4.42$, $SD = .88$), with a t value of -2.78 ($p < .05$) (see Table 3.5).

5. The teaching variable, student subject mastery, showed significance between: full-time faculty ($\bar{M} = 3.72$, $SD = .83$) and part-time faculty ($\bar{M} = 3.94$, $SD = .80$), with a t value of -2.01 ($p < .05$); GTA's/TA's ($\bar{M} = 3.73$, $SD = .86$) and coaches ($\bar{M} = 3.57$, $SD = .95$), with a t value of 1.96 ($p < .05$); GTA's/TA's and part-time faculty, with a t value of -2.60 ($p < .01$); and coaches and part-time faculty, with a t value of -4.30 ($p < .001$) (see Table 3.6).

6. The teaching variable, student attitudes concerning physical education activity classes, showed significance between: full-time faculty ($\bar{M} = 3.83$, $SD = .99$) and part-time faculty ($\bar{M} = 4.24$, $SD = .98$), with a t value of -3.17 ($p < .01$); GTA's/TA's ($\bar{M} = 4.04$, $SD = 1.12$) and coaches

Table 3.4

Means, Results of t -Tests Between the Four Faculty Groups on Male Students' Ratings of Male Instructors on Instructor Enthusiasm with Class and Students

	<u>N</u> = 88	<u>N</u> = 259	<u>N</u> = 317	<u>N</u> = 193
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 3.82	<u>M</u> = 4.12	<u>M</u> = 3.88	<u>M</u> = 4.12
Full-time faculty				
GTA's/TA's	-3.00**			
Coaches	- .50	3.67***		
Part-time (adjunct) faculty	-2.70**	- .04	-3.27**	
Conclusions:	FF < GTA			
	FF = C	GTA > C		
	FF < PT	GTA = PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.5

Means, Results of t -Tests Between the Four Faculty Groups on Male Students' Ratings of Male Instructors on Instructor Evaluation Methods

	<u>N</u> = 88	<u>N</u> = 259	<u>N</u> = 317	<u>N</u> = 193
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.10	<u>M</u> = 4.42	<u>M</u> = 4.28	<u>M</u> = 4.31
Full-time faculty				
GTA's/TA's	-2.78*			
Coaches	-1.41	1.80		
Part-time (adjunct) faculty	-1.66	1.39	-.32	
Conclusions:	FF < GTA			
	FF = C	GTA = C		
	FF = PT	GTA = PT	C = PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.6

Means, Results of t -Tests Between the Four Faculty Groups on Male Students' Ratings of Male Instructors on Student Subject Mastery

	<u>N</u> = 88	<u>N</u> = 259	<u>N</u> = 317	<u>N</u> = 193
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 3.72	<u>M</u> = 3.73	<u>M</u> = 3.57	<u>M</u> = 3.94
Full-time faculty				
GTA's/TA's	- .02			
Coaches	1.31	1.96*		
Part-time (adjunct) faculty	-2.01*	-2.60**	-4.30***	
Conclusions:	FF = GTA			
	FF = C	GTA > C		
	FF < PT	GTA < PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

(\bar{M} = 3.66, SD = 1.18), with a t value of 3.88 (p < .001); and coaches and part-time faculty, with a t value of -5.56 (p < .001) (see Table 3.7).

7. The teaching variable, student rating of the course, showed significance between: full-time faculty (\bar{M} = 3.85, SD = .95) and GTA's/TA's (\bar{M} = 4.10, SD = .97), with a t value of -2.02 (p < .05); full-time faculty and part-time faculty (\bar{M} = 4.38, SD = .71), with a t value of -5.03 (p < .001); GTA's/TA's and part-time faculty, with a t value of -3.36 (p < .001); and coaches (\bar{M} = 3.99, SD = .97) and part-time faculty, with a t value of -4.76 (p < .001) (see Table 3.8).

Section 2: Female Students' Ratings of Female Instructors

This section recorded an F score of 1.72 for instructor involvement with female students, an F score of 5.95 for instructor communication with female students (p < .001), an F score of 1.61 for instructor enthusiasm with class and students, an F score of 1.83 for instructor evaluation methods, an F score of 6.09 for student subject mastery (p < .001), an F score of 5.33 for student attitudes concerning physical education activity classes, (p < .01), and an F score of 10.84 for student rating of the course (p < .001) (see Table 3.1).

Table 3.7

Means, Results of t -Tests Between the Four Faculty Groups on Male Students' Ratings of Male Instructors on Student Attitudes Concerning Physical Education Activity Classes

	<u>N</u> = 88	<u>N</u> = 259	<u>N</u> = 317	<u>N</u> = 193
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 3.83	<u>M</u> = 4.04	<u>M</u> = 3.66	<u>M</u> = 4.24
Full-time faculty				
GTA's/TA's	-1.53			
Coaches	1.22	3.88		
Part-time (adjunct) faculty	-3.17**	-1.95	-5.56***	
Conclusions:	FF = GTA			
	FF = C	GTA = C		
	FF < PT	GTA = PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.8

Means, Results of t -Tests Between the Four Faculty Groups on Male Students' Ratings of Male Instructors on Student Rating of the Course

	<u>N</u> = 88	<u>N</u> = 259	<u>N</u> = 317	<u>N</u> = 193
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 3.85	<u>M</u> = 4.10	<u>M</u> = 3.99	<u>M</u> = 4.38
Full-time faculty				
GTA's/TA's	-2.02*			
Coaches	-1.12	1.35		
Part-time (adjunct) faculty	-5.03***	-3.36***	-4.76***	
Conclusions:	FF < GTA			
	FF = C	GTA = C		
	FF < PT	GTA < PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Significant variables include:

1. The teaching variable, instructor involvement with students, revealed only a significance between: coaches ($\bar{M} = 3.69$, $SD = .82$) and part-time faculty ($\bar{M} = 3.90$, $SD = .67$), with a t value of -2.13 ($p < .05$) (see Table 3.9).

2. The teaching variable, instructor communication with students, indicated a significance between: GTA's/TA's ($\bar{M} = 4.21$, $SD = .86$) and part-time faculty ($\bar{M} = 4.46$, $SD = .67$), with a t value of -3.17 ($p < .01$); and coaches ($\bar{M} = 4.16$, $SD = .82$) and part-time faculty, with a t value of -4.01 ($p < .001$) (see Table 3.10).

3. The teaching variable, instructor enthusiasm with class and students, revealed only a significance between: coaches ($\bar{M} = 4.19$, $SD = .82$) and part-time faculty ($\bar{M} = 4.36$, $SD = .64$), with a t value of -2.17 ($p < .05$) (see Table 3.11).

4. The teaching variable, student subject mastery, revealed significance between: full-time faculty ($\bar{M} = 3.66$, $SD = .85$) and part-time faculty ($\bar{M} = 4.02$, $SD = .84$), with a t value of -3.01 ($p < .01$); GTA's/TA's ($\bar{M} = 3.67$, $SD = .88$) and part-time faculty, with a t value of -3.84 ($p < .001$); and coaches ($\bar{M} = 3.67$, $SD = .87$) and part-time faculty, with a t value of -3.71 ($p < .001$) (see Table 3.12).

5. The teaching variable, student attitudes concerning physical education activity classes, showed significance between: GTA's/TA's ($\bar{M} = 3.99$, $SD = 1.02$) and part-time

Table 3.9

Means, Results of t -Tests Between the Four Faculty Groups on Female Students' Ratings of Male Instructors on Instructor Involvement with Students

	<u>N</u> = 78	<u>N</u> = 229	<u>N</u> = 254	<u>N</u> = 167
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 3.81	<u>M</u> = 3.80	<u>M</u> = 3.69	<u>M</u> = 3.90
Full-time faculty				
GTA's/TA's	.11			
Coaches	.92	1.12		
Part-time (adjunct) faculty	-.70	-1.05	-2.13*	
Conclusions:	FF = GTA			
	FF = C	GTA = C		
	FF = PT	GTA = PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.10

Means, Results of t -Tests Between the Four Faculty Groups on Female Students' Ratings of Male Instructors on Instructor Communication with Students

	<u>N</u> = 78	<u>N</u> = 229	<u>N</u> = 254	<u>N</u> = 167
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.35	<u>M</u> = 4.21	<u>M</u> = 4.16	<u>M</u> = 4.46
Full-time faculty				
GTA's/TA's	1.26			
Coaches	1.83	.69		
Part-time (adjunct) faculty	-1.26	-3.17**	-4.01***	
Conclusions:	FF = GTA			
	FF = C	GTA = C		
	FF = PT	GTA < PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.11

Means, Results of t -Tests Between the Four Faculty Groups on Female Students' Ratings of Male Instructors on Instructor Enthusiasm with Class and Students

	<u>N</u> = 78	<u>N</u> = 229	<u>N</u> = 254	<u>N</u> = 167
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.34	<u>M</u> = 4.29	<u>M</u> = 4.19	<u>M</u> = 4.36
Full-time faculty				
GTA's/TA's	.57			
Coaches	1.43	1.31		
Part-time (adjunct) faculty	- .15	- .98	-2.17*	
Conclusions:	FF = GTA			
	FF = C	GTA = C		
	FF = PT	GTA = PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.12

Means, Results of t-Tests Between the Four Faculty Groups on Female Students' Ratings of Male Instructors on Student Subject Mastery

	<u>N</u> = 78	<u>N</u> = 229	<u>N</u> = 254	<u>N</u> = 167
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 3.66	<u>M</u> = 3.67	<u>M</u> = 3.67	<u>M</u> = 4.02
Full-time faculty				
GTA's/TA's	- .06			
Coaches	- .11	- .06		
Part-time (adjunct) faculty	-3.01**	-3.84***	-3.71***	
Conclusions:	FF = GTA			
	FF = C	GTA = C		
	FF < PT	GTA < PT	C < PT	

*p < .05. **p < .01. ***p < .001.

faculty ($\bar{M} = 4.28$, $SD = 1.03$), with a t value of -2.81 ($p < .01$); and coaches ($\bar{M} = 3.99$, $SD = 1.02$) and part-time faculty, with a t value of -3.32 ($p < .001$) (see Table 3.13).

6. The teaching variable, student rating of the course, registered significance between: full-time faculty ($\bar{M} = 4.07$, $SD = .98$) and part-time faculty ($\bar{M} = 4.58$, $SD = .66$), with a t value of -4.69 ($p < .001$); GTA's/TA's ($\bar{M} = 4.19$, $SD = .91$) and part-time faculty, with a t value of -4.59 ($p < .001$); and coaches ($\bar{M} = 4.09$, $SD = .93$) and part-time faculty, with a t value of -5.66 ($p < .001$) (see Table 3.14).

No significance was found between subgroups on the teaching variables, instructor involvement, instructor enthusiasm with class and students, and instructor evaluation methods. Tables 3.15-3.19 provide the average \bar{M} and SD of male and female students' ratings of male instructors.

Part 3--Female Students' Ratings of Male and Female
Instructors Across Four Faculty Groups on
Seven Teaching Variables

Table 4.1, Analysis of Variance for Male and Female Students' Ratings of Female Instructors for all Faculty Groups, is also divided into two sections: (1) male students' ratings of female instructors and (2) female students' ratings of female instructors.

