A COMPARISON OF STUDENT PERCEPTIONS OF QUALITY OF INSTRUCTION
BY FULL-TIME INSTRUCTORS AND ADJUNCT INSTRUCTORS AT A
COMMUNITY COLLEGE IN IOWA

An Abstract of a Thesis by
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The purpose. The purpose of the thesis is to examine student perceptions of the quality
of instruction at a community college to determine if there is a significant difference
based on the employment status of the instructor.

Procedure. Permission was obtained from the Dean of the Marshalltown Community
college to conduct the study. An instrument was constructed using student input at the
same college. This survey instrument was then administered to a sample of students in
classes taught by full-time instructors and classes taught by adjunct instructors. These
classes were selected randomly. The total of 129 surveys tabulated for this study
constituted a sample of 10.6 percent of the population. Five demographic questions and
eight evaluation questions were asked. Both chi square results and mean scores were
calculated.

Results. At an alpha level of .05 only one evaluation question showed a significant
difference, that being item 6: The instructor’s knowledge of the subject seems broad and
accurate. Students rated adjunct instructors higher on this item than they did full-time
instructors. Chi square results for each survey item are given as well as mean score
comparisons of various demographic categories.

Conclusions. This study indicates that students perceive little difference in the quality of
instruction delivered by full-time instructors or by adjunct instructors at Marshalltown
Community College.
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Chapter 1

INTRODUCTION

Statement of the Problem

Much concern is currently being expressed about the effectiveness of colleges. This concern is particularly evident in the public sector of higher education where tax dollars support the educational systems directly. By their very nature of being community based, public community colleges experience scrutiny as to how funds are spent as well as intense competition for students and the dollars they bring into the institution. These factors, as well as academic constraints, prompt public community colleges to evaluate their effectiveness frequently and scrupulously.

At Marshalltown Community college a survey was given in 1996 in which student satisfaction was measured. One facet of satisfaction inquired about concerned students' opinion of quality of instruction. Student response indicated a high rate of satisfaction with instruction at Marshalltown Community College (See Appendix). However, in the survey no distinction was made between full-time and adjunct faculty. Marshalltown Community College employs 54 full-time instructors and 64 adjunct instructors at present. Of the full-time instructors 38 are Arts and Science faculty while of the 64 adjunct instructors 57 teach Arts and Science. Adjunct faculty are defined in Iowa as those instructors "employed by a community college without a continuing contract, whose teaching load does not exceed one-half time for two full semesters or three full quarters per calendar year" (Legislative Service Bureau, 1994, p. 847, 97b.41[8b]).

Because they provide instruction at considerable savings and constitute 54 per cent of the faculty in numbers (though not in classes taught), adjunct instructors are an integral part of the delivery system at Marshalltown Community College. They contribute to the overall welfare of the institution economically, but do they enhance the reputation of the
institution in students' perception of their educational experience? Because of the setting in which the public community college exists, student opinion and word-of-mouth advertisement can be a benefit or a detriment in recruiting and enrolling new students.

As the literature attests adjunct instructors also labor under questions of their qualifications and capabilities as instructors. Are these concerns realized by their students as well?

Purpose of the Study

The purpose of this study is to compare the students' perception of quality of instruction at a community college when delivered by full-time instructors to the quality of instruction delivered by adjunct instructors. The independent variable of the study was the instructor's employment status either full-time or adjunct. The dependent variables were eight items of the survey measuring level of student satisfaction with the quality of instruction.

Research Hypothesis

The research hypothesis for this study is that on eight survey items students in Arts and Sciences classes at a two year community college who have adjunct instructors express a level of satisfaction with the quality of instruction different from that expressed by students in Arts and Sciences classes at the same college who have full-time instructors.

Statistical Hypothesis

Null hypothesis, \( H_0 \): There will be no significant difference in the student evaluation scores on survey item number 6 (The instructor's knowledge of the subject seems broad and accurate) between those students who evaluate a full-time instructor and those students who evaluate an adjunct instructor as measured by the chi-square test for independence.

Alternate hypothesis, \( H_1 \): There will be a significant difference in the student evaluation scores on survey item number 6 between those students who evaluate a full-
time instructor and those students who evaluate an adjunct instructor as measured by the chi-square test for independence.

Null hypothesis, $H_0$ : There will be no significant difference in the student evaluation scores on survey item number 7 (The instructor establishes clear objectives for the class) between those students who evaluate a full-time instructor and those students who evaluate an adjunct instructor as measured by the chi-square test for independence.

Alternate hypothesis, $H_1$ : There will be a significant difference in the student evaluation scores on survey item number 7 between those students who evaluate a full-time instructor and those students who evaluate an adjunct instructor as measured by the chi-square test for independence.

Null hypothesis, $H_0$ : There will be no significant difference in the student evaluation scores on survey item number 8 (The subject is presented in an understandable way) between those students who evaluate a full-time instructor and those students who evaluate an adjunct instructor as measured by the chi-square test for independence.

Alternate hypothesis, $H_1$ : There will be a significant difference in the student evaluation scores on survey item number 8 between those students who evaluate a full-time instructor and those students who evaluate an adjunct instructor as measured by the chi-square test for independence.

Null hypothesis, $H_0$ : There will be no significant difference in the student evaluation scores on survey item number 9 (The instructor is enthusiastic about the subject taught) between those students who evaluate a full-time instructor and those students who evaluate an adjunct instructor as measured by the chi-square test of independence.

Alternate hypothesis, $H_1$ : There will be a significant difference in the student evaluation scores on survey item number 9 between those students who evaluate a full-time instructor and those students who evaluate an adjunct instructor as measured by the chi-square test of independence.
Null hypothesis, $H_0$ : There will be no significant difference in the student evaluation scores on survey item number 10 (The instructor makes the class interesting) between those students who evaluate a full-time instructor and those students who evaluate an adjunct instructor as measured by the chi-square test of independence.

Alternate hypothesis, $H_1$ : There will be a significant difference in the student evaluation scores on survey item number 10 between those students who evaluate a full-time instructor and those students who evaluate an adjunct instructor as measured by the chi-square test of independence.

Null hypothesis, $H_0$ : There will be no significant difference in the student evaluation scores on survey item number 11 (The instructor answers questions clearly and completely) between those students who evaluate a full-time instructor and those students who evaluate an adjunct instructor as measured by the chi-square test of independence.

Alternate hypothesis, $H_1$ : There will be a significant difference in the student evaluation scores on survey item number 11 between those students who evaluate a full-time instructor and those students who evaluate an adjunct instructor as measured by the chi-square test of independence.

Null hypothesis, $H_0$ : There will be no significant difference in the student evaluation scores on survey item number 12 (The instructor has respect for the students) between those students who evaluate a full-time instructor and those students who evaluate an adjunct instructor as measured by the chi-square test of independence.

Alternate hypothesis, $H_1$ : There will be a significant difference in the student evaluation scores on survey item number 12 between students who evaluate a full-time instructor and those students who evaluate an adjunct instructor as measured by the chi-square test of independence.

Null hypothesis, $H_0$ : There will be no significant difference in the scores on survey item number 13 (The instructor is available for help outside of class) between those
students who evaluate a full-time instructor and those students who evaluate an adjunct instructor as measured by the chi-square test of independence.

Alternate hypothesis, $H_1$: There will be a significant difference in the scores on survey item number 13 between those students who evaluate a full-time instructor and those students who evaluate an adjunct instructor as measured by the chi-square test of independence.

Research Design

The target population is the students in the Arts and Sciences program at a two year community college in Iowa. The sample studied is twelve classes in the fall term 1996 (n=129). The sample represents 10.6 per cent of the target population. Six of the classes are taught by a full-time instructor and six are taught by an adjunct instructor. There was no random selection of participants, however, classes to be surveyed were randomly selected. The survey instrument was administered to all students and asked for ratings of the instructor of the course in which the survey was given. Privacy of the participants was assured by anonymity on the survey. Classes were identified as full-time or adjunct instructed by a letter code.

The study is descriptive, quasi experimental, $X_{O_1}$ in design with a $O_2$

posttest administered to both groups and chi-square test of independence used to measure significance between the two groups.

Methodology

A survey was given to students in twelve classes at Marshalltown Community College during the Fall 1996 term. Classes were limited to the general education program and did not include certificate or vocational programs. The pool of classes included all divisions, however the study may be limited by the fact that not all divisions have adjunct instructors. The survey was given at the two-thirds point of the semester or in the eleventh week of the term. This allowed students to have had several assignments, tests,
evaluations, and opportunities to experience various teaching techniques as well as opportunities for out-of-class exchanges with the instructor and avoided holidays and mid-term week.

A Likert-like scale measured student level of satisfaction. These data were quantified and were subjected to the statistical tests mentioned above. Also asked was demographic information which was quantified and tabulated for comparison of the two groups. As part of the background study, a search was made for a proven instrument. Since none was found, one was constructed.

A chi-square test for independence was completed to determine if the difference observed in the responses of the two groups of students was significant at the alpha level of .05.
Chapter 2

LITERATURE REVIEW

College Effectiveness

Currently the issue of effectiveness of colleges is a topic of discussion and debate. The difficulty encountered in measuring effectiveness is in deciding what will be the standard of measurement. Alan Seidman (1993) reports that a recent trend encouraged by the federal government and some state governments is to use graduation rates as the standard.

Beginning July 1, 1993 colleges must report graduation rates of full-time students. The Student Right-to-Know and Campus Security Act (Public Law 101-542) Section 103 of Title I of the legislation signed into law November 8, 1990, requires an institution to produce and make readily available the completion or graduation rates of certificate or degree-seeking, full-time students entering that institution to current students and to each prospective student upon request. (pp. 37-38)

Seidman also notes that the College Board asks for graduation rates for its publication, The College Handbook, and that "even colleges are judging the success of their efforts by assessing the percentage of entering freshmen who graduate" (1993, p. 39).

