

# THE SATISFACTION OF COMMUNITY COLLEGE STUDENTS REGARDING DISTANCE EDUCATION VERSUS TRADITIONAL EDUCATION

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## ABSTRACT

Over the past several years, traditional education at community colleges has vastly changed. This is largely due to the rapid changes in technology and transformations in education. Current technology has afforded many major colleges and universities the opportunity to provide students with off-site instruction through the use of distance education. This study addresses the following research questions: Is there a significant difference between the course satisfaction of community college students who received distance education instruction and the course satisfaction of community college students who received traditional instruction? Is there a significant difference between the course satisfaction of community college students who received distance education instruction and the course satisfaction of community college students who received traditional instruction by gender? First, the variable course satisfaction between community college groups produced a significant difference at a .01 Alpha level. Second, the variable gender did not produce a significant difference on the course satisfaction of community college students who were enrolled in distance education instruction courses when compared to their counterparts enrolled in traditional instruction courses.

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## Introduction

Distance education courses may appear to some students as relatively unproblematic and less challenging compared to traditional classroom instruction. However, many students may perceive distance education courses as less demanding or

easier than traditional education instruction. Students often assume that online courses require less class participation or involvement. Unfortunately, this is not the case. Students who lack the necessary technological and computer skills needed to be successful in a distance education course find it very hard to keep up and often become confused and fall behind. Success in a distance education course requires students to remain computer literate, prepared, discipline and well organized. These courses require hours of online usage and participation. If students are not willing to make such a commitment, then face-to-face classroom instruction may be their best alternative.

Although distance education is changing the face of community colleges, on-going studies are conducted continuously to determine whether or not students are satisfied with their distance educational experiences compared to their traditional educational experiences. Satisfaction relates to student perceptions of their ability to achieve success and to feel good about the outcomes (Keller, 1993). From this perspective, several studies have explored student satisfaction with online programs (Debourgh, 1998; Enockson, 1997; Johanson, 1996; McCabe, 1997). For example, Enockson (1997), in the study assessing distance education in a university setting, found that students were satisfied with online instruction because it provided flexibility and responsiveness to their learning requirements and expectations. Similarly, Johanson (1996), based on her study of an online classroom, concluded that students' satisfaction was positively impacted when (a) the technology was transparent and functioned both reliably and conveniently, (b) the course was specifically designed to support learner-centered instructional strategies, (c) the instructor's role was that of a facilitator and coach, and (d) there was a reasonable level of flexibility. In contrast, Debourgh (1998) found that student satisfaction depended more on the quality and effectiveness of the instructor and the instruction than on the technology. Carnevale (2000) found that distance education students look for many of the same things found in traditional courses including a knowledgeable professor, interaction with the professor, and additional features that create a feeling of community within the class.

### **Previous Studies**

More specifically, recent studies have been conducted to determine whether or not students were satisfied with distance education instruction compared to traditional education instruction based on gender, age, ethnicity and the number of distance education courses taken. There is a considerable amount of research that suggests that male and female college students experience the online environment differently (Allen, 1994; Barber, Sullivan, & Walker, 1997; Hawisher & Selfe, 1992; Selfe, 1990, 1999; Selfe & Selfe, 1994; Sullivan, 1999; Wojahn, 1994; Wolfe, 1999, 2000). May (1994) argued that distance education is better suited to the interest of men than women. May maintained that male distance education students may focus on their educational work, whereas female distance students feel more home responsibility as well.

Regarding age, student attributes related to academic success and satisfaction correlate with maturity (Allen, 1995; Dille & Mezack, 1991). Older students' age may be associated with expectations for higher levels of interaction and collegiality; both

activities may be limited in distance education and may therefore impact student satisfaction. Further, the majority of those enrolled in distance education programs are female and between the ages of 25 and 40 years old (Peruniak, 1983; Hiola & Moss, 1990). Regarding ethnicity, online students are typically White/Caucasian, while other cultures are more prevalent in traditional instruction. Additionally, if one looks at the number of classes that a student has taken, there is a marked drop-off of perceived barriers for students who have taken only one course compared to those who have taken no online classes. It may be that after experiencing just one online class, most students either overcome many barriers or realize that they had overestimated the barriers before taking any online courses (Muilenburg & Berge, 2005)

According to Bisciglia and Monk-Turner (2002), students who work full-time and attend class off-campus have a more positive attitude toward distance education learning when compared to others. They are also more likely to be motivated and willing to take other distance education learning courses when given the option.