Table 3.13

Means, Results of t -Tests Between the Four Faculty Groups on Female Students' Ratings of Male Instructors on Student Attitudes Concerning Physical Education Activity Classes

	<u>N</u> = 78	<u>N</u> = 229	<u>N</u> = 254	<u>N</u> = 167
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.14	<u>M</u> = 3.99	<u>M</u> = 3.91	<u>M</u> = 4.28
Full-time faculty				
GTA's/TA's	1.17			
Coaches	1.61	.77		
Part-time (adjunct) faculty	-1.07	-2.81**	-3.32***	
Conclusions:	FF = GTA			
	FF = C	GTA = C		
	FF = PT	GTA = PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.14

Means, Results of t -Tests Between the Four Faculty Groups on Female Students' Ratings of Male Instructors on Student Rating of the Course

	<u>N</u> = 78	<u>N</u> = 229	<u>N</u> = 254	<u>N</u> = 167
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.07	<u>M</u> = 4.19	<u>M</u> = 4.09	<u>M</u> = 4.58
Full-time faculty				
GTA's/TA's	-1.00			
Coaches	- .21	1.13		
Part-time (adjunct) faculty	-4.69***	-4.59***	-5.66***	
Conclusions:	FF = GTA			
	FF = C	GTA = C		
	FF < PT	GTA < PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.15
Means and Standard Deviations Resulting from Male and Female Students' Ratings
of Male Full-Time Faculty Members

Teaching variable	Student gender			
	Male students		Female students	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Instructor involvement with students	3.35	1.10	3.81	.94
Instructor communication with students	3.87	.93	4.35	.71
Instructor enthusiasm with class and students	3.82	.93	4.34	.76
Instructor evaluation methods	4.10	1.12	3.49	.61
Student subject mastery	3.72	.83	3.66	.85
Student attitudes concerning physical education activity classes	3.83	.99	4.14	.86
Student rating of the course	3.85	.95	4.07	.98
<u>M</u> and <u>SD</u> averages for all teaching variables	3.79	.97	3.98	.81

Table 3.16
Means and Standard Deviations Resulting from Male and Female Students' Ratings
of Male GTA's/TA's

Teaching variable	Student gender			
	Male students		Female students	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Instructor involvement with students	3.77	.95	3.80	1.00
Instructor communication with students	4.17	.75	4.21	.86
Instructor enthusiasm with class and students	4.12	1.00	4.29	.74
Instructor evaluation methods	4.42	.88	4.59	.82
Student subject mastery	3.73	.86	3.67	.88
Student attitudes concerning physical education activity classes	4.04	1.12	3.99	1.02
Student rating of the course	4.10	.97	4.19	.91
<u>M</u> and <u>SD</u> averages for all teaching variables	4.04	.93	4.10	.89

Table 3.17
Means and Standard Deviations Resulting from Male and Female Students' Ratings
of Male Coaches

Teaching variable	Student gender			
	Male students		Female students	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Instructor involvement with students	3.34	1.07	3.69	1.00
Instructor communication with students	3.90	.91	4.16	.82
Instructor enthusiasm with class and students	3.88	.82	4.19	.82
Instructor evaluation methods	4.28	1.03	4.49	.86
Student subject mastery	3.57	.95	3.67	.92
Student attitudes concerning physical education activity classes	3.66	1.18	3.91	1.14
Student rating of the course	3.99	.97	4.09	.93
<u>M</u> and <u>SD</u> averages for all teaching variables	3.80	.99	4.02	.92

Table 3.18
Means and Standard Deviations Resulting from Male and Female Students' Ratings
of Male Part-Time (Adjunct) Faculty

Teaching variable	Student gender			
	Male students		Female students	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Instructor involvement with students	3.78	.90	3.90	.90
Instructor communication with students	4.34	.74	4.46	.67
Instructor enthusiasm with class and students	4.12	.82	4.36	.64
Instructor evaluation methods	4.31	.89	4.43	.92
Student subject mastery	3.94	.80	4.02	.84
Student attitudes concerning physical education activity classes	4.24	.98	4.28	1.03
Student rating of the course	4.38	.71	4.58	.66
<u>M</u> and <u>SD</u> averages for all teaching variables	4.15	.83	4.29	.80

Table 3.19

Means and Standard Deviations Resulting From Male
and Female Students' Ratings of Male Instructors
for Four Faculty Groups

Faculty groups	Student gender			
	Male students		Female students	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Full-time faculty	3.79	.97	3.98	.81
GTA's/TA's	4.04	.93	4.10	.89
Coaches	3.80	.99	4.02	.92
Part-time (adjunct) faculty	4.15	.83	4.29	.80
<u>M and SD averages for all faculty groups</u>	3.94	.93	4.10	.85

Section 1: Male Students' Evaluation of Female Instructors

This section revealed an F score of 5.70 for the teaching variable, instructor involvement with male students ($p < .01$), an F score of 3.63 for the teaching variable, instructor communication with male students ($p < .05$), an F score of 6.22 for the teaching variable, instructor enthusiasm with class and students ($p < .001$), an F score of 4.50 for the teaching variable, instructor evaluation methods ($p < .01$), an F score of 1.01 for the teaching

Table 4.1
Analysis of Variance for Male and Female Students' Ratings of Female Instructors
for Four Faculty Groups

Teaching variable	Gender variable									
	Section 1 male students					Section 2 female students				
	Sum of squares	DF	Mean square	F	Prob.	Sum of squares	DF	Mean square	F	Prob.
Instructor involvement with students	268.833	3	89.611	5.70**	.001	175.237	3	58.412	4.21**	.006
Instructor communication with students	212.546	3	70.849	3.63*	.013	104.607	3	34.869	2.55	.055
Instructor enthusiasm with class and students	194.733	3	64.911	6.22***	.000	115.173	3	38.391	5.30**	.001
Instructor evaluation methods	107.718	3	35.906	4.50**	.004	17.818	3	5.939	1.20	.307

Table 4.1 (continued)

Teaching variable	Gender variable									
	Section 1 male students					Section 2 female students				
	Sum of squares	DF	Mean square	F	Prob.	Sum of squares	DF	Mean square	F	Prob.
Student subject mastery	26.702	3	8.901	1.01	.386	48.700	3	16.233	2.23	.083
Student attitudes concerning physical education activity classes	4.474	3	1.491	1.00	.392	21.260	3	7.087	5.68***	.001
Student rating of the course	31.431	3	10.477	1.45	.226	172.203	3	57.401	8.11***	.000

*p < .05. **p < .01. ***p < .001.

variable, student attitudes concerning physical education activity classes, and an F score of 1.45 for the teaching variable, student rating of the course.

Significant variables include:

1. Computations of t -tests on the teaching variable, instructor involvement with students, revealed a significance between: full-time faculty ($M = 3.97$, $SD = 1.01$) and coaches ($M = 3.41$, $SD = .93$), with a t value of 3.73 ($p < .01$); and coaches and part-time faculty ($M = 4.00$, $SD = .99$), with a t value of -2.72 ($p < .01$) (see Table 4.2).

2. The teaching variable, instructor communication with students, showed significance between: full-time faculty ($M = 4.32$, $SD = .82$) and coaches ($M = 3.90$, $SD = .92$), with a t value of 2.87 ($p < .01$); and coaches and part-time faculty ($M = 4.29$, $SD = .87$), with a t value of -2.47 ($p < .05$) (see Table 4.3).

3. The teaching variable, instructor enthusiasm with class and students, revealed significance between: full-time faculty ($M = 4.27$, $SD = .71$) and GTA's/TA's ($M = 3.90$, $SD = .81$), with a t value of 3.56 ($p < .001$); full-time faculty and coaches ($M = 3.85$, $SD = .83$), with a t value of 3.15 ($p < .01$); GTA's/TA's and part-time faculty ($M = 4.30$, $SD = .79$), with a t value of -2.61 ($p < .01$); and coaches and part-time faculty, with a t value of -2.30 ($p < .05$) (see Table 4.4).

Table 4.2

Means, Results of t -Tests Between the Four Faculty Groups on Male Students' Ratings of Female Instructors on Instructor Involvement with Students

	<u>N</u> = 82	<u>N</u> = 82	<u>N</u> = 82	<u>N</u> = 36
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 3.97	<u>M</u> = 3.71	<u>M</u> = 3.41	<u>M</u> = 4.00
Full-time faculty				
GTA's/TA's	1.92			
Coaches	3.73***	-1.95		
Part-time (adjunct) faculty	.17	-1.33	-2.72**	
Conclusions:	FF = GTA			
	FF > C	GTA = C		
	FF = PT	GTA = PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 4.3

Means, Results of t -Tests Between the Four Faculty Groups on Male Students' Ratings of Female Instructors on Instructor Communication with Students

	<u>N</u> = 82	<u>N</u> = 82	<u>N</u> = 82	<u>N</u> = 36
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.32	<u>M</u> = 4.01	<u>M</u> = 3.90	<u>M</u> = 4.29
Full-time faculty				
GTA's/TA's	1.93			
Coaches	2.87**	.86		
Part-time (adjunct) faculty	- .19	-1.70	-2.47*	
Conclusions:	FF = GTA			
	FF > C	GTA = C		
	FF = PT	GTA = PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 4.4

Means, Results of t-Tests Between the Four Faculty Groups on Male Students' Ratings of Female Instructors on Instructor Enthusiasm with Class and Students

	<u>N</u> = 82	<u>N</u> = 82	<u>N</u> = 82	<u>N</u> = 36
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.27	<u>M</u> = 3.90	<u>M</u> = 3.85	<u>M</u> = 4.30
Full-time faculty				
GTA's/TA's	3.56***			
Coaches	3.15**	- .45		
Part-time (adjunct) faculty	.22	-2.61**	-2.30*	
Conclusions:	FF > GTA			
	FF > C	GTA = C		
	FF = PT	GTA < PT	C < PT	

*p < .05. **p < .01. ***p < .001.

4. The teaching variable, instructor evaluation methods, revealed significance between: full-time faculty ($\bar{M} = 4.45$, $SD = .69$) and GTA's/TA's ($\bar{M} = 4.07$, $SD = .80$), with a t value of 2.31 ($p < .05$); and GTA's/TA's and part-time faculty ($\bar{M} = 4.62$, $SD = .96$), with a t value of -2.73 ($p < .01$) (see Table 4.5).

No significance was found between subgroups' scores on the teaching variables, students subject mastery, student attitudes concerning physical education activity classes, and student rating of the course.

Section 2: Female Students' Evaluation of Female Instructors

This section recorded an F score of 4.21 for instructor involvement with female students ($p < .01$), an F score of 2.55 for instructor communication with students, an F score of 5.30 for instructor enthusiasm with class and students ($p < .01$), an F score of 1.20 for instructor evaluation methods, an F score of 2.23 for student subject mastery, an F score of 5.68 for student attitudes concerning physical education activity classes, ($p < .001$), and an F score of 8.11 for student rating of the course ($p < .001$).

Significant variables include:

1. Computations of t -tests on the teaching variable, instructor involvement with students, recorded significance between: full-time faculty ($\bar{M} = 4.13$, $SD = .94$) and GTA's/TA's ($\bar{M} = 3.89$, $SD = 1.01$), with a t value of 2.49 ($p < .05$); and full-time faculty and coaches ($\bar{M} = 3.71$,

Table 4.5

Means, Results of t -Tests Between the Four Faculty Groups on Male Students' Ratings of Female Instructors by Instructor Evaluation Methods

	<u>N</u> = 82	<u>N</u> = 81	<u>N</u> = 82	<u>N</u> = 36
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.45	<u>M</u> = 4.07	<u>M</u> = 4.53	<u>M</u> = 4.62
Full-time faculty				
GTA's/TA's	2.31*			
Coaches	- .54	.97		
Part-time (adjunct) faculty	- .97	-2.73**	- .63	
Conclusions:	FF > GTA			
	FF = C	GTA = C		
	FF = PT	GTA < PT	C = PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

SD = .99), with a t value of 3.54 ($p < .001$) (see Table 4.6).

2. The teaching variable, instructor communication with students, showed only significance between: coaches (M = 4.23, SD = .77) and part-time faculty (M = 4.36, SD = .71), with a t value of -2.18 ($p < .05$) (see Table 4.7).

3. The teaching variable, instructor enthusiasm with class and female students, posted a significance between: full-time faculty (M = 4.57, SD = .46) and GTA's/TA's (M = 4.38, SD = .72), with a t value of 2.60 ($p < .01$); full-time faculty and coaches (M = 4.24, SD = .78), with a t value of 3.97 ($p < .001$); and coaches and part-time faculty, with a t value of -2.72 ($p < .01$) (see Table 4.8).

4. The teaching variable, student attitudes concerning physical education activity classes, recorded a significance between: full-time faculty (M = 4.28, SD = 1.02) and GTA's/TA's (M = 3.98, SD = 1.07), with a t value of 2.57 ($p < .05$); full-time faculty and coaches (M = 3.67, SD = 1.34), with a t value of 3.87 ($p < .001$); and coaches and part-time faculty (M = 4.21, SD = 1.11), with a t value of -2.78 ($p < .01$) (see Table 4.9).

5. The teaching variable, student rating of the course, registered significance between: full-time faculty (M = 4.37, SD = .77) and GTA's/TA's (M = 3.96, SD = 1.10), with a t value of 3.06 ($p < .01$); full-time faculty and coaches (M = 4.27, SD = .89), with a t value of 4.78

Table 4.6

Means, Results of t-Tests Between the Four Faculty Groups on Female Students' Ratings of Female Instructors on Instructor Involvement with Students

	<u>N</u> = 175	<u>N</u> = 171	<u>N</u> = 78	<u>N</u> = 83
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.13	<u>M</u> = 3.89	<u>M</u> = 3.71	<u>M</u> = 3.95
Full-time faculty				
GTA's/TA's	2.49*			
Coaches	3.54***	1.30		
Part-time (adjunct) faculty	1.60	- .47	-1.56	
Conclusions:	FF > GTA			
	FF > C	GTA = C		
	FF = PT	GTA = PT	C = PT	

*p < .05. **p < .01. ***p < .001.