Another measure of effectiveness is retention or attrition rates. The benchmark study on retention was conducted by Vincent Tinto in 1975 and was followed by research done by Bean and Metzner in 1986 (as cited in Webb, 1989). Other models reported on in the literature are Webb's (1989) and Henry and Smith's (1994). A study of attrition by Fralick (1993) at Cuyamaca College concentrated on profiling students at risk for "negative attrition" (p. 30) defined as those "nonreturning students [who] were not successful in achieving their goals or completing their classes" (p. 30). Another study
looked at retention of nontraditional adult students in a distance learning program (Towles & Spencer, 1993). A study by Stith and Russell (1994) concentrated on attrition rates by racial groupings. The authors call for "models to explain the dynamics of retention and the dynamics of attrition for the three racial/ethnic groups [Black, Hispanic, White]" (p. 18). Glass and Garrett (1995) studied how retention is influenced by student participation in a college orientation class.

Because of the nature of community colleges—the open door policy and the fact that one half of the students enrolled in undergraduate studies are enrolled in community colleges—retention and attrition must be defined to fit the community college context. Various terms appear in the literature such as "dropouts" (Towles & Spencer, 1993), "returning and nonreturning" (Fralick, 1993), "leavers" (Taylor, 1994), "noncompleters" (Rowe & Smith, 1990), and "discontinuants" (Yao, 1991). Fralick uses the terms positive attrition and negative attrition in discussing the achievement of goals by the college student. The goals which lead to "successful" completion are degree attainment, certification or licensure, transfer to a four year college, or employment (either at a better salary or in a new position). Positive attrition describes students who "made progress toward achieving their goals or successfully completed the classes in which they were enrolled during the semester" (p. 30). Negative attrition describes students "who said that they had not been successful in making progress toward achieving their goals or had not successfully completed their classes" (p. 30).

In an interview in July 1996, Paul Tambrino, President of the Iowa Valley Community College District made this same kind of distinction. Dr. Tambrino was commenting on a survey by American College Testing which shows that 26.9 percent of freshmen do not return for the sophomore year in both two- and four-year colleges. For two year community colleges, the percent of nonreturning students—the "dropout rate"—is 44.3.
Tambrino noted that
Not all enrolled students are pursuing a two-year degree or certificate. A student make [sic] take a few courses to satisfy a career objective or as a review. Students like that, whose objectives can be fulfilled in less than two years, can skew enrollment figures. "That student didn't return, but accomplished his goal."
(Milligan, 1996, p. A1)

Another measure of effectiveness used by community colleges is the student satisfaction survey. Examples are abundant. A search of ERIC yielded 28 such surveys from 1982-1991. Students surveyed included nonreturning students, nontraditional students, recent graduates, GED (General Equivalency Diploma) graduates, academically gifted students, and currently attending students. A search of the ERIC database for the dates 1992 to the present yielded 22 reports of student satisfaction surveys.

Because quality of instruction is recognized as one specific component of effectiveness, most surveys reported on in the literature, ask for student opinions about their instructors and instruction. The issue is an important one for Iowa community colleges because of their stated mission:"to offer quality programs, courses, and services" (Iowa Department of Education, 1995, p. 77). As stated by the Catalog of College Information, Curricula and Course Offerings 1993-1995, the philosophy of the Marshalltown Community College is one of

providing a learning environment which will help individuals reach their highest potentialities for personal fulfillment and contribution to society. In striving to meet this philosophy, the college commits all of its resources to achievement of the following purposes:

1. To provide equal educational opportunity for all students
2. To provide quality teaching for all students
3. To provide occupational career education
4. To provide transfer education
5. To provide general education
6. To provide developmental and remedial education
7. To provide a wide range of students services
8. To provide intellectual and cultural enrichment for all students
9. To provide a broad program of community services
10. To provide lifetime learning opportunities for all persons
11. To provide for articulation and cooperation with other organizations and institutions (public and private educational, industrial, commercial)
12. To provide experiences which develop a sensitivity to responsibilities as a citizen in the global community and environment. (p. 4)

One of the significant measures of effectiveness in a community college is certainly the quality of instruction. In order to provide instruction within budget constraints, community colleges rely heavily on adjunct instructors.

"The limitations of obtaining additional funding coupled with an increasing demand for affordable higher education is at the root of increased reliance on adjunct faculty" (Thompson, 1995, p. 4). According to the California Community College Chancellor's Office 1987, "When lack of benefits and lack of an office hours requirement were taken into consideration, the cost to the college of employing an adjunct was approximately 40% percent less than the cost to the college of employing a full-time faculty member" (quoted in Thompson, 1995, p. 4). When Marlene Cohen (1992) inquired of the Controller, Gerard DeSeve about cost savings for Prince George's Community College in Maryland, she was told "the cost of fringe benefits makes each full-time faculty cost the college 130% of salary per hour, while adjuncts cost 108% of their lower salary level"
In the present economy then, when it is estimated that "90 percent of all new jobs created in the early 1990s were temporary" (Hilary Pennington, president of Jobs for the Future, quoted in Avakian, 1995), adjunct faculty are increasingly utilized. Avakian (1995) states that "approximately 40 percent of instruction in higher education institutions in the United States is performed by adjunct faculty members who are part time and non-permanent" (p.35). While many writers and researchers use the terms "part-time" and "adjunct" interchangeably, Iowa law distinguishes between adjunct and part time instructors in the following way. Adjunct instructors are defined as those instructors "employed by a community college without a continuing contract, whose teaching load does not exceed one-half time for two full semesters or three full quarters per calendar year" (Legislative Service Bureau, 1994, p.847, 97B.41 (8b)). A regular part-time Arts and Science instructor is defined as teaching 16 credit hours in two semesters.

Many of these adjunct instructors do not have education degrees, but by virtue of their experience are asked to teach classes in an area of vocational or professional expertise e.g. a lawyer who teaches criminology or a human resources manager who teaches business management. Because of the heavy reliance on adjuncts, the student at a community college will very likely take at least one class and perhaps more under an adjunct instructor. A survey of seventeen Iowa community colleges taken by this researcher in 1993 reported that there were at that time 1,368 full-time and 1,633 adjunct instructors teaching in those colleges.

Concerns about Adjunct Faculty

The question of whether adjunct instructors are good teachers is discussed a great deal in the literature. Opinions abound and are often quite contradictory. Among those who proclaim confidence in the teaching of adjuncts is John McGuire (1993), who states simply, "Part-time faculty are good teachers.... and achieve the same student outcomes
as full-time community college faculty." He cites a study done by L. H. Willet in 1980 and one done by Miami-Dade Community College in 1986 as evidence of his assertion. Maquire (1984), cites the special skills which part-time faculty bring to the classroom which full-time faculty cannot provide as well as the fact that they aid in student retention. In describing adjunct instructors who come from a professional career other than teaching and hence have no terminal education degrees, Samuel (1989) contends:

Due to their professional experiences, and personal commitments to their new vocations [teaching], such individuals may succeed in making a difficult subject understandable, may be sensitive to the needs of students, and willing to spend appreciable amounts of time in order to help them understand the material. (p. 46)

At Prince George's Community College when part-time faculty were asked to list the highest degree held, 90% of the respondents said they possessed a master's degree or a doctorate (Bartow, 1990).

Bramlett and Rodriguez, however, state a concern that overuse of adjunct faculty while not providing for their development as instructors "may deeply damage the reputation of the college in the community and may deeply split the institution internally" (1982-83, p. 40). They also warn that since most adjuncts are members of the community, their abuse by the community college "will undo whatever public relations campaigns any institution may attempt" (p. 40).

Spinetta (1990) cites studies which report that "part-time faculty have earned fewer academic credentials, [and] have less teaching experience" (p. 44) than their full-time counterparts. Richardson (1992) too, reports studies which show part-time do not have equal credentials to full-time, are generally less experienced, and do not set the same standards for student performance.

Although reports of number and kind of degrees held by part-time faculty may not agree, it can be seen from the remarks quoted above that even part-time instructors with
degrees have a need for training in pedagogy and andragogy. "One of their key needs, especially for those with little or no college teaching experience, is to overcome their unpreparedness in teaching today's untraditional college students and adult learners" (Maguire, 1984, p. 31).

On this subject Engleberg (1993) decries the absence of advanced degrees applicable to teaching in community colleges saying that "neither the discipline-based nor the educational doctorate is adequate" (p. 1). Claiming that even graduate students are not prepared for teaching at the community college, she submits five proposals for graduate education of community college instructors:

1) discipline-based programs taught by a master community college teacher or a community college's instructional dean with master teaching credentials; 2) graduate programs should allow and encourage students to earn graduate credit for community college field experience [not practice teaching]; 3) universities should work with local community colleges to create faculty exchange programs and graduate student apprenticeships; 4) graduate program faculty should form [research] partnerships with community college faculty; 5) graduate schools should recruit community college faculty for their programs, [and] community college faculty should be welcomed to graduate programs as colleagues. (p. 4) Engleberg commends the program created in 1988 at George Mason University.