Many students learn best through face-to-face or traditional interaction provided by professors and with interaction among students. Distance education often prohibits this interaction, making learning and direct involvement less personal. Students who lack the technological skills required for various types of distance education may fear approaching learning situations provided through nontraditional modes. Problems related to privacy issues, technological difficulties, and technology focus rather than content focus have been noted (Piotrowski & Vodanovich, 2000).

One of the leading factors that lessen the distance between instructors and students is the amount of communication that is conducted by instructors to students. Email is the most common form of electronic communication and should be used as required. However, it is the online presence of the instructor, the knowledge that the instructor is out there, that matters most to students (Smith, Ferguson, & Caris, 2002; Woods, 2002).

Murray (2001) has advice for those running online courses for keeping students enrolled. The first point is to train faculty. Before faculty can be effective and serve as a support structure to students, they must understand online pedagogy and the tools associated with an online education (OLE). These tools include email, discussion threads, chat rooms, and pushing course content. Faculty must also understand how to adopt new and emerging technologies related to OLE (Kagima & Hausafus, 2001). Another retention point is for administrators to give students significantly more specific information and advisement. Administrators must give potential students realistic expectations, and then let them decide if the distance learning modality is appropriate for them. Determining the technical skills that students possess upon entering the program may determine the success of those students in the program (Huang, 2002). There is little doubt that distance education students will surely master the technical tools and “become competent and skillful users of a variety of communication tools” (Anderson, 2001, p.76). Technical support must be easy to reach and available around the clock.

### **Statement of the Problem**

Research has shown that distance education courses offer a number of advantages over traditional classroom instruction. The problem of this study is to determine differences between community college students course satisfaction of distance education instruction vs. their counterparts student's course satisfaction of traditional education instruction. More specifically, this study is designed to determine if there were significant differences between the course satisfaction of community college students enrolled in distance education instruction and their counterparts who were enrolled in traditional education; if so, do these differences effect students' course satisfaction by gender, age, ethnicity, and the number of distance education courses taken.

### **Significance of the Study**

The results of this study will provide distance education instructors, administrators, educators, curriculum specialists, and other concerned individuals with data regarding the course satisfaction of community college students toward the use of distance education versus traditional education. Also, the findings of this study will help assist educators in developing teaching strategies that will assist noncomputer-literate students with the necessary skills and knowledge that they need to be successful in a distance education course. Further, this study will provide educators with approaches that will help students feel comfortable and confident about using technology when they are enrolled in on- and off-campus courses. Moreover, this study will provide data about how successful students feel about distance education versus traditional education environments; it will help assist students with the resources that they need to be successful in distance education courses. Finally, this study will also assist educators in learning new instructional methods that will help to enhance distance education instruction.

### **Research Questions**

This study addresses the following research questions:

1. Is there a significant difference between the course satisfaction of community college students who received distance education instruction and the course satisfaction of community college students who received traditional instruction?
2. Is there a significant difference between the course satisfaction of community college students who received distance education instruction and the course satisfaction of community college students who received traditional instruction by gender?

### **Research Hypotheses**

From the aforementioned research questions the following hypotheses were addressed:

HO<sub>1</sub>: There is no significant difference between the course satisfaction of community college students who received distance education instruction and the course satisfaction of community college students who received traditional instruction as measured by dimensions of the Distance and Open Learning Environment.

HO<sub>2</sub>: There is no significant difference between the course satisfaction of community college students who received distance education instruction and the course satisfaction of community college students who received traditional instruction by gender.

### **Assumptions**

The following assumptions were observed in this research investigation.

1. It was assumed that participants responded honestly and truthfully to the questions on the survey instrument.
2. It was assumed that responses received in the survey instrument were representative of others of the same population.

### **Definitions of Terms**

The following terms are defined for the purpose of this study.

1. *Age* – refers to an individual's time of existence in years.
2. *Communication* - refers to the way students and instructors remain in contact with each other through various media such as emails, virtual chat rooms, teleconferences, telephones, internet connections, and internet discussion boards or face-to-face.
3. *Community college*– refers to a two-year institution of higher education: use synonymously with union college.
4. *Course Satisfaction*- refers to whether or not students were satisfied with distance education instruction or traditional education instruction.