Table 4.7

Means, Results of t -Tests Between the Four Faculty Groups on Female Students' Ratings of Female Instructors on Instructor Communication with Students

	<u>N</u> = 175	<u>N</u> = 171	<u>N</u> = 78	<u>N</u> = 83
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.36	<u>M</u> = 4.23	<u>M</u> = 4.17	<u>M</u> = 4.42
Full-time faculty				
GTA's/TA's	1.58			
Coaches	1.84	.56		
Part-time (adjunct) faculty	- .66	-1.91	-2.18*	
Conclusions:	FF = GTA			
	FF = C	GTA = C		
	FF = PT	GTA = PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 4.8

Means, Results of t -Tests Between the Four Faculty Groups on Female Students' Ratings of Female Instructors on Instructor Enthusiasm with Class and Students

	<u>N</u> = 175	<u>N</u> = 171	<u>N</u> = 78	<u>N</u> = 83
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.57	<u>M</u> = 4.38	<u>M</u> = 4.24	<u>M</u> = 4.52
Full-time faculty				
GTA's/TA's	2.60**			
Coaches	3.97***	1.36		
Part-time (adjunct) faculty	.68	1.46	-2.72**	
Conclusions:	FF > GTA			
	FF > C	GTA = C		
	FF = PT	GTA = PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 4.9

Means, Results of t -Tests Between the Four Faculty Groups on Female Students' Ratings of Female Instructors on Student Attitudes Concerning Physical Education Activity Classes

	<u>N</u> = 175	<u>N</u> = 171	<u>N</u> = 78	<u>N</u> = 83
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.28	<u>M</u> = 3.98	<u>M</u> = 3.67	<u>M</u> = 4.21
Full-time faculty				
GTA's/TA's	2.57*			
Coaches	3.87***	1.93		
Part-time (adjunct) faculty	.46	-1.58	-2.78**	
Conclusions:	FF > GTA			
	FF > C	GTA = C		
	FF = PT	GTA = PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

($p < .001$); GTA's/TA's and coaches, with a t value of 2.36 ($p < .05$); and coaches and part-time faculty ($M = 4.55$, $SD = .80$), with a t value of -2.77 ($p < .01$) (see Table 4.10).

The teaching variables, instructor evaluation methods of female students and student subject mastery, showed no significant differences as rated by the female students. No significance was found between subgroups on the teaching variables, instructor communication with class and students, instructor evaluation methods, and student subject mastery. Tables 4.11-4.15 provide the average M and SD of male and female students' ratings of female instructors.

Part 4--Students' Ratings of Instructors Across Four Faculty Groups by the Type of Activity

In Table 5.1, Analysis of Variance of Faculty Groups Concerning the Type of Activity (individual/dual, team games, and dance/rhythms), revealed a significant F score of 20.97 for individual/dual activities ($p < .001$). Team games activities recorded a nonsignificant F score of 2.21. The final activity type, dance/rhythms, showed a significant F score of 3.92 ($p < .01$).

For activity type, individual/dual activities recorded significance between: full-time faculty ($M = 4.09$, $SD = .95$) and part-time faculty ($M = 4.44$, $SD = .70$), with a t value of -4.96 ($p < .001$); GTA's/TA's ($M = 4.18$, $SD = .91$) and coaches ($M = 3.94$, $SD = .97$), with a t value of 3.89 ($p < .001$); GTA's/TA's and part-time faculty, with a t value

Table 4.10

Means, Results of t -Tests Between the Four Faculty Groups on Female Students' Ratings of Female Instructors on Student Rating of the Course

	$N = 175$	$N = 171$	$N = 78$	$N = 83$
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	$M = 4.55$	$M = 4.27$	$M = 3.96$	$M = 4.37$
Full-time faculty				
GTA's/TA's	3.06**			
Coaches	4.78***	2.36*		
Part-time (adjunct) faculty	1.68	- .90	-2.77**	
Conclusions:	FF > GTA			
	FF > C	GTA > C		
	FF = PT	GTA = PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 4.11

Means and Standard Deviations Resulting from Male and Female Students' Ratings
of Female Full-Time Faculty Members on Seven Teaching Variables

Teaching variable	Student gender			
	Male students		Female students	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Instructor involvement with students	3.97	1.01	4.13	.94
Instructor communication with students	4.32	.82	4.36	.63
Instructor enthusiasm with class and students	4.27	.71	4.57	.46
Instructor evaluation methods	4.45	.69	4.50	.86
Student subject mastery	3.69	1.01	3.95	.79
Student attitudes concerning physical education activity classes	4.22	1.01	4.21	1.11
Student rating of the course	4.36	.81	4.55	.77
<u>M</u> and <u>SD</u> averages on all teaching variables	4.18	.86	4.32	.79

Table 4.12

Means and Standard Deviations Resulting from Male and Female Students' Ratings
of Female GTA's/TA's on Seven Teaching Variables

Teaching variable	Student gender			
	Male students		Female students	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Instructor involvement with students	3.71	1.02	3.89	1.01
Instructor communication with students	4.01	.86	4.23	.79
Instructor enthusiasm with class and students	3.90	.81	4.38	.72
Instructor evaluation methods	4.07	.80	4.61	.72
Student subject mastery	3.52	1.09	3.61	.92
Student attitudes concerning physical education activity classes	3.83	1.29	3.67	1.34
Student rating of the course	4.02	.91	4.27	1.10
<u>M</u> and <u>SD</u> averages on all teaching variables	3.86	.97	4.09	.94

Table 4.13

Means and Standard Deviations Resulting from Male and Female Students' Ratings
of Female Coaches on Seven Teaching Variables

Teaching variable	Student gender			
	Male students		Female students	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Instructor involvement with students	3.41	.93	3.71	.99
Instructor communication with students	3.90	.92	4.17	.77
Instructor enthusiasm with class and students	3.85	.83	4.24	.78
Instructor evaluation methods	4.53	1.11	4.55	.76
Student subject mastery	3.78	.87	3.71	.83
Student attitudes concerning physical education activity classes	3.84	1.19	3.98	1.07
Student rating of the course	4.19	.88	3.96	.89
<u>M</u> and <u>SD</u> averages on all teaching variables	3.93	.96	4.04	.87

Table 4.14
Means and Standard Deviations Resulting from Male and Female Students' Ratings
of Female Part-Time (Adjunct) Faculty Members on Seven Teaching Variables

Teaching variable	Student gender			
	Male students		Female students	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Instructor involvement with students	4.00	.99	3.95	.80
Instructor communication with students	4.29	.87	4.42	.71
Instructor enthusiasm with class and students	4.30	.79	4.52	.55
Instructor evaluation methods	4.62	.96	4.67	.55
Student subject mastery	3.72	.95	3.64	1.00
Student attitudes concerning physical education activity classes	3.87	1.26	4.28	1.02
Student rating of the course	4.25	.91	4.37	.80
<u>M</u> and <u>SD</u> averages on all teaching variables	4.12	.96	4.26	.77

Table 4.15

Means and Standard Deviations Resulting From Male and
Female Students' Ratings of Female Instructors
for Four Faculty Groups

Faculty groups	Student gender			
	Male students		Female students	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Full-time faculty	4.18	.86	4.32	.79
GTA's/TA's	3.86	.97	4.09	.94
Coaches	3.98	.96	4.04	.87
Part-time (adjunct) faculty	4.12	.96	4.26	.80
<u>M</u> and <u>SD</u> averages for all faculty groups	4.03	.93	4.18	.85

of -4.27 ($p < .001$); and coaches and part-time faculty, with a t value of -7.96 ($p < .001$) (see Table 5.2). For activity type, team games, no significant differences were recorded between the faculty groups. Dance/rhythms activities showed significance between full-time faculty ($M = 4.58$, $SD = .75$) and GTA's/TA's ($M = 4.28$, $SD = .94$), registering a t value of 2.87 ($p < .01$). It must be noted that no coach instructed any dance/rhythms activities (see Table 5.3).

Table 5.1
Analysis of Variance of Faculty Groups Concerning the Type of Activity

Type of activity	Sum of squares	DF	Mean square	F	Prob.
Individual/dual	458.018	3	152.673	20.97***	.000
Team games	54.173	3	18.058	2.21	.086
Dance/rhythms	45.683	2	22.841	3.92**	.020

*p < .05. **p < .01. ***p < .001.

Table 5.2

Means, Results of t -Tests Between the Four Faculty Groups on Students' Ratings of Individual/Dual Activities

	<u>N</u> = 227	<u>N</u> = 456	<u>N</u> = 461	<u>N</u> = 329
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.09	<u>M</u> = 4.18	<u>M</u> = 3.94	<u>M</u> = 4.44
Full-time faculty				
GTA's/TA's	-1.22			
Coaches	1.92	3.89***		
Part-time (adjunct) faculty	-4.96***	-4.27***	-7.96***	
Conclusions:	FF = GTA			
	FF = C	GTA > C		
	FF < PT	GTA < PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5.3
Means, Results of t -Tests Between the Four Faculty Groups on Students' Ratings of
Dance/Rhythms Activities

	<u>N</u> = 156	<u>N</u> = 97	<u>N</u> = 0	<u>N</u> = 91
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.58	<u>M</u> = 4.28	--	<u>M</u> = 4.49
Full-time faculty				
GTA's/TA's	2.87**			
Coaches	--	--		
Part-time (adjunct) faculty	1.03	-1.73	--	
Conclusions:	FF > GTA			
	FF = PT	GTA = PT		

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5.4 provides the average M and SD of the three activity types across the four faculty groups.

Table 5.4

Means and Standard Deviations Resulting from Students' Ratings of Activity Type for Four Faculty Groups

Faculty groups	Activity type					
	Individual/ dual		Team games		Dance/ rhythms	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Full-time faculty	4.09	.95	3.85	1.08	4.58	.75
GTA's/TA's	4.18	.91	4.12	.94	4.28	.94
Coaches	3.94	.97	4.18	.94	--	--
Part-time (adjunct) faculty	4.44	.70	4.36	.91	4.49	.68
<u>M</u> and <u>SD</u> averages for all faculty groups	4.16	.88	4.12	.96	4.45	.79

Part 5--Students' Ratings of Instructors Across All Four Faculty Groups by Age of Instructor

Table 6.1, Analysis of Variance of Students' Ratings Concerning Age of Instructor Across Four Faculty Groups, divided the chronological age of faculty members into two distinct categories, 40 years of age or under and over 40

Table 6.1
Analysis of Variance of Students' Ratings Concerning Age of Instructor
Across Four Faculty Groups

Age of instructor	Sum of squares	<u>DF</u>	Mean square	<u>F</u>	Prob.
40 or under	237.763	3	79.254	10.31***	.000
Over 40	302.343	3	100.781	15.15***	.000

*p < .05. **p < .01. ***p < .001.

years of age. For instructors 40 years of age or under, an F score of 10.31 was significant ($p < .001$). Faculty members over 40 years of age recorded an F score of 15.15 ($p < .001$).

Instructors 40 years of age or under recorded significance between: full-time faculty ($\bar{M} = 4.15$, $SD = .98$) and part-time faculty ($\bar{M} = 4.37$, $SD = .74$), with a t value of -2.41 ($p < .05$); GTA's/TA's ($\bar{M} = 4.21$, $SD = .91$) and coaches ($\bar{M} = 3.99$, $SD = 1.00$), with a t value of 3.92 ($p < .001$); GTA's/TA's and part-time faculty, with a t value of -2.43 ($p < .05$); and coaches and part-time faculty, with a t value of -5.30 ($p < .001$) (see Table 6.2). For instructors under 40 years of age, significance was found between: full-time faculty ($\bar{M} = 4.31$, $SD = .90$) and GTA's/TA's ($\bar{M} = 3.89$, $SD = 1.02$), with a t value of 3.57 ($p < .001$); full-time faculty and coaches ($\bar{M} = 4.09$, $SD = .89$), recording a t value of 2.62 ($p < .01$); full-time faculty and part-time faculty ($\bar{M} = 4.52$, $SD = .68$), with a t value of -3.05 ($p < .001$); GTA's/TA's and part-time faculty, with a t value of -6.23 ($p < .001$); and coaches and part-time faculty, with a t value of -5.69 ($p < .001$) (see Table 6.3). Table 6.4 provides the average \bar{M} and SD of the two instructor age categories across the four faculty groups.

Table 6.2

Means, Results of t-Tests Between the Four Faculty Groups on Students' Ratings of
Instructors 40 Years of Age and Over

	<u>N</u> = 285	<u>N</u> = 81	<u>N</u> = 213	<u>N</u> = 211
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.15	<u>M</u> = 4.21	<u>M</u> = 3.99	<u>M</u> = 4.37
Full-time faculty				
GTA's/TA's	- .69			
Coaches	1.66	3.92***		
Part-time (adjunct) faculty	-2.41*	-2.43*	-5.30***	
Conclusions:	FF = GTA			
	FF = C	GTA > C		
	FF < PT	GTA < PT	C < PT	

*p < .05. **p < .01. ***p < .001.

