

## Graduate students' perceptions of online learning

LaVonne Fedynich  
Texas A&M University-Kingsville

Karen Sue Bradley  
Texas A&M University-Kingsville

Jack Bradley  
Texas A&M University-Kingsville

### ABSTRACT

Online education has definitely moved into higher education with new programs being added continuously. How can institutions ensure that they are offering quality programs? A vital source of information should come from the students who participated in this study. The purpose of this study was to gain insights into graduate students' perceptions regarding online learning. Two-hundred forty-nine (249) graduate students were surveyed to identify positive components that led to their satisfaction and perceived challenges that inhibited it. Findings from the study indicated that interaction, between students and with the instructor has a major impact on their satisfaction. Other challenges identified were sufficient learner support that linked to campus resources, and the need for varying instructional design and delivery to facilitate students' desire to learn. In contrast, students were highly satisfied with the clarity and organization of instruction using sufficient resources. The instructor's role was identified as being vitally important to students' satisfaction.

Keywords: online learning, graduate, perceptions, higher education, student satisfaction

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## INTRODUCTION

What factors contribute to learner success in an online environment? Because of advances in technology and the development of management systems, online learning has grown exponentially in the higher education environment. Fekula (2010) stated that universities and other preparation programs are now compelled to compete for a student population that is confident with technology, and know what they expect from it. Bonk (2004) reported that as such, the quality of online programs has continued to rise.

To emphasize the growth since 2003, Allen and Seaman (2005) reported from the Sloan Consortium Report, in 2003, 49% of Institutions included online learning in their strategic plans. That percent rose to 56% in 2005. In 2006 that number had grown to 74.2%. According to Allen and Seaman (2011), the 2011 Sloan report this percentage had increased to 65% representing 5.6 million students.

This study was designed to investigate the perceptions of graduate students related to their online experiences at a south Texas university. What factors in online courses affected students satisfaction?

## LITERATURE REVIEW

According to Vonderwell and Turner (2005), the convergence of developments in technology instruction and pedagogy has stimulated a new paradigm for teaching and learning. A plethora of research related to online learning has dated back to the beginning of the eighties and continues today. Powers and Rossman (1985) found that graduate student satisfaction is related to both faculty-student interaction, peer interaction, and a feeling of intellectual stimulation.

The work of Song, Singleton, Hill, and Koh (2004) stated that "...some participants indicated that they tended to think more deeply about the subject areas when responding in writing as compared to giving verbal responses...that they were able to continually reflect upon each other's reflections because of the public and permanent display of the discussion postings on the Web" (p. 61). Song et al. (2004) also found that course design, learner motivation, time management, and familiarity with technology, led to success while technology problems, lack of community, and time constraints served as barriers.

The research of Song et al. (2004) also identified both flexibility and convenience as strengths of online learning. Weaknesses were identified as the delay of responses, lack of community, difficulty understanding instructional goals, and technical problems. Consistent with the work of Powers and Rossman (1985), Ni (2013) found that interacting was important as participation was less intimidating for the more reticent students.

In general, Levin and Wadmany (2006) and White (2005) noted the literature emphasized the importance of research for improving online learning courses. Sahin and Shelly (2008) stated that student needs and perceptions should be considered central in designing, developing, and delivering online courses.

More recently Hong and Jung (2011) described the competencies of a successful online learner. Their results identified management skills as being most important. In contrast, Kim, Kwon, and Cho (2011) emphasized media integration and instructors' quality teaching to be the significant predictors of both social presence and student satisfaction. Hussein-Farraj, Barak, and

Dori (2012) attributed learning style to the development of positive perceptions of online learning. Arbaugh and Benbunan-Fich (2007), Flottlemesch (2000), Hong and Jung (2001), Moore (1993), and Zhoa, Lei, Chun Lai, and Tan (2005) emphasized student-student-instructor interaction to predict success.