Richardson (1992) sees the use of adjunct instructors as a major determiner of college effectiveness. "Succinctly stated, the quality of instruction and the degree of professionalism of a college are directly affected by the reliance on adjunct instructors" (p. 30). Some commentators go so far as to bring up the issue of equality in instruction as a factor of adjunct instruction. Particularly concerned with the availability of adjuncts for advising and conferencing with students are Spinetta (1990) and Samuel (1989). Spinetta quotes from a position paper (Academic Senate Resolution 886-051), "It is indefensible to have the same course taught by a full-time faculty member and a part-time faculty
member when the pay of the part-time faculty is only a small fraction of the pay of the full-time member. There is certainly no corresponding adjustment in student fees or state apportionment because a given course has a lower cost" (Spinetta, 1990, p. 46). She argues, "Part-time faculty often do not have the time or resources to work extensively with students outside of class. . . . Students taught by part-time faculty should have equal educational opportunities, privileges, and advantages as those taught by full-time faculty" (pp. 46-47). Samuel addresses the issue of equality when he contends, "The teaching services provided for students who pay the same tuition are differentiated and unequal" (pp. 42-43). The issue is worth exploring since the philosophy statement of Marshalltown Community College lists "providing equal educational opportunity for all students" as the college's first obligation to students (see p. 4).

Solutions

As the debate about the effectiveness of adjunct instructors continues, the literature also abounds with articles and models proposing solutions to the concerns voiced. Many studies and models are reported and what follows will be just a sampling from a large body of literature. Proposals fall into several categories, namely: a) strategies to improve part-time faculty morale, b) strategies to improve recruitment of part-time faculty, c) strategies for training of part-time faculty (often referred to as orientation or staff development). Strategies to improve morale include articles by Maguire (1984) who gives a general outline of ideas, Samuel (1989) who advocates for office hours and pay for the time allocated for those hours for adjunct instructors, and McGuire (1993) who discusses part-time integration into the collegium. Strategies to improve recruitment include articles by Rickert and Miller (1990) who recommend an employee referral program (ERP) and Samuel (1989) who proposes hiring and promotion policies and certification of part-timers without terminal educational degrees.
Strategies for training are proposed by Richardson (1992) who describes the Instructional Skills Workshop (ISW) at College of the Canyons, Valencia, California. McGuire (1993), briefly describes a staff development agenda. Thompson (1995) gives an excellent review of current practice with in-depth descriptions of Mentoring, Orientation, Workshops, Adjunct Faculty Handbooks, Newsletter and Training Letter, Adjunct Faculty Committees, Video Tapes, and Integration into Department. Rickert and Miller (1990) describe the training letter in detail. Barnes (1990) details the Faculty Development Program at Aurora Community College, Aurora, Colorado. Ostertag (1991), whose Model for the Nineties is based on the Central Texas College Europe Campus experience, delineates the creation and implementation of their specific professional development program including the cover letter and questionnaire used (does not give specific workshop content, however). Rhodes (1991), who set out to create a comprehensive needs assessment at Northwestern Michigan College, describes the process in an article which contains an excellent Review of Literature. Lecroy and McClenny (1992) direct their suggestions to full-time community college faculty but give program guidelines and a model which are applicable to part-time faculty as well.

Voices in the Debate

What is being said by the individuals most closely associated with the debate about the effectiveness of adjunct instructors? What follows are sample comments from professional organizations, from deans and colleagues, from adjuncts themselves, and from students. A look at both sides of the discussion along with comments on the biases of the sources is presented by Thompson (1995). In a 1988 report the National Education Association called for the reduction in use of part-time and temporary faculty and in a 1986 report the Education Commission also criticized the use of part-time faculty because of concerns with "faculty collegiality, instructional continuity, and curricular coherence" (Gappa as cited by Thompson, 1995, p. 3). "Neither the American Association of
Community Colleges nor the American Council of Education have [sic] statements regarding the increasing reliance on adjunct faculty members" (Avakian, 1995, p. 36). Peter Maguire, an Assistant Professor, County College of Morris, Randolph, New Jersey, maintains that "the role of adjuncts will become more important and controversial in future years" (1984, p. 28). Speaking for Prince George's Community College, Bartow says, "We believe that the effective use of part-time faculty represents an opportunity rather than a threat" (1990, p. 45).

Not everyone in collegiate circles is convinced of the worth of adjunct faculty. Richardson (1992), a Professor of Political Science, College of the Canyons, Valencia, California, refers to "their [adjuncts] inferior status" (p. 30) and expresses his opinion that "adjunct faculty are already painfully aware of their second-class citizenship in the college community" (p. 33). Dr. Eugene Arden, Vice Chancellor at the University of Michigan, Dearborn speaks of his concerns about adjuncts when he states that "recent research confirms overwhelmingly that many adjuncts are in dire need of training to help them plan a syllabus or a daily lesson, construct fair but revealing tests, and know when to direct students to the counseling office and tutoring center" (as cited in Cohen, 1992, p. 5). Adjunct faculty members themselves echo the concerns expressed by Chancellor Arden when responding to the survey sent to them at Prince George's Community College. "Though confident of the course subject matter, some [adjuncts] expressed lack of knowledge of how best to teach the material" (Cohen, 1992, p. 3), however, they also expressed a willingness to attend workshops on teaching and learning issues--73% percent responding definitely or probably (Cohen, 1992, p. 5).

An interesting perspective on being an adjunct professor emerges in an article in Marketing News. Three adjuncts whose primary employment is in the business world are interviewed about their experiences. They speak of both their hesitancy about their educational preparedness and their sense of reward and accomplishment. John Mooshie
owns an outdoor advertising business, has a bachelor's degree but no teaching experience. He tells of being persuaded to seek an adjunct position at Florida State University by a friend who was teaching part-time there. In his interview with an administrator, John explains, he told the interviewer, "I know the material, but I don't know anything about teaching." According to Mooshie the reply was, "That's why we want you--we need somebody with real world, not classroom experience." Mooshie shows his conscientiousness about his work as an adjunct when he talks about the time required for preparation and the necessity for the instructor to learn the skills for himself. "Once you get going, teaching requires at least one hour of preparation for every class hour" (Melia, 1990, p. 2).

Another business executive serving as an adjunct at the University of Dallas for the past 11 years speaks of the rewards in what he does. "I wouldn't have been teaching for that long without it being a very rewarding experience. I'm proud to be a professor at the University of Dallas...We're adjuncts, but we feel more like full-time teachers." And Francis Paris, a district sales manager for NCR Corporation who teaches at Florida State University, declares that his being an adjunct "makes me a better manager." The trade off according to Paris is that "I can show and tell students what is happening out there in real life" (Melia, 1990, p. 2).

Unfortunately, not all part-time instructors feel the acceptance that Nash does. Speaking in a focus group at Prince George's Community College, one adjunct lamented, "What's your title after seventeen years? TBA!" (Cohen, 1992, p.3). Avakian is willing to express what full-time faculty disapprove of and fear about adjunct faulty saying that adjuncts are unsupportive, disinterested, and "less committed to the institution" and that their hiring creates an "erosion of the meaning of tenure...[and] a reduction in the strength of the permanent faculty voice" (1995, p. 36). Regarding quality of instruction permanent faculty members fear that program continuity is compromised since some adjunct faculty members lack teaching experience, and others are inferior
teachers who expect either too little or too much of students. These conditions, they say, result in an uneven quality of instruction. (Avakian, 1995, p. 36)

Everyone in the academic community seems to have an opinion about adjunct instructors. What about the students who take their classes? According to Avakian "students, as well as the entire institutional community benefit from the expertise and special skills of adjunct faculty members" although "students do not distinguish between the two types of teachers" (Avakian, 1995, p. 36). Students are often asked as part of an exit survey or part of a study of effectiveness by a particular college to rate the quality of instruction received. Surveys have been conducted which seek the input of students of certain majors, of nontraditional students, of students of varied racial and ethnic backgrounds, of students who commute, of male and female students, or of first generation students, but what about students of part-time or adjunct faculty? The prevalent discussion in the literature about quality of instruction when linked with concerns about adjunct instructors' preparedness for teaching certainly warrents the inference that students who have adjunct instructors are being short changed in their education. Some have even contended that students are receiving "differentiated and unequal" services (Samuel, 1989, p. 43).

In this review of the literature little has been found in which the opinions of students who have adjuncts are sought out, specifically requesting their assessment of the instruction they have received from adjunct instructors. One such study mentioned by Alfano in a condensed review of current issues was conducted at Fullerton College by thirteen faculty who taught evening classes. Desiring to "enhance teaching excellence in evening classes, [t]hese faculty attended workshops on adult learners, learning styles, classroom assessment techniques, and interactive teaching techniques" (Kelly as cited in Alfano, 1994, p.3). The instructors attended workshops in Fall 1991 and applied their new learning in Spring of 1992. Surveys asked students "to assess program effectiveness" at the beginning, middle, and end of the Spring term.
One other study conducted at Saddleback College in California specifically asked students to express their preference level for full-time versus part-time instructors as an influence on enrollment decisions. The study was precipitated by differences in faculty functions and not by a concern over quality of instruction provided by part-time instructors. A noteworthy difference in students' preference for full-time faculty was observed (Sworder, 1987).

Certain questions surface when considering the issue of part-time or adjunct instructors from the viewpoint of students:

Do students perceive that they are receiving "equal educational opportunity"?
Do students perceive that they are receiving "quality teaching"?
Do students perceive that adjunct instructors are available to them for help outside class.
Do students who discontinue college base their decisions on their experience with adjunct instructors?
Does the community college need to rethink and possibly revise its philosophy about and hiring practices of adjunct instructors?