Table 6.3

Means, Results of t -Tests Between the Four Faculty Groups on Students' Ratings of
Instructors Under 40 Years of Age

	<u>N</u> = 132	<u>N</u> = 659	<u>N</u> = 488	<u>N</u> = 254
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.31	<u>M</u> = 3.89	<u>M</u> = 4.09	<u>M</u> = 4.53
Full-time faculty				
GTA's/TA's	3.57***			
Coaches	2.62**	-1.69		
Part-time (adjunct) faculty	-3.05**	-6.23***	-5.69***	
Conclusions:	FF > GTA			
	FF > C	GTA = C		
	FF < PT	GTA < PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 6.4

Means and Standard Deviations Resulting from Students'
Ratings Concerning Age of Instructor for Four
Faculty Groups

Faculty groups	Instructor age			
	40 or under		Over 40	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Full-time faculty	4.15	.98	4.31	.90
GTA's/TA's	4.21	.91	3.89	1.02
Coaches	3.99	1.00	4.09	.89
Part-time (adjunct) faculty	4.37	.74	4.53	.68
<u>M</u> and <u>SD</u> averages for all faculty groups	4.18	.90	4.20	.87

Part 6--Students' Ratings of Instructors Across
Four Faculty Groups by the Time of Activity

Table 7.1, Analysis of Variance of Faculty Groups Concerning the Time of Activity, revealed a significant F score of 4.80 ($p < .01$) for classes held before 12:00 p.m. For classes held 12:00 p.m. or later, an F score of 11.64 was significant, with a $p < .001$.

Classes held before 12:00 p.m. showed significance between: full-time faculty (M = 4.11, SD = .96) and

Table 7.1
Analysis of Variance of Faculty Groups Concerning the Time of Activity

Time of activity	Sum of squares	<u>DF</u>	Mean square	<u>F</u>	Prob.
Before 12:00 p.m.	115.503	3	38.501	4.80**	.002
12:00 p.m. or later	221.183	3	73.728	11.64***	.000

*p < .05. **p < .01. ***p < .001.

part-time faculty ($\bar{M} = 4.30$, $SD = .77$), with a t value of -1.96 ($p < .05$); GTA's/TA's ($\bar{M} = 4.19$, $SD = .95$) and coaches ($\bar{M} = 4.01$, $SD = .96$), with a t value of 2.81 ($p < .01$); and coaches and part-time faculty, with a t value of -3.41 ($p < .001$) (see Table 7.2). Classes held 12:00 p.m. or later recorded significance between: full-time faculty ($\bar{M} = 4.39$, $SD = .86$) and GTA's/TA's ($\bar{M} = 4.18$, $SD = .90$), with a t value of 2.93 ($p < .01$); full-time faculty and coaches, ($\bar{M} = 4.09$, $SD = 1.02$), with a t value of 2.43 ($p < .05$); GTA's/TA's and part-time faculty ($\bar{M} = 4.52$, $SD = .68$), with a t value of -5.59 ($p < .001$); and coaches and part-time faculty, with a t value of -4.27 ($p < .001$) (see Table 7.3). Table 7.4 provides the average \bar{M} and SD of the two time of activity categories across the four faculty groups.

Part 7--Students' Ratings of Instructors Across
Four Faculty Groups by the Nature of Activity

Table 8.1, Analysis of Variance for Faculty Groups Concerning the Nature of Activity, revealed a significant F score of 16.47 ($p < .001$) for aerobic activities and a significant F score of 8.30 ($p < .001$) for anaerobic activities.

Aerobic activities registered significance between: full-time faculty ($\bar{M} = 4.33$, $SD = .90$) and GTA's/TA's ($\bar{M} = 4.13$, $SD = .99$), with a t value of 2.31 ($p < .05$); full-time faculty and coaches ($\bar{M} = 3.91$, $SD = 1.03$), with a t value of 5.10 ($p < .001$); GTA's/TA's and coaches, recording a t value

Table 7.2

Means, Results of t -Tests Between the Four Faculty Groups on Students' Ratings of Activities Conducted Before 12:00 p.m.

	<u>N</u> = 188	<u>N</u> = 346	<u>N</u> = 631	<u>N</u> = 150
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.11	<u>M</u> = 4.19	<u>M</u> = 4.01	<u>M</u> = 4.30
Full-time faculty				
GTA's/TA's	- .94			
Coaches	1.24	2.81**		
Part-time (adjunct) faculty	-1.96*	-1.23	-3.41***	
Conclusions:	FF = GTA			
	FF = C	GTA > C		
	FF < PT	GTA = PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 7.3

Means, Results of t -Tests Between the Four Faculty Groups on Students' Ratings of Activities Conducted 12:00 p.m. or Later

	<u>N</u> = 226	<u>N</u> = 393	<u>N</u> = 69	<u>N</u> = 314
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.39	<u>M</u> = 4.18	<u>M</u> = 4.09	<u>M</u> = 4.52
Full-time faculty				
GTA's/TA's	2.93**			
Coaches	2.43*	.71		
Part-time (adjunct) faculty	-1.88	-5.59***	-4.27***	
Conclusions:	FF > GTA			
	FF > C	GTA = C		
	FF = PT	GTA < PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 7.4

Means and Standard Deviations Resulting from
Students' Ratings on Time of Activity for
Four Faculty Groups

Faculty groups	Time of activity			
	Before 12:00 p.m.		12:00 p.m. or later	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Full-time faculty	4.11	.96	4.39	.86
GTA's/TA's	4.19	.95	4.18	.90
Coaches	4.01	.96	4.09	1.02
Part-time (adjunct) faculty	4.30	.77	4.52	.68
<u>M</u> and <u>SD</u> averages for all faculty groups	4.15	.91	4.29	.86

of 2.48 ($p < .05$); GTA's/TA's and part-time faculty ($\bar{M} = 4.44$, $SD = .70$), with a t value of -3.80 ($p < .001$); and coaches and part-time faculty, recording a t value of -6.64 ($p < .001$) (see Table 8.2). For anaerobic activities, significance was determined between: full-time faculty ($\bar{M} = 4.12$, $SD = .96$) and part-time faculty ($\bar{M} = 4.46$, $SD = .74$), with a t value of -3.79 ($p < .001$); GTA's/TA's ($\bar{M} = 4.20$, $SD = .89$) and part-time faculty, with a t value of -3.75

Table 8.1
Analysis of Variance of Faculty Groups Concerning the Nature of Activity

Nature of activity	Sum of squares	<u>DF</u>	Mean square	<u>F</u>	Prob.
Aerobic	387.070	3	129.023	16.47***	.000
Anaerobic	172.939	3	57.646	8.30***	.000

*p < .05. **p < .01. ***p < .001.

Table 8.2

Means, Results of t -Tests Between the Four Faculty Groups on Students' Ratings of Aerobic Activities

	<u>N</u> = 267	<u>N</u> = 232	<u>N</u> = 316	<u>N</u> = 231
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.33	<u>M</u> = 4.13	<u>M</u> = 3.91	<u>M</u> = 4.44
Full-time faculty				
GTA's/TA's	2.31*			
Coaches	5.10***	2.48*		
Part-time (adjunct) faculty	-1.47	-3.80***	-6.64***	
Conclusions:	FF > GTA			
	FF > C	GTA > C		
	FF = PT	GTA < PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

($p < .001$); and coaches ($M = 4.11$, $SD = .91$) and part-time faculty, with a t value of -4.83 ($p < .001$) (see Table 8.3). Table 8.4 provides the average M and SD of the two nature of activity categories across the four faculty groups.

Part 8--Students' Ratings of Instructors Across
Four Faculty Groups by Size of Class

Table 9.1, Analysis of Variance of Faculty Groups Concerning the Size of Class, indicated a significant F score of 21.89 ($p < .001$) for classes with more than 15 students and a nonsignificant F score of 2.55 ($p < .055$) for classes with 15 students or less.

Classes with more than 15 students posted a significance between: full-time faculty ($M = 4.32$, $SD = .89$) and GTA's/TA's ($M = 4.19$, $SD = .91$), with a t value of 1.98 ($p < .05$); full-time faculty and coaches ($M = 4.00$, $SD = .98$), with a t value of 4.75 ($p < .001$); full-time faculty and part-time faculty ($M = 4.50$, $SD = .68$), with a t value of -2.84 ($p < .01$); GTA's/TA's and coaches, with a t value of 3.45 ($p < .001$); GTA's/TA's and part-time faculty, with a t value of -5.23 ($p < .001$); and coaches and part-time faculty, with a t value of -8.02 ($p < .001$) (see Table 9.2). Classes with less than 15 students recorded no significant differences between faculty groups, although it came very close ($p < .055$). Table 9.3 provides the average M and SD of the two size of class categories across the four faculty groups.

Table 8.3
Means, Results of t -Tests Between the Four Faculty Groups on Students' Ratings of
Anaerobic Activities

	<u>N</u> = 148	<u>N</u> = 507	<u>N</u> = 379	<u>N</u> = 233
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.12	<u>M</u> = 4.20	<u>M</u> = 4.11	<u>M</u> = 4.46
Full-time faculty				
GTA's/TA's	- .95			
Coaches	.11	1.48		
Part-time (adjunct) faculty	-3.79***	-3.75***	-4.83***	
Conclusions:	FF = GTA			
	FF = C	GTA = C		
	FF < PT	GTA < PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 8.4

Means and Standard Deviations Resulting from Students'
Ratings on Nature of Activities for
Four Faculty Groups

Faculty groups	Nature of activity			
	Aerobic		Anaerobic	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Full-time faculty	4.33	.90	4.12	.96
GTA's/TA's	4.13	.99	4.20	.89
Coaches	3.91	1.03	4.11	.91
Part-time (adjunct) faculty	4.44	.70	4.46	.74
<u>M</u> and <u>SD</u> averages for all faculty groups	4.20	.90	4.22	.87

Part 9--Students' Ratings of Instructors Across
Four Faculty Groups by the Classification
of the Student

Table 10.1, Analysis of Variance of Faculty Groups Concerning Classification of Student, revealed a significant F score of 10.84 ($p < .001$) for freshmen, a nonsignificant F score of 2.59 for sophomores, a significant F score of 3.90 ($p < .01$) for juniors, and a significant F score of 5.43 ($p < .001$) for seniors.

Table 9.1
Analysis of Variance of Faculty Groups Concerning the Size of Class

Class size	Sum of squares	<u>DF</u>	Mean square	<u>F</u>	Prob.
More than 15	477.702	3	159.234	21.89***	.000
15 or less	58.041	3	19.347	2.55	.055

*p < .05. **p < .01. ***p < .001.

Table 9.2

Means, Results of t -Tests Between the Four Faculty Groups on Students' Ratings of
Classes With More Than 15 Students

	<u>N</u> = 320	<u>N</u> = 595	<u>N</u> = 554	<u>N</u> = 325
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.32	<u>M</u> = 4.19	<u>M</u> = 4.00	<u>M</u> = 4.50
Full-time faculty				
GTA's/TA's	1.98*			
Coaches	4.75***	3.45***		
Part-time (adjunct) faculty	-2.84**	-5.23***	-8.02***	
Conclusions:	FF > GTA			
	FF > C	GTA > C		
	FF < PT	GTA < PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 9.3

Means and Standard Deviations Resulting from
Students' Ratings on Size of Class for
Four Faculty Groups

Faculty groups	Size of class			
	More than 15 students		15 students or less	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Full-time faculty	4.32	.89	4.08	1.00
GTA's/TA's	4.19	.91	4.07	.97
Coaches	4.00	.98	4.04	.94
Part-time (adjunct) faculty	4.50	.68	4.32	.78
<u>M</u> and <u>SD</u> averages for all faculty groups	4.25	.86	4.12	.92

Students with the rank of freshman recorded significance between: full-time faculty (M = 4.37, SD = .91) and GTA's/TA's (M = 4.19, SD = .92), with a t value of 2.20 (p < .05); full-time faculty and coaches (M = 4.04, SD = .94), with a t value of 3.94 (p < .001); GTA's/TA's and coaches, with a t value of 2.09 (p < .05); GTA's/TA's and part-time faculty (M = 4.43, SD = .74), with a t value of -3.24 (p < .01); and coaches and part-time

Table 10.1
Analysis of Variance of Faculty Groups Concerning Classification of Student

Rank of student	Sum of squares	<u>DF</u>	Mean square	<u>F</u>	Prob.
Freshman	236.712	3	78.904	10.84***	.000
Sophomore	61.491	3	20.497	2.59	.052
Junior	84.868	3	28.289	3.90**	.009
Senior	119.346	3	39.782	5.43***	.001

*p < .05. **p < .01. ***p < .001.

faculty, with a t value of -5.08 ($p < .001$) (see Table 10.2). Sophomore students recorded no significant differences between faculty groups. Students with the rank of junior posted significant differences between: full-time faculty ($M = 4.12$, $SD = .90$) and part-time faculty ($M = 4.49$, $SD = .79$), with a t value of -2.58 ($p < .01$); GTA's/TA's ($M = 4.21$, $SD = .91$) and part-time faculty, with a t value of -2.09 ($p < .01$); and coaches ($M = 4.00$, $SD = .95$) and part-time faculty, with a t value of -3.39 ($p < .001$) (see Table 10.2). Students with the rank of senior registered significant differences between: full-time faculty ($M = 4.20$, $SD = .89$) and part-time faculty ($M = 4.46$, $SD = .67$), with a t value of -2.16 ($p < .05$); GTA's/TA's ($M = 4.16$, $SD = .95$) and part-time faculty, with a t value of -2.90 ($p < .01$); and coaches ($M = 3.93$, $SD = .99$) and part-time faculty, with a t value of -4.30 ($p < .001$) (see Tables 10.3-10.5).