5. *Distance Education* – refers to education that takes place when the instructor and student are separated by space and/or time.
6. *Distance Education Courses* – refers to courses that are taken at locations taken away from community college campuses. That is, courses taken through electronic media.
7. *Distance Education Instruction* – refers to off-site instruction taken mainly through electronic media.
8. *E-Learner* - refers to students who learn through electronic media.
9. *Ethnicity* - refers to an individual's distinction by race, language, and cultural characteristics.
10. *Face-To-Face Instruction* – refers to on-site instruction; used synonymously with traditional education.
11. *Gender* – refers to an individual as a male or female.
12. *Number of distance education instruction courses taken* - refers to the number off-site courses taken at the time of the study.
13. *On-Site Courses* – refers to courses conducted traditionally on community college campuses.
14. *Off- Site Courses* – refers to courses taught electronically away from community college campuses; used synonymously with distance education instruction.
15. *Resources* – refer to outside factors that foster students' success such as tutors, the library, computer training, and counseling.
16. *Satisfaction* - refers to whether or not students prefer traditional classroom instruction or distance classroom instruction.
17. *Technology* - refers to current electrical and mechanical devices that distance education courses require students to have access to and knowledge of to be successful.
18. *Traditional Classroom Instruction* - refers to classrooms that are physically located in the college and mainly taught by the lecture, question, and test method.

19. *Traditional Education* – refers to education that takes place onsite and within the classroom; used synonymously to face –to- face instruction or education.
20. *Traditional Education Courses* – refer to courses that are taken on campus face to face with an instructor.

### Methodology

A survey design was used in this study. This specific type of research involved the distribution of a survey instrument to collect data from two groups of students: students enrolled in distance education instructional courses and students enrolled in traditional education instructional courses. Moreover, students who were enrolled in a community college during the fall semester of 2006 were randomly selected as research participants. The investigator evaluated the satisfaction of students regarding their enrollment in distance education instruction courses versus traditional education instruction courses at a community college in the southeast region of Texas. The community college is an open-admission, public institution of higher education offering associate degrees, certificates, academic preparation, workforce training, and lifelong learning opportunities that prepare individuals in diverse communities for life and work in an increasingly international and technological society. The community college consists of 40.8 % males and 59.2% females. Additionally, there are 37 % African Americans, 33.1% Hispanic, 9.9% Asians and Pacific Islanders, 16.8% White Americans and 3.3 % others. There were 1,572 students enrolled in distance education courses and 1,413 enrolled in traditional instruction settings, a total of 2,985 students. The sample population consisted of 120 students at Houston Community College-Pinemont Center. These students were randomly selected from courses during the fall 2006 semester. Selected courses included sixty students from two traditional education courses and sixty students from two distance education courses. Table 1 presents data relative to the gender of the sample population of community college student participants. Table 1 indicates that there were 27 (22.5%) male students who participated in the study. By contrast, there were 93 (77.5%) female students who participated in the study.

Table 1

*Distribution Table of Community College Respondents by Gender*

Gender	Frequency	Percentage
Male	27	22.5
Female	93	77.5
Total	120	100.0

Table 2 presents data relative to the age of community college sample population; Thirty six (30.0%) of the respondents to the survey were between the ages of fifteen and twenty-one, 36 (30.0%) of the respondents to the survey were between the ages of twenty and twenty four, 14 (11.7%) of the respondents to the survey were between the ages of twenty five and twenty-nine, 10 (8.3 %) of the respondents to the survey were between the ages of thirty and thirty four, 9 (7.5%) of the respondents to the survey were between the ages of thirty five and thirty nine, and 15 (12.5%) of the respondents to the survey were forty years old and older.

Table 2

*Distribution Table of Community College Respondents by Age*

Age	Frequency	Percentage
15-19	36	30.0
20-24	36	30.0
25-29	14	11.7
30-34	10	8.3
35-39	9	7.5
40+	15	12.5
Total	120	100.0

Table 3 presents data relative to the number of distance education courses taken by students. Fifty-seven (47.5%) of community college respondents in the study had never taken a distance education course; 25 (20.8%) of the respondents had taken one distance education course; 15 (12.5%) had taken two distance education courses; 9 (7.5 %) had taken three distance education courses; and 14 (11.7%) had taken four distance education courses. Fifty-seven (47.5%) of community college respondents in the study had never taken a distance education course before, however, this was their first distance education course.



Table 3

*Distribution Table of the Number of Distance Education Courses Taken by Community College Student Respondent*

Number of DE Courses Taken	Frequency	Percentage
None	57	47.5
One	25	20.8
Two	15	12.5
Three	9	7.5
Four	14	11.7
Total	120	100.0

### Results and Analysis

Data for the present study were statistically treated using a One-Way Analysis of Variance (ANOVA) and Multivariate Analyses. Whenever statistical differences were found, post hoc Schéffe tests were used to determine the source of the significance. The goal was to examine the differences between the two dependent variables on each of the independent variables to eliminate or reduce the influence of any outside variables that may distort the differences being studied (Gravetter & Wallnau, 2005). Research data collected for the study were submitted to a Statistical Package for the Social Sciences (SPSS) for statistical analysis. The hypotheses in this study were tested at the .05 probability level or better.