At a time when major emphasis is being put on the effectiveness of colleges, and student satisfaction with quality of instruction is being used as a measure of that effectiveness, concern about adjunct instructors' preparedness for teaching continues to be voiced; therefore, these questions beg for thoughtful investigation. "Are community colleges effective in the education they provide to their students? Only through research can this question be answered" (Seidman, 1993, p.40).
Chapter 3

PROCEDURES

Preparation of the Survey

As the mission statement asserts, the concern of Marshalltown Community College is to deliver quality instruction to students; therefore, the students' perception of instruction begs to be measured. Sworder contends:

Ultimately, any change in the instructional quality of a college will impact those who were instructed, namely the students. This is true whether concern rests with classroom teaching effectiveness or the quality of the educational program as a whole. Student opinion is thus an important resource in any investigation concerned with instructional quality. (1987, p. 16)

A study conducted by the California Association of Community Colleges (CACC) sought to produce ten indicators of college effectiveness. Convention participants, divided into groups of students, faculty, college administrators, district administrators and trustees, developed a list of ten indicators. Then a selection of measures for each indicator was made in self-selected discussion groups. These discussion groups had a mix of constituents, however it is noteworthy that for the top three indicators of college effectiveness, (Faculty Effectiveness, Student Satisfaction with Quality of Instruction, and Positive Faculty/Student Relationships) six out of nine measures agreed upon call for direct student reporting of their perceptions (Renkiewicz et al., 1988).

At a meeting of the Minnesota Collaboration for the Improvement of Classroom Instruction recently, Vincent Tinto asserted that "too much of our research does not capture student perceptions" (1996). Thus, in constructing a survey instrument, it was ultimately decided to consult students directly.
A search had been made for a survey instrument as surveys of student satisfaction with their educational experience are numerous. However, a review of such surveys revealed only one or two general questions regarding quality of instruction. A study of surveys used at Marshalltown Community College also produced no detailed questionnaire on quality of instruction. Surveys of students taken by the college include the New Student Survey of Academic Expectations (entry) and Sophomore Survey of Perceived Academic Achievement (exit) and the Marshalltown Community College Student Satisfaction Survey referred to earlier. In the first two surveys no questions pertained to student opinion on quality of instruction. In the Marshalltown Community College Student Satisfaction Survey one subdivision is Teaching and Learning. Responses of Very Satisfied, Satisfied, Neutral, Dissatisfied, Very Dissatisfied, and Does Not Apply/No Opinion are available. The four issues to be labeled by the students using these responses are 1) quality of instruction 2) out-of-class availability of instructors 3) attitude of the faculty and staff toward students 4) variety of courses offered at this institution. Although items 1,2, 3 deal with instructor effectiveness, they are very broad.

Another instrument available at Marshalltown Community College is a detailed 27 item questionnaire formulated by faculty and used to evaluate instructors since 1977. (Iowa Valley Community College District Board Policy Manual, 1977). In order to discover the traits and/or practices which students considered most significant as measures of instructor effectiveness, students were asked to select six items from the questionnaire to be included in a graduate study survey. To achieve a random sample of students for this project, all classes in Arts and Sciences listed in the Fall 1996 Schedule of Classes were numbered consecutively. Classes at satellite locations, or those taught on the Fiber Optic Network, individually arranged or developmental study skill classes, and certificate classes were excluded. Using a table of random numbers (Bolz & Tuve, 1973, p. 880), six classes were selected. A letter requesting permission to conduct the survey was sent to the Dean of Marshalltown Community College, Dr. William Simpson and
permission was granted. Letters requesting permission to conduct the inquiry in the selected classes were sent to the instructors. Permission was granted by all six instructors resulting in 76 student replies. Of these, two had to be rejected because of incorrect marking. The remaining 74 responses were tabulated and the eight items receiving the most votes were chosen for the survey. Five general questions were included in order to obtain certain demographic information.

A note on the content of the survey questions which resulted from this process seems appropriate. The researcher had attempted to select eight questions from the 27 items on the student evaluation form. Of the eight selected only three matched those selected by students, namely items 6 (The instructor's knowledge of the subject seems broad and accurate), 7 (The instructor establishes clear objectives for the class) and 13 (The instructor is available for help outside of class). Students selected no item concerned with grading, evaluating, or materials, and only one item relating to specific methodology that being 7 (The instructor establishes clear objectives for the class).

Administration of the Survey

The population involved in this study consisted of the students in Arts and Sciences of Marshalltown Community College for the Fall 1996 academic term attending classes taught by both full-time and adjunct instructors. A sample of these students was selected, based on classes they were currently attending, by referring to the Fall 1996 Schedule of Classes (Marshalltown Community College, 1996). Arts and Science classes taught by full-time instructors were numbered consecutively; then Arts and Science classes taught by adjunct instructors were numbered consecutively. Classes conducted at satellite locations or on the Fiber Optic Network, or individualized, arranged or study skill classes and certificate classes were excluded. Numbers were then selected from a table of random numbers (Bolz & Tuve, 1973, p. 880). Twelve classes taught by full-time
instructors and twelve classes taught by adjunct instructors were chosen for the pool of classes.

Instructors were sent letters asking permission to administer the survey during their class and a copy of the survey was included. Permission was granted to give the survey in six classes taught by full-time instructors and six classes taught by adjunct instructors. A fairly representative mix of times and subjects was achieved. All but one of the adjunct instructors were listed in the schedule by name. It was felt that not making the distinction of full-time or adjunct instructor for the students would allow their responses to be unaffected by that factor. Therefore, whether students were aware of their instructor's employment status as they answered the survey questions is an unknown.

Classes Surveyed

Full-time Instructor:

<table>
<thead>
<tr>
<th>Course</th>
<th>Time</th>
<th>Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition I</td>
<td>9:00 am</td>
<td>MWF</td>
</tr>
<tr>
<td>Intro to Sociology</td>
<td>1:00 pm</td>
<td>TR</td>
</tr>
<tr>
<td>College Algebra</td>
<td>11:00 am</td>
<td>MWRF</td>
</tr>
<tr>
<td>English Composition I</td>
<td>1:00 pm</td>
<td>TR</td>
</tr>
<tr>
<td>Desktop Publishing</td>
<td>1:00 pm</td>
<td>TR</td>
</tr>
<tr>
<td>Prin of Microeconomics</td>
<td>1:00 pm</td>
<td>MWF</td>
</tr>
</tbody>
</table>

Adjunct Instructor:

<table>
<thead>
<tr>
<th>Course</th>
<th>Time</th>
<th>Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal Environment of Bus</td>
<td>6:00 pm</td>
<td>R</td>
</tr>
<tr>
<td>English Composition II</td>
<td>1:00 pm</td>
<td>TR</td>
</tr>
<tr>
<td>Intro to Psychology</td>
<td>1:00 pm</td>
<td>TR</td>
</tr>
<tr>
<td>Prin of Speech</td>
<td>6:00 pm</td>
<td>T</td>
</tr>
<tr>
<td>American National Govm't</td>
<td>8:00 am</td>
<td>MWF</td>
</tr>
<tr>
<td>Intermediate Algebra</td>
<td>11:00 am</td>
<td>MWF</td>
</tr>
</tbody>
</table>

Completed surveys from students who had full-time instructors numbered 67 with 6 disqualified because of incorrect markings. Completed surveys from students who had adjunct instructors numbered 69 with one disqualification. Total completed surveys equal 129 or a 10.6% sample of the enrollment in Arts and Sciences for Fall 1996 of
1213 according to enrollment figures on file at Marshalltown Community college. Six full-time instructors equals 16.7% sample of full-time faculty and six adjunct instructors equals a 10.5% sample of adjunct instructors for the Fall 1996 term.

Assumptions of the Study
1. Students were able to take a class taught by either a full-time instructor or an adjunct instructor.
2. Students often do not know, at the time they enroll for a class, the employment status of many instructors because of the way they are listed in the class schedule.
3. Students often do not know, at the time they enroll for a class, the employment status of many instructors because of the time when classes are offered.
4. Students may or may not distinguish the employment status of their instructors.

Limitations of the Study
1. The results of this study are limited to instructors at Marshalltown Community College assigned to classes in Arts and Sciences in the Fall 1996 semester.
2. Student respondents were not selected at random although classes were.
3. No attempt was made to match full-time and adjunct instructors according to characteristics other than their employment by Marshalltown Community College.

Definition of Terms
Full-time Arts and Science instructor is one who is employed under a continuing contract and whose teaching load is 16 credit hours per semester.
Regular part-time instructor is one who is employed under a continuing contract and whose teaching load is 16 credit hours in two semesters.
Adjunct instructor is one who is employed without a continuing contract and whose teaching load does not exceed one-half time for two full semesters or three full quarters per calendar year.
Chapter 4

RESULTS

Demographics

A total of 136 surveys were completed. Of those 67 were from students of full-time instructors and 69 were from students of adjunct instructors. Six of the responses from full-time instructors' classes were disqualified for errors in marking and one of the responses from adjuncts' classes was disqualified for errors in marking. The number of responses used in determining outcomes, therefore, is 61 full-time and 68 adjunct for a total of 129.