Part 10--Students' Ratings of Instructors Across
Four Faculty Groups by Student
Expected Grade

Table 11.1, Analysis of Variance of Faculty Groups Concerning Students' Expected Grade, revealed a significant F score of 18.41 ($p < .001$) for students expecting a letter grade of A, a significant F score of 4.38 ($p < .01$) for students expecting a letter grade of B, and a nonsignificant F score of $.656$ ($p < .590$) for students expecting a letter

Table 10.2

Means, Results of t -Tests Between the Four Faculty Groups on Freshman Students

	<u>N</u> = 196	<u>N</u> = 356	<u>N</u> = 395	<u>N</u> = 204
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.37	<u>M</u> = 4.19	<u>M</u> = 4.04	<u>M</u> = 4.37
Full-time faculty				
GTA's/TA's	2.20*			
Coaches	3.94***	2.09*		
Part-time (adjunct) faculty	- .78	-3.24**	-5.08***	
Conclusions:	FF > GTA			
	FF > C	GTA > C		
	FF = PT	GTA < PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 10.3

Means, Results of t -Tests Between the Four Faculty Groups on Junior Students

	<u>N</u> = 72	<u>N</u> = 97	<u>N</u> = 72	<u>N</u> = 72
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.12	<u>M</u> = 4.21	<u>M</u> = 4.00	<u>M</u> = 4.49
Full-time faculty				
GTA's/TA's	- .59			
Coaches	.84	-1.47		
Part-time (adjunct) faculty	-2.58**	-2.09**	-3.39***	
Conclusions:	FF = GTA			
	FF = C	GTA = C		
	FF < PT	GTA < PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 10.4
Means, Results of t -Tests Between the Four Faculty Groups on Senior Students

	<u>N</u> = 70	<u>N</u> = 131	<u>N</u> = 98	<u>N</u> = 92
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.20	<u>M</u> = 4.16	<u>M</u> = 3.93	<u>M</u> = 4.46
Full-time faculty				
GTA's/TA's	.51			
Coaches	1.79	1.52		
Part-time (adjunct) faculty	-2.16*	-2.90**	-4.30***	
Conclusions:	FF = GTA			
	FF = C	GTA = C		
	FF < PT	GTA < PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 10.5
Means and Standard Deviations Resulting from Students' Ratings of
of the Course for Four Faculty Groups

Faculty groups	Student rank							
	Freshman		Sophomore		Junior		Senior	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Full-time faculty	4.37	.91	4.10	1.01	4.12	.90	4.20	.89
GTA's/TA's	4.19	.92	4.16	.93	4.21	.91	4.16	.95
Coaches	4.04	.94	4.07	1.02	4.00	.95	3.93	.99
Part-time (adjunct) faculty	4.43	.74	4.40	.67	4.49	.79	4.46	.67
<u>M</u> and <u>SD</u> averages for all faculty groups	4.25	.87	4.18	.90	4.20	.88	4.18	.87

Table 11.1
Analysis of Variance of Faculty Groups Concerning Students' Expected Grade

Student expected grade	Sum of squares	<u>DF</u>	Mean square	<u>F</u>	Prob.
A	386.410	3	128.803	18.41***	.000
B	114.404	3	38.135	4.38**	.005
C	27.086	3	9.029	.656	.590
D	no responses				
F	no responses				

*p < .05. **p < .01. ***p < .001.

Table 11.1
Analysis of Variance of Faculty Groups Concerning Students' Expected Grade

Student expected grade	Sum of squares	<u>DF</u>	Mean square	<u>F</u>	Prob.
A	386.410	3	128.803	18.41***	.000
B	114.404	3	38.135	4.38**	.005
C	27.086	3	9.029	.656	.590
D	no responses				
F	no responses				

*p < .05. **p < .01. ***p < .001.

grade of C. No students listed expecting a letter grade of D or F.

Students expecting a letter grade of A recorded significance between: full-time faculty ($\bar{M} = 4.31$, $SD = .91$) and coaches ($\bar{M} = 4.07$, $SD = .93$), with a t value of 3.86 ($p < .001$); full-time faculty and part-time faculty ($\bar{M} = 4.48$, $SD = .70$), with a t value of -2.88 ($p < .01$); GTA's/TA's ($\bar{M} = 4.23$, $SD = .90$) and coaches, with a t value of 3.13 ($p < .01$); GTA's/TA's and part-time faculty, with a t value of -4.71 ($p < .001$); and coaches and part-time faculty, with a t value of -7.50 ($p < .001$) (see Table 11.2). Students expecting a letter grade of B showed significance between: full-time faculty ($\bar{M} = 4.02$, $SD = .98$) and coaches ($\bar{M} = 3.63$, $SD = 1.18$), with a t value of 2.06 ($p < .05$); GTA's/TA's ($\bar{M} = 3.84$, $SD = .96$) and part-time faculty ($\bar{M} = 4.25$, $SD = .78$), with a t value of -2.81 ($p < .01$); and coaches and part-time faculty, with a t value of -3.56 ($p < .001$) (see Tables 11.3 and 11.4). No significant differences were found between faculty groups by students expecting a letter grade of C.

Part 11--Students' Ratings of Instructors Across Four Faculty Groups by Student Age

Analysis of Variance Resulting from Students' Ratings Concerning Age Category for Four Faculty Groups in Table 12.1 revealed a significant F score for students: 18-19 years of age, $F = 15.05$ ($p < .001$); 20-21 years of age, $F = 4.91$ ($p < .01$); and 22-23 years of age, $F = 5.59$

Table 11.2

Means, Results of t -Tests Between the Four Faculty Groups on Students Expecting a Grade of A

	<u>N</u> = 344	<u>N</u> = 656	<u>N</u> = 631	<u>N</u> = 393
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.31	<u>M</u> = 4.23	<u>M</u> = 4.07	<u>M</u> = 4.48
Full-time faculty				
GTA's/TA's	1.31			
Coaches	3.86***	3.13**		
Part-time (adjunct) faculty	-2.88**	-4.71***	-7.50***	
Conclusions:	FF = GTA			
	FF > C	GTA > C		
	FF < PT	GTA < PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 11.3

Means, Results of t -Tests Between the Four Faculty Groups on Students Expecting a Grade of B

	<u>N</u> = 69	<u>N</u> = 77	<u>N</u> = 62	<u>N</u> = 69
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.02	<u>M</u> = 3.84	<u>M</u> = 3.63	<u>M</u> = 4.25
Full-time faculty				
GTA's/TA's	1.12			
Coaches	2.06*	1.15		
Part-time (adjunct) faculty	-1.53	-2.81**	-3.56***	
Conclusions:	FF = GTA			
	FF > C	GTA = C		
	FF = PT	GTA < PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 11.4

Means and Standard Deviations Resulting From
Students' Ratings of Students' Expected Grade
for Four Faculty Groups

Faculty groups	Student expected grade					
	A		B		C	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Full-time faculty	4.31	.91	4.02	.98	3.68	1.26
GTA's/TA's	4.23	.90	3.84	.96	3.04	1.40
Coaches	4.07	.93	3.63	1.18	3.55	1.20
Part-time (adjunct) faculty	4.48	.70	4.25	.78	4.11	.50
<u>M</u> and <u>SD</u> averages for all faculty groups	4.27	.86	3.93	.97	3.59	1.09

($p < .001$). A nonsignificant F score of 1.71 ($p < .170$) was recorded for students 24-25 years of age. Students over 25 years of age registered a significant F score of 2.72 ($p < .05$).

Statistical analysis for students 18-19 years of age indicated significance between: full-time faculty ($M = 4.40$, $SD = .84$) and GTA's/TA's ($M = 4.15$, $SD = .91$), with a t value of 3.05 ($p < .001$); full-time faculty and coaches

Table 12.1
Analysis of Variance Resulting from Students' Ratings Concerning Age Category
For Four Faculty Groups

Age of student	Sum of squares	<u>DF</u>	Mean square	<u>F</u>	Prob.
18-19	317.393	3	105.798	15.05***	.000
20-21	119.589	3	39.863	4.91**	.002
22-23	100.495	3	33.498	5.59***	.001
24-25	37.753	3	12.584	1.71	.170
Over 25	68.758	3	22.919	2.72*	.045

*p < .05. **p < .01. ***p < .001.

($\bar{M} = 4.03$, $SD = .96$), with a t value of 4.42 ($p < .001$); GTA's/TA's and part-time faculty ($\bar{M} = 4.49$, $SD = .71$), with a t value of -4.39 ($p < .001$); and coaches and part-time faculty, with a t value of -5.76 ($p < .001$) (see Table 12.2). Students 20-21 years of age demonstrated significance between: full-time faculty ($\bar{M} = 3.98$, $SD = 1.06$) and part-time faculty ($\bar{M} = 4.30$, $SD = .77$), with a t value of -2.81 ($p < .01$); GTA's/TA's ($\bar{M} = 4.19$, $SD = .94$) and coaches ($\bar{M} = 3.96$, $SD = 1.00$), with a t value of 2.15 ($p < .05$); and coaches and part-time faculty, with a t value of -3.24 ($p < .01$) (see Table 12.3). Students 22-23 years of age registered significance between: GTA's/TA's ($\bar{M} = 4.12$, $SD = .95$) and part-time faculty ($\bar{M} = 4.52$, $SD = .61$), with a t value of -3.22 ($p < .01$); and coaches ($\bar{M} = 4.04$, $SD = .81$) and part-time faculty, with a t value of -4.14 ($p < .001$) (see Table 12.4). No significant differences were found between faculty groups rated by students that were 24-25 years of age. Students over 25 years of age posted significance between only faculty subgroups, coaches ($\bar{M} = 4.07$, $SD = .93$) and part-time faculty ($\bar{M} = 4.58$, $SD = .74$), registering a t value of -2.76 ($p < .01$) (see Tables 12.5 and 12.6).

Table 12.2

Means, Results of t -Tests Between the Four Faculty Groups by Students 18-19 Years of Age

	<u>N</u> = 189	<u>N</u> = 333	<u>N</u> = 354	<u>N</u> = 187
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.40	<u>M</u> = 4.15	<u>M</u> = 4.03	<u>M</u> = 4.49
Full-time faculty				
GTA's/TA's	3.05**			
Coaches	4.42***	1.68		
Part-time (adjunct) faculty	-1.13	-4.39***	-5.76***	
Conclusions:	FF > GTA			
	FF > C	GTA = C		
	FF = PT	GTA < PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 12.3

Means, Results of t-Tests Between the Four Faculty Groups by Students 20-21 Years of Age

	<u>N</u> = 111	<u>N</u> = 197	<u>N</u> = 162	<u>N</u> = 138
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 3.98	<u>M</u> = 4.19	<u>M</u> = 3.96	<u>M</u> = 4.30
Full-time faculty				
GTA's/TA's	-1.79			
Coaches	.10	2.15*		
Part-time (adjunct) faculty	-2.81**	-1.21	-3.24**	
Conclusions:	FF = GTA			
	FF = C	GTA > C		
	FF < PT	GTA = PT	C < PT	

*p < .05. **p < .01. ***p < .001.