Reigeluth (1999) reported the advent of online learning has changed the roles of both student and instructor. The instructor has to become the facilitator rather than what has been traditionally called the “sage on the stage!” The student and instructor has to share control of the learning

process and the student must learn to self-regulate. The majority of the instructor’s time will be determining how the course will be implemented. Content design shifts from “teacher initiative, control, and responsibility to shared control and responsibility” (p. 19). Goodyear, Salmon, Spector, Steeples, and Tickner (2001) identified eight roles for online teachers. These roles included a) process facilitator, 2) advisor-counselor, c) assessor, d) researcher, e) content facilitator, f) technologist, g) designer, and h) manager-administrator. Course design is developed prior to the beginning of the course. In planning, the roles of designing and implementing an online class that is meant to facilitate student-to-student interaction demands attention. The designer role focuses on worthwhile learning tasks and the process facilitator role is “concerned with facilitating the range of online activities that are supportive of student learning” (p. 69). The instruction has to construct situations, with available resources, that facilitate student-to-student interaction in order to build a sense of community.

## RESEARCH QUESTIONS

1. What effect does the instructional design and delivery of a course have on student satisfaction?
2. What effect do teacher roles, including feedback and assessment have on student satisfaction?
3. What student roles and responsibilities are important to a positive experience with an online class?
4. How effective are the management and support systems in providing services as needed?

## PARTICIPANTS

The sample for this study included all graduate students who volunteered to participate in the study. An online request was made and 249 students responded. This university offers Masters and Doctoral programs in the areas of 1. Agriculture, Natural Resources, and Human Sciences, 2. Arts and Sciences, 3. Business Administration, 4. Education and Human Performance, and 5. Engineering. The request for participation in the study was sent to students in all of these colleges.

## METHODOLOGY

This descriptive study involved an analysis of surveys of graduate students regarding their perspectives on online instruction. Two hundred forty-nine students, representing multiple colleges at a South Texas University participated in evaluating online instruction, using the survey which was completed online.

Design and Procedure

Data for the study was collected through the analysis of student perceptions of their experiences with online courses. Students with no personal experience in online courses were included in the study. Data for this study was collected through the analysis of student perceptions based on their personal experience with online learning. The survey, designed in a Likert Scale format for rating statements, related to four major topic areas. These include: instructional design and delivery, 2. assessment and feedback/instructor roles, 3. student roles and responsibilities, and 4. management and support systems. The nineteen statements on the survey were sorted into the above categories for purposes of addressing the research questions. However, when we sorted them, we found that many of the statements applied to more than one category. Table 2 shows the categories and identifies how they were grouped.

## RESULTS

### Demographics

Among the 249 graduate students with complete surveys, 38% were 20-29 years old, 28.5% were 30-39 years old, 20% were 40-49 years old and 11.6% were over 50 years old. There was obviously a significant age range in the participants of this study. Sixty-percent of the students revealed they had taken multiple courses online, 6.43% had taken three courses online, 9.2% had taken two courses online, and 24% had taken one course online. The sample was 61.45% female and 38.5% male. Table 1 reflects this data (Appendix).

The first research question that guided this study dealt with the effect of the instructional design and delivery had on student satisfaction. Results of the study indicate that participating graduate students generally are satisfied with their experiences in online courses. The greatest need identified was related to students having ample opportunities to interact with one another.

Table II (Appendix) shows that generally, students indicated their satisfaction with the instructional design and delivery of online courses. Only one statement had a total of more than 20% in the disagree and strongly disagree categories (item 6 dealing with peer interaction).

The second research question involves the effect of teacher roles, including feedback and assessment has on student satisfaction. Many of the same statements identified in Table II, regarding instructional design and delivery are the same when considering the effect of teacher roles. The instructor facilitates that desire to learn (item 5), by providing clear instruction (item 7), opportunities to interact in a variety of ways (items 6 & 8). The instructor facilitates student self-motivation (item 10) through the use of a variety of sources (item 15) meant to facilitate learning in students of diverse learning styles (item 14). Table III (Appendix) shows the data on other statements related to the teacher roles, including feedback and assessment and their effects on student satisfaction.

The instructor, based on the analysis of this study and the literature, has the most effect on student satisfaction because he or she is responsible for facilitating numerous processes. Table IV (Appendix) illustrates the student roles and responsibilities important to a positive online class experience. The fourth research question addresses the effects of management and support services on student satisfaction of online learning. Table V (Appendix) shows the effects of management and support services on student satisfaction.