#### Examination of Hypotheses

HO<sub>1</sub>: There is no significant difference between the course satisfaction of community college students who received distance education instruction and the course satisfaction of community college students who received traditional instruction as measured by dimensions of the Distance and Open Learning Environment Scale (DOLES).

Presented in Table 4 are the One Way Analysis of Variance results for the difference between the course satisfaction of community college students who received distance education instruction and the course satisfaction of their community college counterparts who received traditional education. These data reflect a significant difference between the course satisfaction of community college students who received distance education instruction vs. those community college students who received traditional instruction as

measured by dimensions of the Distance and Open Learning Environment Scale (DOLES). A statistically significant difference was found in the course satisfaction of community college students ( $F = 2.853$ ,  $df = 119$ ,  $Sig < .05$ ) who received distance education instruction when compared to their traditional instruction counterparts who received traditional instruction at the .05 level. Thus, hypothesis one ( $H_{O1}$ ) was not rejected.

Table 4

*Distribution Table of the One-Way Analysis of Variance for the Course Satisfaction of Community College Students Who Received Distance Education Instruction and Their Counterparts Who Received Traditional Classroom Instruction*

Source of Variance	Sum of Squares	df	Mean Square	F	p
Between Groups	2.046	1	2.046	2.853	0.094
Within Groups	84.621	119	.717		
Total	86.667	120			

\*Significant at the .01 level

Presented in Table 5 is the mean difference of the course satisfaction of community college students who received distance education instruction and those who received traditional instruction. The results indicate that the mean of the course satisfaction of distance education instruction students was higher than the mean of the course satisfaction of traditional instruction students. Therefore, distance education instruction students were significantly more satisfied with their courses than were students enrolled in traditional instruction courses.

Table 5

*Distribution Table of the Mean Difference of Community College Students Who Received Distance Education Instruction and Their Counterparts Who Received Traditional Instruction*

Dependent Variables	N	Mean	Mean Difference	p
Traditional Instruction	60	4.03	.30	.01*
Distance Instruction	60	4.33		
Total	120			

\* Significant at .01 level

HO<sub>2</sub>: There is no significant difference between the course satisfaction of community college students who received distance education instruction and the course satisfaction of community college students who received traditional instruction by gender.

Presented in Table 5 are the Multivariate Analysis results for the difference in the course satisfaction of community college students who received distance education instruction when compared to their counterparts who received traditional instruction by gender. A statistically significant difference was not found ( $F = .025$ ,  $df = 119$ ,  $Sig > .05$ ). Thus, hypothesis two (HO<sub>2</sub>) was not rejected.

### **Discussion**

Answering the questions of this investigation, it was found that the course satisfaction of community college students enrolled in distance education instruction courses were more satisfied with their courses than were community college students enrolled in traditional instruction courses. Moreover, the variables of gender, age, ethnicity and the number of distance education taken on the two groups were not found to be significant at the .05 Alpha level. Findings in this study were unfavorable to those of Sounder (1993) and Wong (1990). Their research found that students were less likely to think there was a difference between a traditional instruction and distance-learning courses. However, according to Bisciglia and Monk-Turner (2002), and consistent with the findings of this study, students who work full-time and attend class off-campus have a more positive attitude toward distance learning when compared to others. Moreover, distance education learners are more likely to be motivated and willing to take other distance learning courses when given the option. Interestingly, Drennan, Kennedy, and Pirske (2005) found that among 250 students, their course satisfaction was more positively geared toward technology and an autonomous learning mode. Consequently, students may react differently to online learning environments, depending upon their skill levels, attitudes and employment status.

### **Conclusions**

The following findings were observed based on data analyses. First, the variable course satisfaction between community college groups (i.e., distance education instruction students vs. traditional instruction students) produced a significant difference at a .01 Alpha level. The mean difference between groups indicated that students enrolled in distance education instruction were statistically more satisfied with courses than were students enrolled in traditional instruction courses. Second, the variable gender did not produce a significant difference on the course satisfaction of community college students who were enrolled in distance education instruction courses when compared to their counterparts enrolled in traditional instruction courses. To extend the findings of this

study, the researcher recommends: Further research is needed to investigate the role of access to technology of minority students. This type of research will provide additional evidence as to why lower-income, minority, and underrepresented students are likely to be among those who may not have access to the technology or have the technological experience necessary to take advantage of distance education courses. A study should be conducted with populations of students to determine if there are student learning style differences for those who are enrolled in distance education courses and those enrolled in traditional instruction environments.

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