The following table lists the responses to the demographic questions for full-time and adjunct instructors along with percentage breakdowns of those responses.
Table 1

Responses to Demographic Questions for Full Time and Adjunct Instructors

<table>
<thead>
<tr>
<th></th>
<th>Full-time instructor</th>
<th>Adjunct instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Class</td>
<td>61</td>
<td>68</td>
</tr>
<tr>
<td>2. Class standing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. First year</td>
<td>35 57.3%</td>
<td>37 54.4%</td>
</tr>
<tr>
<td>b. Second</td>
<td>19 31.1%</td>
<td>26 38.2%</td>
</tr>
<tr>
<td>c. Other</td>
<td>7 11.4%</td>
<td>5 7.3%</td>
</tr>
<tr>
<td>3. Student classification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Full-time</td>
<td>50 81.9%</td>
<td>54 79.4%</td>
</tr>
<tr>
<td>b. Part-time</td>
<td>11 18.0%</td>
<td>14 20.5%</td>
</tr>
<tr>
<td>4. Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. 18-20</td>
<td>35 57.3%</td>
<td>35 51.2%</td>
</tr>
<tr>
<td>b. 21-25</td>
<td>15 24.5%</td>
<td>9 13.2%</td>
</tr>
<tr>
<td>c. 26-35</td>
<td>5 8.1%</td>
<td>7 10.2%</td>
</tr>
<tr>
<td>d. 36-45</td>
<td>5 8.1%</td>
<td>12 17.6%</td>
</tr>
<tr>
<td>e. 46+</td>
<td>1 1.6%</td>
<td>5 7.3%</td>
</tr>
<tr>
<td>5. Estimated hours of study per week</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. 6 or more</td>
<td>4 6.5%</td>
<td>7 10.2%</td>
</tr>
<tr>
<td>b. 4-5</td>
<td>12 19.6%</td>
<td>17 25.0%</td>
</tr>
<tr>
<td>c. 3-2</td>
<td>23 37.7%</td>
<td>22 32.3%</td>
</tr>
<tr>
<td>d. less than 2</td>
<td>22 36.0%</td>
<td>22 32.3%</td>
</tr>
</tbody>
</table>
For the purpose of comparing numbers of responses between full-time and adjunct instructors mean scores for each item 6-13 were calculated. Means were obtained by assigning a number to each response as follows: a=4, b=3, c=2, d=1. Responses were tabulated, and means were obtained using the formula:

\[
\bar{x} = \frac{\sum x}{n}.
\]

Table 2 shows mean responses and rank order for full-time instructors and for adjunct instructors.

Table 2
Mean Responses and Rank Order for Full-time and Adjunct Instructors

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Full-time</th>
<th>Adjunct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Rank</td>
<td>Mean Rank</td>
</tr>
<tr>
<td>6. Knowledge of subject</td>
<td>3.52</td>
<td>2</td>
</tr>
<tr>
<td>7. Clear objectives</td>
<td>3.31</td>
<td>5</td>
</tr>
<tr>
<td>8. Subject presented understandably</td>
<td>3.31</td>
<td>6</td>
</tr>
<tr>
<td>9. Instructor enthusiasm</td>
<td>3.42</td>
<td>4</td>
</tr>
<tr>
<td>10. Instructor makes class interesting</td>
<td>3.09</td>
<td>8</td>
</tr>
<tr>
<td>11. Answers questions clearly and completely</td>
<td>3.27</td>
<td>7</td>
</tr>
<tr>
<td>12. Has respect for students</td>
<td>3.60</td>
<td>1</td>
</tr>
<tr>
<td>13. Available outside of class</td>
<td>3.52</td>
<td>3</td>
</tr>
</tbody>
</table>
Evaluation Responses (Items 6-13)

Items 6-13 of the survey asked students to evaluate instructors on effectiveness of their instruction as perceived by the students on a scale of a) excellent, b) good c) fair, d) poor. The responses to the survey on items 6 through 13 were tabulated on a spread sheet using Microsoft EXCEL version 5.0c. Expected frequencies were generated from the data, then the observed frequencies were entered and the chi-square statistic was calculated. The following tables show the calculations for each evaluation question.
Table 3

Chi-square Calculation for Survey Question 6: Knowledge of Subject

Observed Data ($f_0$):

<table>
<thead>
<tr>
<th>ANSWER</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJUNCT</td>
<td>54</td>
<td>11</td>
<td>2</td>
<td>1</td>
<td>68</td>
</tr>
<tr>
<td>FULL TIME</td>
<td>36</td>
<td>22</td>
<td>3</td>
<td>0</td>
<td>61</td>
</tr>
<tr>
<td>TOTAL</td>
<td>90</td>
<td>33</td>
<td>5</td>
<td>1</td>
<td>129</td>
</tr>
</tbody>
</table>

Null Hypothesis Expected Values ($f_e$):

<table>
<thead>
<tr>
<th>ANSWER</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJUNCT</td>
<td>47.44</td>
<td>17.40</td>
<td>2.64</td>
<td>0.53</td>
<td>68</td>
</tr>
<tr>
<td>FULL TIME</td>
<td>42.56</td>
<td>15.60</td>
<td>2.36</td>
<td>0.47</td>
<td>61</td>
</tr>
<tr>
<td>TOTAL</td>
<td>90</td>
<td>33</td>
<td>5</td>
<td>1</td>
<td>129</td>
</tr>
</tbody>
</table>

Chi Square Analysis: $X^2 = \sum [(f_0 - f_e)^2 / f_e]$

<table>
<thead>
<tr>
<th>ANSWER</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJUNCT</td>
<td>0.91</td>
<td>2.35</td>
<td>0.15</td>
<td>0.42</td>
<td>3.83</td>
</tr>
<tr>
<td>FULL TIME</td>
<td>1.01</td>
<td>2.62</td>
<td>0.17</td>
<td>0.47</td>
<td>4.28</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1.92</td>
<td>4.97</td>
<td>0.32</td>
<td>0.89</td>
<td>8.11</td>
</tr>
</tbody>
</table>

$x^2(3, n=129) = 8.11$, $p<.05$
Table 4

*Chi-square Calculation for Survey Question 7: Clear Objectives*

**Observed Data (f₀):**

<table>
<thead>
<tr>
<th>ANSWER</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJUNCT</td>
<td>38</td>
<td>23</td>
<td>4</td>
<td>3</td>
<td>68</td>
</tr>
<tr>
<td>FULL TIME</td>
<td>25</td>
<td>30</td>
<td>6</td>
<td>0</td>
<td>61</td>
</tr>
<tr>
<td>TOTAL</td>
<td>63</td>
<td>53</td>
<td>10</td>
<td>3</td>
<td>129</td>
</tr>
</tbody>
</table>

**Null Hypothesis Expected Values (fₑ):**

<table>
<thead>
<tr>
<th>ANSWER</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJUNCT</td>
<td>33.21</td>
<td>27.94</td>
<td>5.27</td>
<td>1.58</td>
<td>68</td>
</tr>
<tr>
<td>FULL TIME</td>
<td>29.79</td>
<td>25.06</td>
<td>4.73</td>
<td>1.42</td>
<td>61</td>
</tr>
<tr>
<td>TOTAL</td>
<td>63</td>
<td>53</td>
<td>10</td>
<td>3</td>
<td>129</td>
</tr>
</tbody>
</table>

**Chi Square Analysis:** \[ X^2 = \sum \left[ \frac{(f_₀ - fₑ)^2}{fₑ} \right] \]

<table>
<thead>
<tr>
<th>ANSWER</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJUNCT</td>
<td>0.69</td>
<td>0.87</td>
<td>0.31</td>
<td>1.27</td>
<td>3.14</td>
</tr>
<tr>
<td>FULL TIME</td>
<td>0.77</td>
<td>0.97</td>
<td>0.34</td>
<td>1.42</td>
<td>3.50</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1.46</td>
<td>1.84</td>
<td>0.65</td>
<td>2.69</td>
<td>6.64</td>
</tr>
</tbody>
</table>

\[ x^2(3,n-129) = 6.64, \ p<.05 \]
Table 5

Chi-square Calculation for Survey Question 8: Subject Presented Understandably

<table>
<thead>
<tr>
<th>ANSWER</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJUNCT</td>
<td>35</td>
<td>22</td>
<td>7</td>
<td>4</td>
<td>68</td>
</tr>
<tr>
<td>FULL TIME</td>
<td>30</td>
<td>24</td>
<td>3</td>
<td>4</td>
<td>61</td>
</tr>
<tr>
<td>TOTAL</td>
<td>65</td>
<td>46</td>
<td>10</td>
<td>8</td>
<td>129</td>
</tr>
</tbody>
</table>

Null Hypothesis Expected Values ($f_e$):

<table>
<thead>
<tr>
<th>ANSWER</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJUNCT</td>
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<td>5.27</td>
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<td>68</td>
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<tr>
<td>FULL TIME</td>
<td>30.74</td>
<td>21.75</td>
<td>4.73</td>
<td>3.78</td>
<td>61</td>
</tr>
<tr>
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<td>65</td>
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Chi Square Analysis: $X^2 = \Sigma ((f_o - f_e)^2 / f_e)$

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$x^2(3, n-129) = 1.69, \ p<.05$
Table 6

Chi-square Calculation for Survey Question 9: Instructor Enthusiasm

Observed Data ($f_o$):

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<td>19</td>
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<tr>
<td>FULL TIME</td>
<td>30</td>
<td>27</td>
<td>4</td>
<td>0</td>
<td>61</td>
</tr>
<tr>
<td>TOTAL</td>
<td>74</td>
<td>46</td>
<td>8</td>
<td>1</td>
<td>129</td>
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</table>

Null Hypothesis Expected Values ($f_e$):

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<tr>
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<td>34.99</td>
<td>21.75</td>
<td>3.78</td>
<td>0.47</td>
<td>61</td>
</tr>
<tr>
<td>TOTAL</td>
<td>74</td>
<td>46</td>
<td>8</td>
<td>1</td>
<td>129</td>
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</table>

Chi Square Analysis: $X^2 = \sum [(f_o - f_e)^2 / f_e]$

<table>
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<tr>
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<td>0.71</td>
<td>1.27</td>
<td>0.01</td>
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<td>2.46</td>
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<tr>
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$x^2(3, n=129) = 4.66, \ p<.05$
### Table 7