Table 12.4

Means, Results of t -Tests Between the Four Faculty Groups by Students 22-23 Years of Age

	<u>N</u> = 57	<u>N</u> = 97	<u>N</u> = 79	<u>N</u> = 76
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.31	<u>M</u> = 4.12	<u>M</u> = 4.04	<u>M</u> = 4.52
Full-time faculty				
GTA's/TA's	1.31			
Coaches	1.93	.55		
Part-time (adjunct) faculty	-1.73	-3.22**	-4.14***	
Conclusions:	FF = GTA			
	FF = C	GTA = C		
	FF = PT	GTA < PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 12.5

Means, Results of t -Tests Between the Four Faculty Groups by Students Over 25 Years of Age

	<u>N</u> = 43	<u>N</u> = 82	<u>N</u> = 78	<u>N</u> = 47
	Full-time faculty	GTA's/TA's	Coaches	Part-time (adjunct) faculty
Faculty groups	<u>M</u> = 4.43	<u>M</u> = 4.28	<u>M</u> = 4.07	<u>M</u> = 4.58
Full-time faculty				
GTA's/TA's	.88			
Coaches	1.54	1.25		
Part-time (adjunct) faculty	- .84	-1.90	-2.76**	
Conclusions:	FF = GTA			
	FF = C	GTA = C		
	FF = PT	GTA = PT	C < PT	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 12.6
Means and Standard Deviations Resulting from Students' Ratings of the Course
for Four Faculty Groups

Faculty rank	Student age groupings									
	18-19		20-21		22-23		24-25		Over 25	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Full-time faculty	4.40	.84	3.98	1.06	4.31	.78	3.81	.95	4.43	.91
GTA's/TA's	4.15	.91	4.19	.94	4.12	.95	4.35	.92	4.28	.93
Coaches	4.03	.96	3.96	1.00	4.04	.81	4.09	.93	4.07	1.10
Part-time (adjunct) faculty	4.49	.71	4.30	.77	4.52	.61	4.38	.75	4.58	.74
<u>M</u> and <u>SD</u> totals	4.26	.85	4.10	.94	4.24	.78	4.15	.88	4.34	.92

CHAPTER 5

Summary, Discussion, Conclusions, and Recommendations

The primary purpose of the study was to determine the perceived teaching effectiveness of full-time faculty, graduate teaching assistants, coaches, and part-time (adjunct) faculty at five selected universities in Tennessee as measured by student evaluation. Student participants ($N = 2,457$), enrolled in physical education activity classes, evaluated instructors using the Instructional Development and Effectiveness Assessment (IDEA) Survey produced by Kansas State University. The IDEA survey instrument included a number of items which loaded on seven teaching variables (see Table 1.2). Analysis of variance (ANOVA) was used to determine statistical significance between faculty groups and IDEA survey items. The .05 level of confidence was selected to determine statistical significance. Following significant F scores, t -tests were used to locate where the significance between faculty groups existed. The study was conducted during the 1992 spring semester.

Comparisons of faculty groups with demographic variables were secondary objectives for the study. Similar statistical procedures were used for these comparisons. Demographic comparisons included students' ratings of instructors' and students' gender, time of day for activity,

ages of instructors, ages of students, whether activity was aerobic or anaerobic, class sizes, students' academic rank, and students' expected grades. Eleven null hypotheses were tested statistically, utilizing ANOVA and t-tests.

Hypotheses were then accepted or rejected based upon the results.

This chapter will be divided into two parts. Part 1 will summarize the results of the study and relate findings to literature review and the 11 null hypotheses. Part 2 will list recommendations and implications for future studies.

Part 1--Summary of Results of Findings with
Relationships to the Literature Review
and Null Hypothesis

Hypothesis 1

There will be no significant differences between full-time faculty, graduate teaching assistants, coaches, and part-time (adjunct) faculty as determined by student evaluations (rejected).

Findings. Statistical significance between faculty groups occurred in six of the seven teaching variables (see Tables 2.1-2.8). Results indicated that part-time faculty members recorded the highest cumulative mean (\bar{M} = 4.22) of the four faculty groups and had the highest evaluation scores on four of the seven teaching variables. This was in contrast with Cruise et al. (1980) who discovered that full-time faculty members rated the highest when evaluated in

training of part-time instructors needs to be a top priority, yet this study infers that, for physical education activity classes, part-time instructors often communicate most successfully with students, lead students to the highest degree of students' subject mastery, give the students the highest positive feelings of discipline, and receive the highest rating. Full-time faculty members obtained the highest ratings on instructor involvement with students, instructor enthusiasm with class and students, and instructor evaluation methods. Graduate teaching assistants and coaches had the lowest overall scores, yet fared well overall on the Likert scale (\bar{M} = 4.07 and (\bar{M} = 3.90, respectively), demonstrating effective instruction and student satisfaction.

Conclusions/Discussion. Part-time faculty were viewed by students as the most efficacious instructors. This may not be a surprise to some since part-time physical educators are usually experts in their discipline. If part-time faculty are called upon to teach classes where expertise is not present or there is an additional need in the department, this study shows they respond well to the responsibility. Full-time faculty members are also evaluated highly (\bar{M} = 4.12). Many would expect this since they usually possess more advanced degrees and more years of experience and are more active in professional organizations (Cohen & Brawer, 1991). Graduate teaching assistants also

performed well. Their overall mean score of 4.07 demonstrates that they provide a positive service to the department at a bargain rate, while working toward a degree. Coaches also performed well, even though they were generally evaluated the lowest. Their total mean score of 3.90 suggests that additional training (workshops/seminars) may be needed in areas of instructional methodology and student-teacher interaction. However, this could be rectified only if the coaches showed a willingness for further training. Many will assume that coaches are or could be good instructors, but focus most of their time and skills on their coaching responsibilities. It may be time to consider moving the coach out of the classroom and filling these positions with more part-time teachers or graduate teaching assistants because it appears that they can provide quality instruction for substantially less money.

Hypothesis 2

There will be no significant differences between ratings by male and female students given to male instructors across four faculty groups (rejected).

Findings. The results indicate significant differences exist between male students' ratings of male faculty groups on all seven teaching variables. Significant F scores were seen concerning instructor involvement with students ($p < .001$), instructor communication with students ($p < .001$), instructor enthusiasm with class and students

($p < .01$), instructor evaluation methods ($p < .05$), student subject mastery ($p < .001$), student attitudes concerning physical education activity classes, ($p < .001$), and student rating of the course ($p < .001$). Female students registered significant differences in their responses to the four faculty groups taught by males on four of the seven teaching variables with probabilities ranging from $p < .01$ to $p < .001$) (see Table 3.1). Male students rated male part-time faculty members highest on instructor involvement with students, instructor enthusiasm with class and students, student subject mastery, and general student rating of the course. The graduate teaching assistants scored the highest marks on instructor communication with students, instructor enthusiasm with class and students (score equal to part-time faculty), and instructor evaluation methods. Coaches received the highest marks on student attitudes concerning physical education activity classes, (see Tables 3.2-3.8). Females rated part-time faculty highest on all teaching variables, except instructor evaluation methods where the graduate teaching assistants scored the highest mark (see Tables 3.9-3.15).

Differences between the ratings of male and female students of male instructors are evident. Female students' ratings of each male faculty group were higher than those of male students (see Table 3.19). This seems to indicate that

student gender does not affect the evaluation scores of male instructors teaching physical education activity classes.

Conclusions/Discussion. Disparities occurred across the four faculty groups when evaluating male instructors on all seven teaching variables when rated by male students. For female students evaluating male instructors, significant differences were found on four of seven teaching variables. Comparisons between the total mean scores of male students' ratings ($\bar{M} = 3.91$) and female students' ratings ($\bar{M} = 4.10$) clearly demonstrate that females are not biased toward male instructors teaching physical education activity classes. Table 3.19 illustrates that females rated male instructors higher in all four faculty groups.

Hypothesis 3

There will be no significant differences in ratings by male and female students given to female instructors across the four faculty groups (rejected).

Findings. Significant F scores were found between faculty groups rated by male students of female instructors in instructor involvement with students ($p < .01$), instructor communication with students ($p < .05$), instructor enthusiasm with class and students ($p < .001$), and instructor evaluation methods ($p < .01$). Female students' ratings of female instructor groups revealed significant F scores on the teaching variables, instructor involvement with students ($p < .01$), instructor enthusiasm with class

and students ($p < .01$), student attitudes concerning physical education activity classes, ($p < .001$), and student rating of the course ($p < .001$). Male students rated female full-time faculty members highest on instructor communication with students, instructor evaluation methods, and student rating of the course. Female part-time faculty were rated highest by male students on instructor involvement with students, instructor enthusiasm with class and students, and student attitudes concerning physical education activity classes. Female coaches received the highest scores from male students in the instructional area of student subject mastery. Female students rated female full-time faculty members highest in instructor communication with students, student subject mastery, and student attitudes concerning physical education activity classes. Female part-time faculty members received the highest marks from female students in instructor involvement with students, instructor enthusiasm with class and students, and student rating of the course. Moreover, female graduate teaching assistants scored highest marks in instructor evaluation methods (see Tables 4.9-4.17). Total mean scores showed that female students ranked female instructors highest in every faculty group.

Conclusions/Discussion. Male and female students showed significant differences between the four faculty groups on four of the seven teaching variables. The total

mean scores (see Table 4.15) showed that females rated female instructors higher in every faculty group, reflecting a bias in their ratings, yet female students also rated male instructors highest in every teaching group. This shows that female students will generally rate instructors, either male or female, higher than male students in physical education activity classes. This suggests that instructors' gender-type might affect the evaluation scores of faculty members, supporting the study by Basow and Howe (1987) who stated that instructor gender would affect evaluation scores. The differences, however, were small, as seen in this study. Results of this study contradict Basow and Silberg (1987) who observed that female instructors were rated lower. Their concept was that women received lower evaluations compared to men because students felt they did not fit gender stereotypes. According to this study, females generally receive the higher evaluation scores. This seems to imply that students did not carry a bias in teacher evaluations, tending rather to reward teacher effectiveness and competency.

Hypothesis 4

There will be no significant differences between ratings by students of instructors teaching individual/dual activities, team games activities, and dance/rhythms activities across the four faculty groups (rejected).

Findings. The type of activity did have a significant effect on student evaluations of faculty groups in individual/dual activities ($p < .001$) and dance/rhythms activities ($p < .01$) (see Tables 5.2-5.3). Team games activities showed no significant differences in students' ratings between faculty groups, F score 2.21. Total mean scores show that all students rate dance/rhythms activities ($M = 4.45$) higher in comparison to individual/dual activities ($M = 4.16$), and team games activities ($M = 4.12$), respectively. Faculty group did not have a bearing on the mean evaluation scores of students. Dance/rhythms activities received the highest score, regardless of who was the instructor ($M = 4.45$). It was also noted that for this study none of the coaches taught in the dance/rhythms category.

Conclusions/Discussion. Part-time faculty members again received the highest rating in each category, except for dance/rhythms where full-time faculty received the highest mean score ($M = 4.58$). We can therefore infer that the nature of the activity may accurately correspond to the disparity of rating scores (see Table 5.4). Dance/rhythms activities generally require a high level of competence before one assumes that type of responsibility in the classroom. Department chairmen, for liability reasons, should not place unqualified faculty in these kinds of classrooms. This level of expertise required may also be

the reason for such a high mean score ($\bar{M} = 4.45$) for all instructors teaching dance/rhythms activities, compared to individual/dual activities ($\bar{M} = 4.16$) and team games activities ($\bar{M} = 4.12$).

Hypothesis 5

There will be no significant differences between ratings by students of the faculty teaching in one of the four faculty groups who are 40 years of age or under and those instructors who are over 40 years of age (rejected).

Findings. Significant F scores were found between faculty groups in both age categories ($p < .001$). Part-time faculty scored the highest mean for instructors 40 years of age or older ($\bar{M} = 4.37$), while graduate teaching assistants scored second highest ($\bar{M} = 4.21$). Part-time instructors 40 years or under also received the highest student evaluations ($\bar{M} = 4.37$), with graduate teaching assistants 40 years or under recording the second highest rating ($\bar{M} = 4.21$). Overall evaluation scores showed that older faculty members ($\bar{M} = 4.20$) were evaluated higher than faculty members 40 years or under ($\bar{M} = 4.18$), but the difference was minimal and nonsignificant.

Conclusions/Discussion. Total mean scores ($\bar{M} = 4.18$ and $\bar{M} = 4.20$) of both age categories have little disparity (see Table 6.4), suggesting the age of the instructor does not seem to affect how students perceive instructional methodology and performance.

Hypothesis 6

There will be no significant differences between ratings by students of the faculty teaching in one of the four faculty groups teaching classes that meet before 12:00 p.m. and 12:00 p.m. or later (rejected).

Findings. The ANOVA revealed significant difference occurred between the evaluation scores of faculty groups teaching classes before 12:00 p.m. ($p < .01$) and instructors teaching classes 12:00 p.m. or later ($p < .001$). For classes held before 12:00 p.m., part-time instructors received the highest rating ($M = 4.20$). They also received the highest rating for classes held 12:00 p.m. or later ($M = 4.20$). Overall mean scores showed that students rated instructors higher for classes held 12:00 p.m. or later ($M = 4.29$), in contrast to classes conducted before 12:00 p.m. ($M = 4.15$).

Conclusions/Discussion. Comparisons made between mean scores of classes conducted before 12:00 p.m. ($M = 4.15$) and classes held 12:00 p.m. or later ($M = 4.29$) imply that students prefer physical education activity classes that are scheduled later in the day, suggesting that department chairmen may want to schedule more activity classes 12:00 p.m. or later.

Hypothesis 7

There will be no significant differences between ratings by students of the faculty teaching in one of the

four faculty groups teaching aerobic and anaerobic classes (rejected).