## Discussion

These graduate students at this south Texas university are generally positive about their experiences with online courses. However, the vast majority of the 249 students (93.17%) agreed or strongly agreed that students have to be self-motivated to be successful in online programs. This raises the question of whether the instructor, the course design/delivery, and materials utilized should assist in motivating students. Table VI (Appendix) identifies the statements that displayed a high level of satisfaction. Table VII addresses the areas that students identify as their lowest levels of satisfaction.

Based on this data, the teacher role has been identified as being vitally important to students' satisfaction. The majority of statements (5 out of 6) related to the teacher's role. However, some of the ideas fell into more than one category, as it proved difficult to sort between teacher role and instructional design and delivery. Speaking of the multiple roles expected of the instructor, Kolloff (2001) stated "The design role becomes important in that the majority of the instructor's time is spent in determining how the course is to be implemented" (p. 1).

The program being responded to displayed lower degrees of satisfaction due to a need for more explanatory feedback to facilitate learning. This may be due to the size of classes, which vary significantly across colleges. Students new to online learning also may not be as adapted to the idea of student-to-student interaction, or self-initiated learning that is facilitated by the instructor.

Interaction was identified at the lowest level of student satisfaction in this study. Specifically, the item addressed students being provided with ample opportunities to interact with each other. Ferguson and DeFelice (2010) emphasized that "Live chat rooms, threaded discussions, and the use of blogs, combined with prompt responses to all email inquiries, are strategies that would provide opportunities for increased interaction" (p. 5). Burns (2013) extends that list to promote interaction by including podcasts, skype, Jing, and Wiki. Other suggestions include the use of a forum board for the students to interact with each other. This would address student-to-student interaction and reduce feelings of being isolated.

Generally, teachers can improve interaction by providing examples of the class material, demonstrating a sense of humor and simply personalizing the environment. Group projects can facilitate critical thinking, which is another item that displayed a lower level of satisfaction. Varying the type of activity can facilitate the student's desire to learn as they interact with the teacher and the students.

In reflecting on this study, it is important to remember that, in general, students at this south Texas university are generally positive about their online experience. In virtually every area students' responses that were considered lower for purposes of analysis actually involved 61% to 67.44%. The majority of students in this program responded in agreement.

## CONCLUSION

Understanding the elements of successful online programs can offer suggestions for instructors and students to facilitate improved online learning experiences. The following recommendations are offered:

1. Begin your online program with courses that have been instructionally designed to promote effective instruction.
2. Make professional development of instructors a priority. Are best practices being implemented online? Online instruction in graduate classes can provide an environment where active learning happens.
3. Incorporate both synchronous and asynchronous activities.
4. Incorporate multi-media.
5. Ask your students for their ideas.
6. Embed tutorials within the course.
7. Facilitate self-regulation of student learning.
8. Provide students with structured collaborations by embedding recurring activities that require conversation between partners.
9. Encourage students to dialogue about course assignments (exchange e-greeting cards).
10. Collect end of semester data from your students (Write a reflection on what you did well on and what you struggled with) to use for possible course changes.

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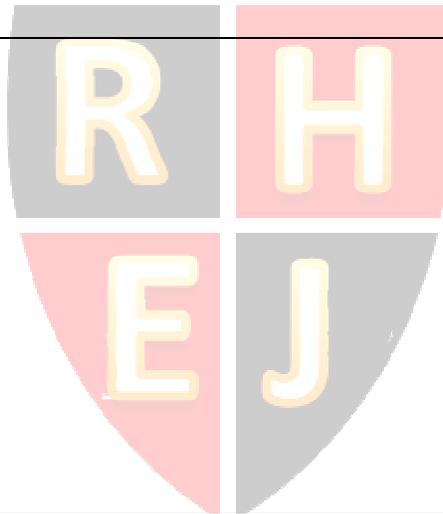
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**APPENDIX**

Table I. Variable Labels and Descriptive Statistics		
Variable Labels	Frequency N=249	% of Respondents
Online Experience:		
One course	N = 60	24%
Two courses	N = 28	9.24%
Three courses	N = 16	6.43%
Multiple courses	N = 150	60.24%
Gender:		
Male	N = 96	38.55%
Female	N = 153	61.45%
Student Category:		
Traditional Students	N = 127	51%
Non-traditional Students	N = 122	49%
Age:		
20-29 years	N = 99	39.76%
30-39 years	N = 71	28.51%
40-49 years	N = 50	20.08%
50 and older	N = 29	11.65%