**Chi-square Calculation for Survey Question 10: Instructor Makes Class Interesting**

<table>
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<tbody>
<tr>
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<td>12</td>
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<td>68</td>
</tr>
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<td>2</td>
<td>61</td>
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<tr>
<td>TOTAL</td>
<td>39</td>
<td>64</td>
<td>21</td>
<td>5</td>
<td>129</td>
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</table>

Null Hypothesis Expected Values (f₀):

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<th>B</th>
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<th>TOTAL</th>
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</thead>
<tbody>
<tr>
<td>ADJUNCT</td>
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<td>11.07</td>
<td>2.64</td>
<td>68</td>
</tr>
<tr>
<td>FULL TIME</td>
<td>18.44</td>
<td>30.26</td>
<td>9.93</td>
<td>2.36</td>
<td>61</td>
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<tr>
<td>TOTAL</td>
<td>39</td>
<td>64</td>
<td>21</td>
<td>5</td>
<td>129</td>
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</table>

**Chi Square Analysis:** \[ X^2 = \sum [(f_o - f_e)^2 / f_e] \]

<table>
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<th>C</th>
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<td>0.02</td>
<td>0.09</td>
<td>0.05</td>
<td>0.18</td>
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<td>0.04</td>
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</table>

\[ x^2(3,n-129) = 0.34, \ p<.05 \]
Table 8

Chi-square Calculation for Survey Question 11: Answers Questions Clearly and Completely

<table>
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</tr>
</thead>
<tbody>
<tr>
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<td>38</td>
<td>21</td>
<td>7</td>
<td>2</td>
<td>68</td>
</tr>
<tr>
<td>FULL TIME</td>
<td>23</td>
<td>32</td>
<td>6</td>
<td>0</td>
<td>61</td>
</tr>
<tr>
<td>TOTAL</td>
<td>61</td>
<td>53</td>
<td>13</td>
<td>2</td>
<td>129</td>
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Null Hypothesis Expected Values ($f_o$):

<table>
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<th>C</th>
<th>D</th>
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</thead>
<tbody>
<tr>
<td>ADJUNCT</td>
<td>32.16</td>
<td>27.94</td>
<td>6.85</td>
<td>1.05</td>
<td>68</td>
</tr>
<tr>
<td>FULL TIME</td>
<td>28.84</td>
<td>25.06</td>
<td>6.15</td>
<td>0.95</td>
<td>61</td>
</tr>
<tr>
<td>TOTAL</td>
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<td>53</td>
<td>13</td>
<td>2</td>
<td>129</td>
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</tbody>
</table>

Chi Square Analysis: $X^2 = \sum [(f_o - f_e)^2 / (f_e)]$

<table>
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<td>1.92</td>
<td>0.00</td>
<td>0.95</td>
<td>4.05</td>
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<tr>
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<td>1.80</td>
<td>7.68</td>
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$x^2(3, n=129) = 7.68$, $p<.05$
Table 9

Chi-square Calculation for Survey Question 12: Has respect for Students

<table>
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<td>68</td>
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<tr>
<td>FULL TIM</td>
<td>40</td>
<td>19</td>
<td>1</td>
<td>1</td>
<td>61</td>
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<tr>
<td>TOTAL</td>
<td>89</td>
<td>33</td>
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Null Hypothesis Expected Values (f_o):

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<th>C</th>
<th>D</th>
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<tbody>
<tr>
<td>ADJUNCT</td>
<td>46.91</td>
<td>17.40</td>
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<td>1.05</td>
<td>68</td>
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<tr>
<td>FULL TIM</td>
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<td>15.60</td>
<td>2.36</td>
<td>0.95</td>
<td>61</td>
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<tr>
<td>TOTAL</td>
<td>89</td>
<td>33</td>
<td>5</td>
<td>2</td>
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</table>

Chi Square Analysis: \[ X^2 = \sum \left( \frac{(f_o - f_e)^2}{f_e} \right) \]

<table>
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<td>0.74</td>
<td>0.79</td>
<td>0.00</td>
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<tr>
<td>TOTAL</td>
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<td>1.40</td>
<td>1.50</td>
<td>0.00</td>
<td>3.09</td>
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</table>
Table 10

Chi-square Calculation for Survey Question 13: Available Outside of Class

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<tbody>
<tr>
<td>ADJUNCT</td>
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<td>6</td>
<td>2</td>
<td>68</td>
</tr>
<tr>
<td>FULL TIME</td>
<td>39</td>
<td>16</td>
<td>5</td>
<td>1</td>
<td>61</td>
</tr>
<tr>
<td>TOTAL</td>
<td>68</td>
<td>47</td>
<td>11</td>
<td>3</td>
<td>129</td>
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Null Hypothesis Expected Values ($f_o$):

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<th>C</th>
<th>D</th>
<th>TOTAL</th>
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<tbody>
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<td>5.80</td>
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<tr>
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<td>22.22</td>
<td>5.20</td>
<td>1.42</td>
<td>61</td>
</tr>
<tr>
<td>TOTAL</td>
<td>68</td>
<td>47</td>
<td>11</td>
<td>3</td>
<td>129</td>
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</table>

Chi Square Analysis: \( X^2 = \sum \left( \frac{(f_o - f_e)^2}{f_e} \right) \)

<table>
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<tr>
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<th>D</th>
<th>TOTAL</th>
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</thead>
<tbody>
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<td>0.01</td>
<td>0.12</td>
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**Analysis**

**Question Number**

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<th>11</th>
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<th>13</th>
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<tbody>
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<td>3.57</td>
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<td>3.43</td>
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<td>2.60</td>
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<td>3.40</td>
<td>3.20</td>
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</tbody>
</table>

**Figure 1.** Mean analysis of answers given by 18-20 year olds.

This figure shows a comparison of perceptions of 18-19-20 year old students or those who are traditional, continuing students.
ANALYSIS

QUESTION NUMBER

<table>
<thead>
<tr>
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<th>6</th>
<th>7</th>
<th>8</th>
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<th>11</th>
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<tbody>
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<td>3.09</td>
<td>3.36</td>
<td>3.61</td>
<td>3.27</td>
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</tbody>
</table>

Analysis of Answers of Students Age 21 and Older

![Bar chart showing mean answers for question numbers 6 to 13.](Image)

Figure 2. Mean analysis of answers given by students age 21 and older.

In this figure all age categories beyond the continuing students (the non-traditional students) are combined. This combination allows for comparison of continuing versus non-traditional students' perceptions. The figures which follow (numbers 3, 4, and 5) show mean scores of non-traditional students further subdivided by age.
Figure 3. Mean analysis of answers given by students who are 21 to 25 years old.
ANALYSIS

<table>
<thead>
<tr>
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<th>6</th>
<th>7</th>
<th>8</th>
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Figure 4. Mean analysis of answers given by students who are 26 to 35 years old.
**Analysis**

**Question Number**

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<td>4.00</td>
<td>4.00</td>
<td>4.00</td>
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</tr>
<tr>
<td>Mean Adj</td>
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<td>2.80</td>
<td>3.00</td>
<td>3.60</td>
<td>3.00</td>
<td>3.20</td>
<td>3.40</td>
<td>3.00</td>
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</table>

**Figure 5.** Mean analysis of answers given by students who are over 36 years old.
ANALYSIS

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</thead>
<tbody>
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<td>3.32</td>
<td>3.00</td>
<td>3.18</td>
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<td>3.68</td>
</tr>
<tr>
<td>Mean Adj</td>
<td>3.73</td>
<td>3.46</td>
<td>3.30</td>
<td>3.46</td>
<td>3.03</td>
<td>3.43</td>
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</table>

Analysis of Answers of First Year Students

Figure 6. Mean analysis of answers given by first year students.
ANALYSIS

QUESTION NUMBER

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<th>13</th>
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<tbody>
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<td>3.37</td>
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<td>3.16</td>
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<td>3.37</td>
<td>3.37</td>
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<tr>
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<td>3.35</td>
<td>3.31</td>
<td>3.73</td>
<td>3.12</td>
<td>3.38</td>
<td>3.81</td>
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**Figure 7.** Mean analysis of answers given by second year students
ANALYSIS

QUESTION NUMBER

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<th>13</th>
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</thead>
<tbody>
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<td>3.57</td>
<td>3.57</td>
<td>3.57</td>
<td>3.43</td>
<td>3.43</td>
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<td>2.60</td>
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![Analysis of Answers of Other Than First or Second Year Students](image)

**Figure 8.** Mean analysis of answers given by other than first or second year students
ANALYSIS

<table>
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</table>

**Analysis of Answers of Full Time Students**

![Graph showing analysis of answers given by full time students.](image)

**Figure 9.** Mean analysis of answers given by full time students.
**ANALYSIS**

**QUESTION NUMBER**

<table>
<thead>
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<td>Mean Adj</td>
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<td>2.71</td>
<td>3.29</td>
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**Figure 10.** Mean analysis of answers given by part time students.
ANALYSIS

QUESTION NUMBER

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<td>3.14</td>
<td>3.32</td>
<td>3.64</td>
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Figure 11. Mean analysis of answers given by students who study less than 2 hrs. week.
ANALYSIS

QUESTION NUMBER

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**Figure 12.** Mean analysis of answers given by students who study 2 to 3 hrs. week.
ANALYSIS

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![Analysis of Answers of Students Studying 4 to 5 Hrs per Week](image)

**Figure 13.** Mean analysis of answers given by students who study 4 to 5 hrs per week.
ANALYSIS

QUESTION NUMBER

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<tr>
<td>Mean Adj</td>
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<td>3.29</td>
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<td>3.57</td>
<td>3.29</td>
<td>3.71</td>
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</table>

Figure 14. Mean analysis of answers given by students who study 6 hrs. or more per week.
Chapter 5

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

The chi-square test for independence was used to measure the relationship between variables for each item of the survey asking students their perceptions of quality of instruction. At the .05 alpha level with df = 3 the critical region begins at a chi-square value of 7.81. Chi-square results for each of the items regarding teaching effectiveness are reported below.