Findings. Faculty groups registered significance for aerobic activities ($p < .001$) and for anaerobic activities ($p < .001$). Part-time instructors received the highest scores for both aerobic classes ($M = 4.44$) and anaerobic classes ($M = 4.22$) (see Table 8.4).

Conclusions/Discussion. Comparisons between the evaluation scores of aerobic and anaerobic activities reveal a very small difference in the total mean score across all instructional groups (aerobic, $M = 4.20$; anaerobic, $M = 4.22$). This suggests that the nature of the activity might not affect the evaluation scores of instructors. Students appear to be equally satisfied with both types of activities.

Hypothesis 8

There will be no significant differences between ratings by students between faculty teaching in one of the four faculty groups teaching classes with 15 students or less and those teaching classes with more than 15 students (rejected).

Findings. Faculty groups teaching classes with more than 15 students recorded an F score of 21.89 ($p < .001$). Classes with 15 students or less scored an F value of 2.55 which barely failed to indicate significance ($p < .055$). The mean scores of part-time instructors ($M = 4.50$)

conducting classes with more than 15 students recorded as the highest ratings, while coaches scored a total mean of 4.00. Overall student ratings indicate that for physical education activity classes, students rate instructors higher in larger classes than those in smaller ones (see Table 9.3).

Conclusions/Discussion. Students rated part-time faculty significantly higher than their counterparts for both class sizes. Overall mean scores suggest students prefer physical education activity classes with more than 15 students. Full-time faculty, part-time faculty, and graduate teaching assistants all received higher evaluation scores from the larger classes (see Table 9.3). Coaches were the only faculty group who received higher evaluation scores from classes with less than 15 students. These results may be attributed to the demand for attention and personal instruction anticipated from smaller classes. Students, however, may not put the same type of demands on instructors teaching larger classes so their evaluations are more generous. These results are supported by one-third of the nearly 30 studies uncovered by Feldman's (1978) meta-analysis, yet counter the more recent study by Shapiro (1990) in which he concluded that smaller classes recorded significantly higher evaluation scores than those in larger classes.

Hypothesis 9

There will be no significant differences between ratings by students of the faculty teaching in one of the four faculty groups by students classified as freshmen, sophomores, juniors, or seniors (rejected).

Findings. The ANOVA revealed significant differences were recorded between faculty groups by freshmen ($p < .001$), juniors ($p < .01$), and seniors ($p < .001$). Freshmen rated part-time faculty the highest ($M = 4.43$) and full-time faculty the second highest ($M = 4.37$). Sophomores rated part-time faculty slightly lower than freshmen, but still awarded this faculty group with the highest rating ($M = 4.40$). Juniors and seniors also rated part-time faculty the highest ($M = 4.49$ and $M = 4.46$). The largest disparity of scores was given by freshmen, with an F score of 10.84 ($p < .001$). Sophomores gave the most consistent scores across the four faculty groups, with an F score of 2.59. Total mean scores showed that freshmen and seniors issued the highest rating for all instructors (see Table 10.5).

Conclusions/Discussion. Significant differences occurred between faculty groups and student groups in three out of the four academic ranks. Total mean scores (see Table 10.5) for each student rank, nevertheless, do not indicate that a correlation exists between students' rank and faculty evaluations. The disparity in mean scores had a minimal range of 4.26 to 4.18, suggesting that seniors seem

to not expect more from the class than first-semester freshmen.

Hypothesis 10

There will be no significant differences between the expected grade of the rater and the overall rating of the ratee concerning faculty teaching in one of the four faculty groups (rejected).

Findings. Across the four faculty groups, significant differences were found between the ratings of students anticipating a letter grade of A ($p < .001$) and a letter grade of B ($p < .01$) (see Table 11.1). Part-time faculty received the highest evaluation scores from all students expecting letter grades A through C; no students expected letter grades D through F.

Conclusions/Discussion. The mean results indicate that anticipated letter grades influence student evaluation of faculty. If the student perceived a low letter grade, the evaluation scores were lower, regardless of the faculty group (see Table 11.4). These results support the study conducted by Hamilton (1980) who concluded that grade anticipation is a predictor of student evaluations and Marlin and Gaynor's (1989) study in which they observed that some correlation between expected grade and teacher evaluation exists. But studies by DeCanio (1986) and Osunde (1986) disagree, concluding instead that grade anticipation had no relationship with teacher evaluation.

Hypothesis 11

There will be no significant differences between ratings by students as a result of their age when evaluating faculty teaching in one of the four faculty groups (rejected).

Findings. ANOVA revealed statistical differences between faculty groups for raters 18-19 years of age ($p < .001$), raters 20-21 years of age ($p < .01$), raters 22-23 years of age ($p < .001$), and raters over 25 years of age ($p < .05$). Each rater's age category evaluated part-time faculty members highest with mean scores of 4.26 (18-19), 4.30 (20-21), 4.52 (22-23), 4.38 (24-25), and 4.58 (over 25). Students over the age of 25 scored all faculty members highest on average in every instructional group with an average mean ($\bar{M} = 4.34$). The youngest student age group was second with a mean total ($\bar{M} = 4.26$). The disparity between the age groupings of raters is not that large, with the highest mean from students over 25 ($\bar{M} = 4.34$) and the lowest mean ($\bar{M} = 4.15$) for raters' 24-25 years of age (see Table 12.6).

Conclusions/Discussion. Significant differences between the ratings of faculty groups by age of rater revealed significant differences in four of the five student-age groupings. The high ratings given by the non-traditional students over 25 years of age is a positive sign for faculty members who will be asked to teach this

population more and more in the future. The range of mean scores across student-age groupings is inconsistent (see Table 12.6), suggesting that the age of student raters seems to not be a major factor in the evaluation of instructors of physical education activity classes.

Part 2--Recommendations and Implications Related
to Student Evaluations of Physical Education
Instructors Teaching Physical Education
Activity Classes

The following recommendations and implications are given, based on the results of this investigation:

1. Physical educators need to develop a specific evaluation form especially designed to measure teacher effectiveness in physical education activity classes since the nature of the class calls for a separate type of evaluation instrument.
2. Chairpersons of physical education departments must encourage institutions of higher education to mandate a physical education requirement. The results of this study suggest that students attending activity classes rate all kinds of instructors to be effective and perceive these classes to be beneficial in their curriculum.
3. Part-time faculty seem to enhance rather than hinder the department in the area of quality of instruction and student learning. The results from this study indicated that students felt this group was most effective.

4. The results of this study indicate that coaches are consistently rated the lowest across every teaching variable in almost every faculty category. This study, therefore, advocates encouraging coaches to accept more personal responsibility for their effectiveness in the classroom in order to benefit students attending their classes. Classes taught by coaches are entitled to receive the best available instruction.

5. The results indicate that student rank or age will have no bearing on how instructors are evaluated, indicating that administrators can use student evaluations as a valuable tool to determine promotion, tenure, and salary advancement for faculty members teaching physical education activity classes.

6. Continued use of graduate teaching assistants as an academic instructional option will not compromise the reputations of a physical education department. Rather, they provide a valuable service to institutions of higher education, while receiving incalculable, practical experience applicable to their future.

APPENDICES

APPENDIX A
REQUEST LETTER

APPENDIX A
REQUEST LETTER

October 22, 1991

Name
Address
Address

To Whom It May Concern:

I am a doctoral student at Middle Tennessee State University. My dissertation involves assessing and evaluating college instructors. The dissertation proposal consists of measuring teacher effectiveness between faculty, adjunct faculty, coaches, and teaching assistants in specific activity classes. Teacher effectiveness will be determined through student evaluation of teachers (SET).

The graduate faculty at Middle Tennessee has spoken highly of your institution and your work in evaluation. The purpose of this letter is to inquire if your institution has an instrument or survey that is directly related to student evaluation of teachers. If your institution has such an instrument, I am requesting permission to use some or all of the items included in the instrument.

If you will permit me the use of such items in my study, please forward a formal letter of permission and a copy of the instrument. Each institution will be given full credit for their participation in this study. Following the completion of the study and the statistical analysis of the data, I will gladly send you a summary of the findings. Please check the line below to receive this information.

Thank you for your time and participation in this study. I look forward to your early response.

Sincerely,

Michael A. Sutliff
Doctoral Candidate

___ I would like to receive summary of findings.

APPENDIX B
ORGANIZATIONS AND INSTITUTIONS

APPENDIX B
ORGANIZATIONS AND INSTITUTIONS

Selected Organizations and Institutions

1. Carnegie Mellon University
Foundation for Advancement of Teaching
Pittsburgh, PA
2. Purdue Cafeteria System
Purdue University
West Lafayette, IN
3. University of Arizona
Arizona Course Instructor Evaluation Questionnaire
Tucson, AZ
4. Educational Testing Service
Princeton, NJ
5. Stanford Teaching Assessment Program
Stanford University
Stanford, CA
6. University of Iowa
Student Perceptions of Teacher Effectiveness
Questionnaire
Iowa City, IA
7. University of Texas
R and D Center for Teacher Education
Austin, TX
8. University of Wisconsin--Madison
Madison, WI
9. Kansas State University
Center for Faculty Evaluation and Development
Manhattan, KS

APPENDIX C
TESTING INSTRUMENT

APPENDIX C
TESTING INSTRUMENT

Student Evaluation Survey Form

Please answer each question on the response sheet provided. Make no marks on the question sheet. Use only a number-two pencil. Please read each question carefully and respond to the best of your ability.

Research Information:

1. I am (a) freshman, (b) sophomore, (c) junior, (d) senior
 2. I am (a) 18-19 years of age, (b) 20-21, (c) 22-23, (d) 24-25, (e) over 25.
 3. I am (a) male, (b) female.
 4. My instructor was (a) male, (b) female.
 5. My instructor was (a) faculty, (b) GTA or TA, (c) coach, (d) part-time instructor.
 6. Expected grade for this class is (a) A, (b) B, (c) C, (d) D, (e) F.
 7. My instructor was (a) 40 or under, (b) over 40 years of age.
 8. My class met (a) before 12:00 p.m., (b) 12:00 p.m. or later.
 9. My class was (a) individual/dual activity, (b) team games activity, (c) dance or rhythms activity.
 10. My class was (a) aerobic, (b) anaerobic activity.
 11. My class had (a) more than 15 students attending, (b) 15 or less attending.
-

The following questions are taken from the IDEA evaluation system at Kansas State University (Copyright 1988, Center for Faculty Evaluation and Development).

Describe the frequency of your instructor's teaching procedures, using the following code:

a--hardly ever

b--occasionally

c--sometimes

d--frequently

e--almost always

The Instructor:

12. Promoted teacher-student discussion (as opposed to mere responses to questions).
13. Encouraged students to express themselves freely and openly.
14. Seemed enthusiastic about the subject matter.
15. Changed approaches to meet new situations.
16. Gave examinations which stressed unnecessary memorization.
17. Spoke with expressiveness and variety in tone of voice.
18. Demonstrated the importance and significance of the subject matter.
19. Made presentations which were dry and dull.
20. Made it clear how each topic fit into the course.

From the IDEA Survey Form--Students Reactions to Instruction and Courses by the Center for Faculty Evaluation and Development, 1988, Manhattan, KS: Kansas State University, Center for Faculty Evaluation and Development. Copyright 1988 by the Center for Faculty Evaluation and Development. ADAPTED BY PERMISSION (2-92).

21. Gave examination questions which were unclear.
 22. Encouraged student comments even when they turned out to be incorrect or irrelevant.
 23. Summarized material in a manner which aided retention.
 24. Clearly stated the objectives of the course.
 25. Explained course material clearly, and explanations were to the point.
 26. Gave examination questions which were unreasonably detailed (picky).
 27. Introduced stimulating ideas about the subject.
-

On each of the objectives listed below, rate the progress you have made in this course compared with that made in other courses you have taken at this college or university.

In this course my progress was:

- a--Low (lowest 10 percent of courses I have taken here)
 - b--Low Average (next 20 percent of courses)
 - c--Average (middle 40 percent of courses)
 - d--High Average (next 20 percent of courses)
 - e--High (highest 10 percent of courses)
-

Progress on:

28. Learning fundamental principles, generalizations, or theories.
29. Learning to apply course material to improve rational thinking, problem-solving and decision-making.
30. Developing specific skills, competencies and points of view needed by professionals in the field most closely related to this course.
31. Developing creative capacities.