Table II. Effects of Instructional Design and Delivery on Student Satisfaction					
Statement of the Item:	SA	A	N	D	SD
5. Online courses promote a students' desire to learn.	67(26.9%)	97(38.96%)	62(24.9%)	19(7.63%)	4(1.6%)
6. During online courses, students are given ample opportunities to interact with one another.	60(24%)	92(36.95%)	43(17.27%)	44(17.67%)	10(4%)
7. Online courses identify clear topics and provide instruction for completing assignments in a timely manner.	86(34.54%)	120(48.19%)	24(9.64%)	16(6.43%)	3(1.2%)
8. Online courses provide instruction in online discussion forums, chats, or	84(33.73%)	111(44.58%)	32(12.85%)	18(7.23%)	4(1.6%)

others used.					
10. Students have to be self-motivated to be successful in an online program.	169(67.87%)	63(25.3%)	10(4%)	4(1.6%)	3(1.2%)
14. Online courses facilitate learning in students of diverse learning styles and perspectives.	72(29.9%)	97(38.96%)	38(15.26%)	35(14.06%)	7(2.8%)
15. Online courses utilize a variety of sources that assist student learning (articles, links to websites, etc.)	91(36.55%)	101(40.56%)	39(15.66%)	15(6%)	3(1.2%)
16. Online courses provide multiple activities for students to develop critical thinking skills.	67(26.9%)	101(40.56%)	51(20.48)	26(10.44%)	4(1.6%)
(No= number of responses, SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree)					



Statement of the Item:	SA	A	N	D	SD
9. Online instructors provide explanatory feedback.	65(26.1%)	103(41.4%)	46(18.5%)	31(12.45%)	4(1.6%)
12. Online courses provide sufficient resources and contact information for the instructor/department.	84(33.7%)	121(48.59%)	31(12.45%)	10(4%)	3(1.2%)
13. Online courses provide access to a wide range of content.	65(26.1%)	108(43.37%)	52(20.88%)	19(7.63%)	5(2%)
16. Online courses provide activities for critical thinking.	67(26.9%)	101(40.56%)	51(20.48%)	26(10.44%)	4(1.6%)

17. Online courses provide for formative assessment and feedback.	67(26.9%)	102(40.96%)	45(18.07%)	29(11.65%)	6(2.4%)
18. Online instructors provide timely feedback.	63(25.3%)	114(45.78%)	40(16.1%)	25(10%)	7(2.8%)
19. During online courses, students are able to get help as needed.	76(30.52%)	95(38.15%)	45(18.07%)	27(10.84%)	6(2.4%)
(No= number of responses, SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree)					

**Table IV. Student Roles and Responsibilities Important to a Positive Online Class Experience**

Statement of the Item:	SA	A	N	D	SD
5. Online courses promote a students' desire to learn.	67(26.9%)	97(38.9%)	62(24.9%)	19(7.6%)	4(1.6%)
6. During online courses, students are given ample opportunities to interact with one another.	60(24.1%)	92(36.95%)	43(17.2%)	44(17.7%)	10(4%)
8. Online courses provide instruction in online discussion forums, chats, or others used.	84(33.7%)	111(44.58%)	32(12.85%)	18(7.23%)	4(1.6%)
10. Students have to be self-motivated to be successful in an online program.	169(67.87%)	63(25.3%)	10(4.02%)	4(1.61%)	3(1.2%)
(No= number of responses, SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree)					

**Table V. The Effects of Management and Support Services on Student Satisfaction**

Statement of the Item:	SA	A	N	D	SD
7. Online courses identify clear topics and provide instruction for completing assignments in a timely manner.	86(34.54%)	120(48.19%)	24(9.64%)	16(6.43%)	3(1.2%)
8. Online courses provide instruction in online discussion forums, chats, or others used.	84(33.73%)	111(44.58%)	32(12.85%)	18(7.23%)	4(1.6%)
11. Online courses contain sufficient learner support that links to campus resources.	58(23.29%)	99(39.76%)	56(22.49%)	31(12.45%)	5(2%)