Item number 6: The instructor’s knowledge of the subject seems broad and accurate. The obtained chi-square value of 8.11 is in the critical region. Therefore the null hypothesis, H₀, “There will be no significant difference in the student evaluation scores between those students who evaluate a full-time instructor and those students who evaluate an adjunct instructor on survey item number 6”, is rejected and the Alternate hypothesis, H₁, “There will be a significant difference in evaluation scores on survey item number 6 between those students who evaluate a full-time instructor and those students who evaluate an adjunct instructor” is accepted: \( \chi^2(3, n=129)=8.11, p<.05 \)

Students at Marshalltown Community College who responded to this survey indicate no perception of differences in the quality of instruction of full-time instructors and that of adjunct instructors except in the area of instructor knowledge of subject. However, further examination of the data indicates that the students ranked the adjunct instructors higher overall in their knowledge of subject when a comparison of mean or average scores is done. This was true for all demographic categories as well with the exception of the third-year-and-above students. This may not be surprising given the fact that adjunct instructors are hired because of their specific skill or training in a particular subject. This response may also reflect the high level of competence of adjunct instructors hired at Marshalltown Community college. Indeed, these results substantiate claims by adjuncts
themselves that they are "confident of the course subject matter" (Cohen, 1992, p. 3) or as adjunct John Mooshie reports, "I know the material." (Melia, 1990, p. 2).

Item number 7: The instructor establishes clear objectives for the class. The obtained chi-square value of 6.64 is not in the critical region. Therefore the null hypothesis, $H_0$, "There will be no significant difference in the student evaluation scores between those students who evaluate a full-time instructor and those students who evaluate an adjunct instructor" is accepted: $X^2(3,n-129)=6.64, p<.05$

Item number 7 addresses the issue of methodology more specifically than any other item on the survey and although the chi-square result supports the null hypothesis of no difference, the mean scores indicate that students rated adjunct instructors higher on this issue also. In demographic breakdowns adjuncts were also rated higher on this item by 18-20 year olds, first year students, second year students, full-time students, students who study less than two hours per week, students who study two to three hours per week, and those who study more than six hours per week.

Item number 8 The subject is presented in an understandable way. The obtained chi-square value of 1.69 is not in the critical region. Therefore the null hypothesis $H_0$, "There will be no significant difference in the student evaluation scores between those students who evaluate full-time instructors and those students who evaluate adjunct instructors" is accepted: $X^2(3,n-129)=1.69, p<.05$

Item number 8 shows the next to lowest chi-square result of 1.69 and mean scores 3.31 for full-time and 3.29 for adjunct instructors, an indication that students at Marshalltown Community College see little difference between these instructors' ability to make the subject understandable. It is worth noting, however, that this item ranks third to last in overall ratings from both groups.

Item number 9 The instructor is enthusiastic about the subject taught. The obtained chi-square value of 4.67 is not in the critical region. Therefore the null hypothesis
H₀, “There will be no significant difference in the student evaluation scores between those students who evaluate full-time instructors and those students who evaluate adjunct instructors” is accepted: $x^2(3,n=129)=4.66$, $p<.05$

Responses to item 9 dealing with instructor enthusiasm indicate that students perceive adjunct instructors as having more enthusiasm than full-time instructors although the difference in mean scores of 3.55 (adjunct) and 3.42 (full-time) is small. One might expect this result since adjuncts generally teach only one class in a subject area of particular interest to them. Demographically the most notable difference in mean scores is in the group of students who study more than six hours per week (3.86 ADJ to 3.25 FT).

Item number 10 The instructor makes the class interesting. The obtained chi-square value of .33 is not in the critical region. Therefore the null hypothesis, H₀, “There will be no significant difference in the evaluation scores between those students who evaluate a full-time instructor and those students who evaluate an adjunct instructor” is accepted: $x^2(3,n=129)=.34$, $p<.05$

Item number 10 reveals the smallest chi-square result on the survey (.33) but also is ranked lowest of the eight items by students of full-time and by students of adjunct instructors. Full-time instructors are given a slight edge over adjunct instructors by students on this item in total responses. Notable differences of opinion are held by third-year-or more students (3.43 FT, 2.60 ADJ), part-time students (3.55 FT, 2.71 ADJ) as well as by students who study more than six hours per week (3.00 FT, 3.57 ADJ).

Item number 11 The instructor answers questions clearly and completely. The obtained chi-square value of 7.69 is not in the critical region. Therefore the null hypothesis, H₀, “There will be no significant difference in the evaluation scores between those students who evaluate a full-time instructor and those students who evaluate an adjunct instructor” is accepted: $x^2(3,n=129)=7.68$, $p<.05$
Item 11 regarding instructors' answering of questions shows the second largest chi-square result (a result which would be significant at an alpha level of .10). Students of adjunct instructors ranked instructors 5th on this measure (3.39 mean score) while students of full-time instructors ranked those instructors 7th on this measure (3.27 mean score). No outstanding differences are noted by demographic groupings. Results on this item seem to reinforce the students' opinions of instructors' knowledge of subject matter as reported on item number 6.

Item number 12 The instructor has respect for the students. The obtained chi-square value of 3.09 is not in the critical region. Therefore the null hypothesis, $H_0$, “There will be no significant difference in the evaluation scores between those students who evaluate a full-time instructor and those students who evaluate an adjunct instructor” is accepted: $x^2(3, n=129)=3.09, p<.05$

Apparently respect by instructors is important to students as item number 12 ranked highest for students of full-time instructors and second highest for students of adjunct instructors with a relatively small difference in mean scores (3.60 FT, 3.63 ADJ). In demographic groupings the largest differences are in 2nd year students (3.37 FT, 3.81 ADJ) and part-time students (3.73 FT, 3.14 ADJ).

Item number 13 The instructor is available for help outside of class. The obtained chi-square value of 6.32 is not in the critical region. Therefore the null hypothesis, $H_0$, “There will be no significant difference in the evaluation scores between those students who evaluate a full-time instructor and those students who evaluate an adjunct instructor” is accepted: $x^2(3, n=129)=6.32, p<.05$

The results of item 13, which addresses instructor availability outside of class, may be unexpected since students at Marshalltown Community College indicate no difference in perception of instructor availability. This result may seem surprising given the fact that adjunct instructors teach one class only, have no offices, and generally arrive just before class and leave right after class. However, a look at mean scores or averages of scores
shows a more predictable result of higher scores for full-time instructors on this item (3.52 FT, 3.26 ADJ); however in rank order this item is 3rd for full-time and 7th for adjunct instructors. Demographically, the largest difference in perception of instructor availability is shown by students who are over 36 years old. These students rate full-time instructors with a 4.00 and adjunct instructors with a 3.00 mean score. This result no doubt reflects the likelihood that these students seek out instructors more readily than younger students. Samuel (1989) as noted earlier does believe that adjunct instructors are "willing to spend appreciable amounts of time in order to help them [students] understand the material" (p. 46). However as Spinetta (1990) notes, "Part-time faculty do not have the time or resources to work extensively with students outside of class" (p. 46). These results reinforce the arguments expressed in the literature that adjunct instructors need office space and perhaps additional incentives to hold specific office hours. Adjunct instructors at Marshalltown Community College do have a shared office and some do teach in the daytime hours. This may increase their availability to students.

A suggestion for increasing adjunct instructors' availability, as well as their sense of value is to increase their pay with the stipulation that they spend one hour of office time for every three hours of class time either just before the class meets or just after the class ends or one-half hour just before class and one-half hour just after class. For a class which meets in one hour segments the instructor could chose a day (or days) and announce that on this day (or on these days) she or he would be available in the adjunct office. For a class which meets for two or three hour segments the instructor could add an hour before or after class. For a three credit hour class calling for 39 class meetings this would add 13 hours of time to the adjunct instructor's expected contact time with students, therefore pay could be increased by one-third. At Marshalltown Community College adjunct pay is $400.00 per credit hour for beginning adjuncts and $500.00 per credit hour for advanced adjuncts (those who have taught more than 30 credit hours for
the institution). This would make pay for a three hour course by a beginning adjunct $1600.00 and pay for a three credit hour course for an advanced adjunct $2000.00.

Results from this particular study do provide partial answers to the questions raised earlier in this thesis. Nonetheless, these answers can be applied to students at Marshalltown Community College only. Do students perceive that they are receiving "equal educational opportunity"? At Marshalltown Community College they apparently do, with the exception of instructor knowledge of subject matter. Students at Marshalltown Community College who took part in this survey perceive that they are receiving "quality teaching" judging by the marks given both full-time and adjunct faculty with no rating below a mean score of 3.01. Students at Marshalltown Community College who participated in this survey do perceive that adjunct instructors are available to them for help outside of class. The questions of how much students are influenced in enrollment decisions by the college's use of adjunct instructors and whether students base decisions to discontinue college on their experience with adjunct instructors remain unanswered as they are beyond the scope of this study. We might infer a minimal influence but further study is needed to go beyond a generalized inference on these two issues.

As to Spinetta's and Samuel's concerns about "equal educational opportunities, privileges, and advantages" (Spinetta, 1990, p.47) or "differentiated and unequal" teaching services (Samuel, 1989, p.43) for students of full-time and adjunct instructors, the students at Marshalltown Community College who took part in this survey seem to be saying that they perceive no discriminatory difference. It seems from the students' responses to this survey that concerns about "damage [to] the reputation of the college in the community" (Bramlett & Rodriguez, 1982-1983, p. 40) resulting from students' perceptions of adjunct instructors' effectiveness may be allayed also.