32. Developing a sense of personal responsibility (self-reliance, self-discipline).
 33. Gaining a broader understanding and appreciation of intellectual-cultural activity.
 34. Discovering the implications of the course material for understanding myself (interests, talents, values, etc.).
-

On the next four questions, compare this course with others you have taken at this institution, using the following code:

- a--Much Less Than Most Courses
 - b--Less Than Most
 - c--About Average
 - d--More Than Most
 - e--Much More Than Most
-

The Course:

35. Amount of reading.
 36. Amount of work in other (non-reading) assignments.
 37. Difficulty in subject matter.
 38. Degree to which the course hung together (various topics and class activities).
-

Describe your attitudes towards and behavior in this course, using the following code:

- a--Definitely False
- b--More False Than True
- c--In Between

d--More True Than False

e--Definitely True

Self-Rating:

- 39. I worked harder on this course than on most courses I have taken.
 - 40. I had a strong desire to take this course.
 - 41. I would like to take another course from this instructor.
 - 42. As a result of taking this course, I have more positive feelings towards this field of study.
-

For the following questions, indicate how descriptive each statement is by blackening the proper space:

a--Definitely False

b--More False Than True

c--In Between

d--More True Than False

e--Definitely True

- 43. The instructor gave tests, projects, etc. that covered IMPORTANT POINTS of the course.
- 44. I really wanted to take a course FROM THIS INSTRUCTOR.
- 45. I really wanted to take this course REGARDLESS OF WHO TAUGHT IT.
- 46. Overall, I rate this INSTRUCTOR an excellent teacher.
- 47. Overall, I rate this an excellent COURSE.
- 48. Overall, I LEARNED A GREAT DEAL in this course.

APPENDIX D
PERMISSION LETTER

APPENDIX D
PERMISSION LETTER

February 14, 1992

Michael A. Sutliff
HPER Department
Middle Tennessee State University
Murfreesboro, TN 37132

Dear Mr. Sutliff:

This letter is to respond to your letter of February 6, 1992 asking permission to use IDEA items. On behalf of this Center you are hereby given permission to use IDEA copyrighted items in your dissertation.

This permission is granted under the following conditions:

- 1) that the form containing the items have the following note at the bottom of the first page:

From the IDEA Survey Form--Students Reactions to Instruction and Courses by the Center for Faculty Evaluation and Development, 1988, Manhattan, KS: Kansas State University, Center for Faculty Evaluation and Development. Copyright 1988 by the Center for Faculty Evaluation and Development. ADAPTED BY PERMISSION.

- 2) that in the text of your dissertation you include the same information.
- 3) that the Center receive one complimentary copy of your dissertation when it is published.

Good luck with your dissertation!

Sincerely yours,

Wm. E. Cashin

William E. Cashin, Ph.D.
Director

**center for
FACULTY
EVALUATION &
DEVELOPMENT**
Division of Continuing Education
Kansas State University

1615 Anderson Avenue, Manhattan, KS 66502-1604

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APPENDIX E
LETTER TO INSTITUTIONS IN TENNESSEE

APPENDIX E
LETTER TO INSTITUTIONS IN TENNESSEE

January 23, 1992

Name
Address
Address

Salutation:

I am a doctoral student at Middle Tennessee State University. My dissertation involves assessing and evaluating college instructors. The dissertation proposal consists of measuring teacher effectiveness between faculty, adjunct (part-time) faculty, graduate teaching and coaching assistants, and coaches (heads and assistants) teaching physical education activity (service) classes in all Board of Regents and University of Tennessee institutions in Tennessee.

The instrument chosen for the study is the Instructional Development and Effectiveness Assessment (IDEA) survey developed by Kansas State University. IDEA has a national comparative database of over 80,000 classes from more than 300 colleges and universities. For this study, 46 questions will be utilized. Sectional areas of assessment include: (1) the instructor, (2) progress on, (3) the course, (4) self-rating, and (5) seven summary (research) questions (listed A-G on the instrument). Students evaluating instructors will read questions from the survey form and record scores on computer cards. Average scoring time is approximately 30 minutes. A copy of the instrument has been included with this letter. I am requesting participation from your department and will gladly send you a summary of the findings if you choose to participate. All data will be dealt with confidentially, and no individual taking part will be identified.

Hopefully, you and your faculty will be willing to be involved in this study. Please let me know by February 7th if your department is interested in participating. If necessary, please forward the appropriate release letter granting permission for using human subjects.

Thank you for your time and consideration in making this
dissertation a success.

Sincerely,

Michael A. Sutliff
Doctoral Candidate

APPENDIX F
FREQUENCY OF RESPONSES PER ACTIVITY

APPENDIX F
FREQUENCY OF RESPONSES PER ACTIVITY

FREQUENCY OF FACULTY GROUPS FOR
PARTICIPATING INSTITUTIONS

Faculty group	Frequency	Percent
Faculty	435	18.1
GTA-TA	753	31.3
Part-time (adjunct)	727	30.2
Coach	483	20.1

Note. The above percentages do not total 100% due to missing data.

FREQUENCY OF NATURE OF ACTIVITY FOR
PARTICIPATING INSTITUTIONS

Nature of activity	Frequency	Percent
Individual/dual	1,555	63.3
Team games	521	21.2
Dance/rhythms	359	14.6

Note. The above percentages do not total 100% due to missing data.

FREQUENCY OF AGE OF INSTRUCTOR FOR
PARTICIPATING INSTITUTIONS

Instructor age	Frequency	Percent
40 or over	1,588	65.0
Under 40	851	34.8

Note. The above percentages do not total 100% due to missing data.

FREQUENCY OF MALE AND FEMALE INSTRUCTORS
FOR PARTICIPATING INSTITUTIONS

Instructor gender	Frequency	Percent
Male	1,620	66.4
Female	805	33.0

Note. The above percentages do not total 100% due to missing data.

FREQUENCY OF MALE AND FEMALE RESPONDENTS
FOR PARTICIPATING INSTITUTIONS

Student gender	Frequency	Percent
Male	1,179	48.2
Female	1,258	51.4

Note. The above percentages do not total 100% due to missing data.

FREQUENCY FOR TIME OF DAY FOR ACTIVITY
FOR PARTICIPATING INSTITUTIONS

Time of activity	Frequency	Percent
Before 12:00 p.m.	1,391	57.0
12:00 p.m. or later	1,045	42.8

Note. The above percentages do not total 100% due to missing data.

FREQUENCY OF AEROBIC AND ANAEROBIC ACTIVITIES
FOR PARTICIPATING INSTITUTIONS

Nature of activity	Frequency	Percent
Aerobic	1,095	45.0
Anaerobic	1,331	54.7

Note. The above percentages do not total 100% due to missing data.

FREQUENCY OF CLASS SIZE FOR
PARTICIPATING INSTITUTIONS

Class size	Frequency	Percent
More than 15	1,886	77.1
15 or less	482	19.7

Note. The above percentages do not total 100% due to missing data.

FREQUENCY OF STUDENT RANKINGS FOR
PARTICIPATING INSTITUTIONS

Student rank	Frequency	Percent
Freshman	1,210	49.6
Sophomore	481	19.7
Junior	330	13.5
Senior	405	16.6

Note. The above percentages do not total 100% due to missing data.

FREQUENCY OF EXPECTED STUDENT GRADE
FOR PARTICIPATING INSTITUTIONS

Student expected grade	Frequency	Percent
A	2,130	87.2
B	287	11.7
C	21	.9
D	0	.0
F	0	.0

Note. The above percentages do not total 100% due to missing data.

FREQUENCY OF RESPONSES IN STUDENT AGE
FOR PARTICIPATING INSTITUTIONS

Student age groups	Frequency	Percent
18-19	1,119	45.7
20-21	639	26.1
22-23	319	13.0
24-25	104	4.3
Over 25	266	10.9

Note. The above percentages do not total 100% due to missing data.

 FREQUENCY OF FACULTY RANK FOR EACH INSTITUTION

Institution	Faculty	GTA-TA	Coach	Part-time	Miss	Total
1	16	0	199	1	9	225
2	195	510	129	202	15	1,051
3	144	188	247	138	21	738
4	32	54	100	69	8	263
5	48	1	51	73	76	180
Totals	435	753	727	483	59	2,457

 FREQUENCY OF ACTIVITY RANK FOR EACH INSTITUTION

School	Individual/dual	Team sports	Dance/rhythms	Miss	Total
1	164	57	3	1	225
2	679	183	180	9	1,051
3	397	196	138	7	738
4	193	45	22	3	263
5	122	39	16	3	180
Totals	1,555	520	359	23	2,457

 FREQUENCY OF AGE OF INSTRUCTOR FOR EACH INSTITUTION

School	40 or under	Over 40	Miss	Total
1	177	47	1	225
2	728	317	6	1,051
3	324	408	6	738
4	183	76	4	263
5	176	2	4	180
Totals	1,588	850	19	2,457

 FREQUENCY OF GENDER OF INSTRUCTOR FOR EACH INSTITUTION

School	Male instructors	Female instructors	Miss	Total
1	218	4	3	225
2	659	383	9	1,051
3	475	251	12	738
4	195	62	6	263
5	89	89	2	180
Totals	1,636	789	32	2,457

 FREQUENCY OF GENDER OF STUDENTS FOR EACH INSTITUTION

School	Male students	Female students	Miss	Total
1	90	135	0	225
2	485	557	9	1,051
3	375	359	4	738
4	139	118	6	263
5	72	105	3	180
Totals	1,161	1,274	22	2,457

 FREQUENCY OF TIME OF ACTIVITY FOR EACH INSTITUTION

School	Before 12:00 p.m.	12:00 p.m. or later	Miss	Total
1	199	24	2	225
2	539	503	9	1,051
3	389	343	6	738
4	162	98	3	263
5	101	77	2	180
Totals	1,390	1,045	22	2,457

FREQUENCY OF AEROBIC AND ANAEROBIC ACTIVITIES FOR EACH INSTITUTION

School	Aerobic	Anaerobic	Miss	Total
1	116	106	3	225
2	448	591	12	1,051
3	316	414	8	738
4	113	144	6	263
5	101	76	3	180
Totals	1,094	1,331	32	2,457

FREQUENCY FOR CLASS SIZE AT EACH INSTITUTION

School	15 or more	Less than 15	Miss	Total
1	197	17	11	225
2	764	247	40	1,051
3	594	122	22	738
4	179	74	10	263
5	152	21	7	180
Totals	1,886	481	90	2,457

 FREQUENCY OF STUDENT RANK FOR EACH INSTITUTION

School	Freshman	Sophomore	Junior	Senior	Miss	Total
1	112	44	36	32	1	225
2	390	264	170	212	15	1,051
3	538	81	42	70	7	738
4	110	52	40	54	7	263
5	60	40	41	37	2	180
Totals	1,210	481	329	405	32	2,457

 FREQUENCY OF EXPECTED GRADE OF RATER FOR EACH INSTITUTION

School	A	B	C	D	F	Miss	Total
1	212	12	1	0	0	0	225
2	912	122	9	0	0	8	1,051
3	669	58	6	0	0	5	738
4	186	68	4	0	0	5	263
5	150	27	1	0	0	2	180
Totals	2,129	287	21	0	0	20	2,457

FREQUENCY OF AGE GROUPINGS OF RATER FOR EACH INSTITUTION							
School	18-19	20-21	22-23	24-25	Above 25	Miss	Total
1	99	50	21	8	47	0	225
2	380	312	166	65	124	4	1,051
3	467	126	69	18	55	3	738
4	106	81	30	8	36	2	263
5	67	69	33	5	4	2	180
Totals	1,119	638	319	104	266	11	2,457

 FREQUENCY OF RESPONSES PER ACTIVITY

Activities	Frequency	Percent	Cumulative percent
Aerobics	174	7.1	7.1
Aerobic dance	32	1.3	8.4
Archery	87	3.5	12.0
Ballet	42	1.7	13.7
Int. ballet	11	.4	14.1
Badminton	168	6.8	21.0
Backpacking	48	2.0	22.9
Basketball	61	2.5	25.4
Bicycling	9	.4	25.8
Bowling	162	6.6	32.4
Casting/fishing	16	.7	33.0
Folk/square dance	46	1.9	34.9
Jazz dance	13	.5	35.4
Modern dance	19	.8	36.2
Social dance	36	1.5	37.6
Tap dance	12	.5	38.1
Int. tap dance	6	.2	38.4
General condition	42	1.7	40.1
Golf	131	5.3	45.4
Int. golf	7	.3	45.7
Gymnastics	26	1.1	46.8

Activities	Frequency	Percent	Cumulative percent
Karate	93	3.8	50.5
Advanced karate	17	.7	51.2
Life saving	10	.4	51.6
Riflery	80	3.3	54.9
Self-defense (w)	56	2.3	57.2
Soccer	21	.9	58.1
Swimming	74	3.0	61.1
Tennis	248	10.1	71.2
Int. tennis	29	1.2	72.4
Adv. tennis	10	.4	72.8
Racquetball	214	8.7	81.5
Scuba	58	2.4	83.8
Self-defense (coed)	40	1.6	85.5
Volleyball	179	7.3	92.8
Adv. volleyball	9	.4	93.1
Water aerobics	16	.7	93.8
Weight training	134	5.5	99.2
Tumbling/trampoline	19	.8	100.0

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