12. Online courses provide sufficient resources and contact information for the instructor/department.	84(33.73%)	121(48.59%)	31(12.45%)	10(4%)	3(1.2%)
(No= number of responses, SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree)					

Table VI. Identified Highest Levels of Satisfaction	
Statement of the Item:	Strongly Agree & Agree
10. Students have to be self-motivated to be successful in an online program. (Student role)	93.17%
7. Online courses identify clear topics and provide instruction for completing assignments in a timely manner. (Instructional design, Teacher, Management and Support Systems)	82.73%
12. Online courses provide sufficient resources and contact information for the instructor/department. (Teacher role)	82.32%
8. Online courses provide instruction in online discussion forums, chats, or others used. (Management and Support systems, Teacher role)	78.31%

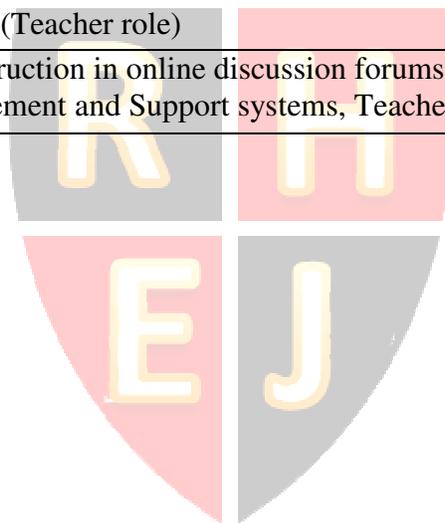


Table VII. Identified Lowest Levels of Satisfaction	
Statement of the Item:	Strongly Agree & Agree
6. During online courses, students are given ample opportunities to interact with one another. (Teacher Role, Instructional Design)	61%
11. Online courses contain sufficient learner support that links to campus resources. (Management and Support Systems)	63.05%
5. Online courses promote a students' desire to learn. (Instructional Design and Delivery, Teacher Role)	65%
9. Online instructors provide explanatory feedback. (Teacher Role)	67.47%
13. Online courses provide access to a wide range of content. (Teacher Role, Instructional Design and Delivery)	67.47%

16. Online courses provide activities for critical thinking. (Teacher Role, Instructional Design and Delivery)	67.47%
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### Survey Instrument

This survey is intended to explore issues related to online learning. Participating graduate students will reflect on the experiences they have had in online courses.

Item 1: Online course experience:

- a. I have taken one online course.
- b. I have taken two online courses.
- c. I have taken three online courses.
- d. I have taken multiple courses online.

Item 2:

- a. I am female.
- b. I am male.

Item 3:

- a. I am a traditional student.
- b. I am a non-traditional student.

Item 4:

- a. Between 20 and 29.
- b. Between 30 and 39.
- c. Between 40 and 49.
- d. Over 50

Directions: Below you will see a series of statements about online education. Please read each statement and select the choice that most clearly indicates how you feel about online learning. There are no right or wrong answers. If you neither agree nor disagree, select the neutral choice.

Item 5: Online courses promote a student's desire to learn.

- a. Strongly Agree
- b. Agree
- c. Neutral
- d. Disagree
- e. Strongly Disagree

Item 6: During online courses, students are provided with ample opportunities to interact with one another.

- a. Strongly Agree
- b. Agree
- c. Neutral
- d. Disagree
- e. Strongly Disagree

Item 7: Online courses identify clear topics and provide instructions for completing assignments in a timely manner.

- a. Strongly Agree
- b. Agree
- c. Neutral
- d. Disagree
- e. Strongly Disagree

Item 8: Online courses provide assistance on how to participate in online discussion forums, chats, or others used.

- a. Strongly Agree
- b. Agree
- c. Neutral
- d. Disagree
- e. Strongly Disagree

Item 9: Online instructors provide explanatory feedback that facilitates learning.

- a. Strongly Agree
- b. Agree
- c. Neutral
- d. Disagree
- e. Strongly Disagree

Item 10: Students have to be self-motivated to be successful in an online program.

- a. Strongly Agree
- b. Agree
- c. Neutral
- d. Disagree
- e. Strongly Disagree

Item 11: Online courses contain sufficient learner support that links to campus resources.

- a. Strongly Agree
- b. Agree
- c. Neutral
- d. Disagree
- e. Strongly Disagree