This study does invite further study at Marshalltown Community College on other issues raised in the literature such as whether part-time faculty "achieve the same student
outcomes as full-time community college faculty" (McGuire, 1993). Another study at Marshalltown Community College might be a comparison of academic credentials and teaching experience of full-time and adjunct faculty. A survey of adjunct instructors regarding whether they perceive their status as "inferior" as reported by Richardson (1992) or a study of adjunct instructors' commitment to the institution could provide answers to these concerns. For this researcher item number 10 piques a curiosity about what students perceive as "interesting." How to measure the ways in which an instructor makes a class interesting could be the subject of an entire study. Further, replication of this study is invited since these results are specific to Marshalltown Community College and its students.

Other studies are suggested by this one regarding the use and training of adjunct faculty. One possible follow up study might examine correlation of rates of attrition to numbers of classes under adjunct instructors. Another might compare the number of classes taken under adjunct instructors to the number of classes taken under full-time instructors by graduates. This kind of study would be of special interest in light of the trend toward increasing use of temporary or "contract" employees in business and industry today.

Compiling the survey questions through the process of asking students for their opinions about what qualities constitute the best measures of teacher effectiveness has brought several other issues to the attention of this observer. It is notable that of the eight questions voted most significant by students, one has to do with knowledge of subject matter (item 6), three with methods (items 7,8, and 11), and one with availability of instructors outside of class. No question surfaced about testing, grading, or materials-three areas of instruction which one might expect students to be more concerned about based on their importance to class outcomes. The remaining three questions create interest because of their emphasis on instructor responsibility in imparting knowledge i.e. instructor enthusiasm, instructor respect for students, and instructor ability to make the
class "interesting." These items provoke many questions themselves about student perception of the learning process. Focus groups might shed some more light on just what students perceive as "enthusiasm", "respect", and "interesting."

As for the importance of adjunct instructors as part of the information delivery system in the community college, what Maguire said in 1984 about the role of adjuncts becoming more important and controversial in future years certainly has proven accurate in the years since then. Predictions are that the current ratio of full-time to adjunct instructors of 40 to 60 will continue (Cohen, 1995). Cautions are certainly in order, but this student survey at Marshalltown Community College seems to support Barton's belief that "the effective use of part-time faculty represents an opportunity rather than a threat" (Barton, 1990, p. 45).
References


Conference "Enhancing the Quality of Teaching in Postsecondary Institutions: Challenges for the 90's," Charleston, SC.


APPENDIX A

Letter Requesting Permission To Conduct Survey

Marshalltown Community College
Marshalltown, Iowa 50158
October 31, 1996

Dr. William Simpson, Academic Dean
Marshalltown Community College
3700 South Center Street
Marshalltown, Iowa 50158

Dear Dr. Simpson:

I am currently undertaking a research study required for completion of the Education Specialist degree at Drake University. I wish to conduct a survey regarding student perceptions of quality of instruction by both full-time and adjuncts instructors in a community college setting. I will conduct a preliminary survey of students in randomly selected classes to obtain their input into the construction of the final survey instrument. I plan to survey ten classes, five taught by full-time instructors, and five taught by adjunct instructors. Selection of classes will be random and classes will be identified by a code for purposes of the study.

My purpose in writing is to ask permission to conduct such a survey in the Fall 1996 term. I will not profit from this research in any monetary way and confidentiality of both instructors and student respondents will be protected.

I will greatly appreciate the opportunity to survey students at Marshalltown Community College and request permission to do so. I will also ask permission of individual instructors when selection of classes is complete.

Enclosed is a copy of the survey questions I plan to ask.

Thank you.

Sincerely yours,

Louise Meakins, Instructor
APPENDIX B

Request to Instructors to Conduct Preliminary Survey

Date: October 31, 1996

To: Fellow Instructors

From: Louise Meakins

Re: In-class survey

I am conducting a research project for my Education Specialist degree and wish to ask for student input into the questions I will ask. May I request the students in one of your classes to take about five to ten minutes to respond to a question by filling in a scantron sheet? The class and meeting time are listed below.

Thank you for your help in this project.

Instructor: __________________________

Class: __________________________

Meeting time: __________________________
APPENDIX C

Preliminary Survey Script of Directions

1. Hand out eval questionnaire.

2. As part of a research project, we are asking for student input on the questions about quality of instruction. Please read the 27 items on this questionnaire used by students for instructor evaluation.

3. Hand out scantron forms.

4. From the 27 items please select the six you consider most accurately measure quality of instruction and mark the numbers of your choices on the scantron sheet. For example if you picked item 11, simply blacken the number 11 oval in column one. Please use a number 2 pencil. Thank you for your participation.
APPENDIX D

Request to Instructors to Conduct Survey

Date: November 25, 1996

To: Fellow Instructors

From: Louise Meakins

Re: In-class survey

I am conducting a research project for an Education Specialist degree and wish to ask students for their perceptions of quality of instruction. The survey I plan to give is attached to this request. All participants, both instructors and students, will remain anonymous. The only way instructors will be identified will be with the designation full-time or adjunct.

May I request the students in one of your classes to take about ten minutes to respond to the survey by completing an answer sheet during the week of December 2-6? Permission to give the survey to Marshalltown Community College students has been granted by Dr. Bill Simpson, Dean of Academic Affairs.

Class and meeting time are listed below. Please reply below and return to my box. Thank you for your help with this project.

Instructor: ____________________________

Class: ______________________________

Meeting time: ________________________
APPENDIX E

Student Survey of Quality of Instruction Script of Directions

This survey is being given as part of the requirement for a graduate degree. All respondents will remain anonymous. Do not write your name on the question form or on the answer form.

The first five questions ask for general information and the next eight ask for your opinion about quality of instruction. Answer those eight questions in regard to the instructor in this particular class. Circle the letter for your response on the answer sheet.

The letter to circle for the first question is ________ (a for full time instructor, b for adjunct instructor)

Thank you for your participation.
APPENDIX F

Survey of Student Perceptions of Quality of Instruction

This survey is part of a research project being conducted to fulfill requirements for a graduate degree. Respondents will remain anonymous and your responses to this survey will in no way influence your grade in this class. Please mark your responses on the answer sheet by circling the letter of your answer.

1. Class (code letter will be given by proctor)
   a. First year student
   b. Second year student
   c. Other

2. Your class standing
   a. First year student
   b. Second year student
   c. Other

3. Student classification
   a. Fulltime-12 or more credit hours this semester
   b. Part-time-11 or fewer credit hours this semester

4. Your age group
   a. 18-20
   b. 21-25
   c. 26-35
   d. 36-45
   e. 46+

5. How many hours per week do you estimate that you study for this class?
   a. 6 or more
   b. 4-5
   c. 3-2
   d. less than 2

The following questions ask for your evaluation of the instructor of this particular class. Circle the letter for the response which most closely matches your opinion.

6. The instructor's knowledge of the subject seems broad and accurate.
   a. excellent
   b. good
   c. fair
   d. poor
7. The instructor establishes clear objectives for the class.
   a. excellent
   b. good
   c. fair
   d. poor

8. The subject is presented in an understandable way.
   a. excellent
   b. good
   c. fair
   d. poor

9. The instructor is enthusiastic about the subject taught.
   a. excellent
   b. good
   c. fair
   d. poor

10. The instructor makes the class interesting.
    a. excellent
    b. good
    c. fair
    d. poor

11. The instructor answers questions clearly and completely.
    a. excellent
    b. good
    c. fair
    d. poor

12. The instructor has respect for the students.
    a. excellent
    b. good
    c. fair
    d. poor

13. The instructor is available for help outside of class.
    a. excellent
    b. good
    c. fair
    d. poor
Cross Country Tour

I would travel by
   a. car
   b. train
   c. plane
   d. motorcycle

I would prefer to visit
   a. Minneapolis
   b. San Francisco
   c. New York city
   d. New Orleans

I would stop at
   a. Everglades
   b. Grand Canyon
   c. Yellowstone
   d. Yosemite

I would like to go
   a. deep-sea fishing
   b. backpacking
   c. sailing
   d. skiing

My type of entertainment
   a. Comedy
   b. Magic show
   c. Musical
   d. Drama

Preferred attraction
   a. Disneyland
   b. Statue of Liberty
   c. Space Needle
   d. The French Quarter

Preferred fruit
   a. grapes
   b. peaches
   c. apples
   d. oranges
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<th>Preferred fruit</th>
<th>Preferred attraction</th>
<th>My type of entertainment</th>
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<th>I would stop at</th>
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<tr>
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<td>d. The French Quarter</td>
<td>d. Drama</td>
<td>d. skiing</td>
<td>d. Yosemite</td>
<td>d. New Orleans</td>
<td>d. motorcycle</td>
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</table>
Cross Country Tour

I would travel by
   a. car
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   d. motorcycle

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Cross Country Tour

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I would like to go
a. deep-sea fishing
b. backpacking
c. sailing
d. skiing

My type of entertainment
a. Comedy
b. Magic show
c. Musical
d. Drama

Preferred attraction
a. Disneyland
b. Statue of Liberty
c. Space Needle
d. The French Quarter

Preferred fruit
a. grapes
b. peaches
c. apples
d. oranges
Cross Country Tour

I would travel by
a. car
b. train
c. plane
d. motorcycle

I would prefer to visit
a. Minneapolis
b. San Francisco
c. New York city
d. New Orleans

I would stop at
a. Everglades
b. Grand Canyon
c. Yellowstone
d. Yosemite

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