Attitudes towards Distance Education and Hybrid Courses based on Quality of Student Experience

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Abstract

Universities offer more courses in the distance education format than ever before, due to a demand for convenience. But how does the quality of online instruction compare with the hybrid or face-to-face methods? Some course design and management features that lead to a good quality online course are briefly summarized.

When students have had some experience in self-learning, their opinions about online education may change. The paper includes results of a survey of over 400 students enrolled in introductory computer classes. Some of those surveyed have had an in-person lab section every week, taught by a graduate student. The others have been in a class where there is no face-to-face lab. The results compare attitudes towards distance education among students who have had experience in learning computer applications on their own (a hybrid setting) versus those who have learned in a traditional classroom setting.

Introduction

Learning any time, anywhere appeals to many people these days. Classes that do not require a specific meeting time will not conflict with a job or with a preferred sleep schedule. Online courses eliminate the hassles of travel, dressing up, and day care, and they replace the unpopular, large lecture format with individual time on a computer.

Consumers demand the online format because of its convenience, but they ultimately judge a course by its quality. An online course or program must have a quality advantage, a cost advantage, or both in order to survive in an increasingly competitive marketplace. Many universities are rushing to catch up with the online trend, creating new courses and converting their existing offerings to an online format, but other programs have disappeared in recent years, due to low demand. [3] (Elloumi, 2004).

What Constitutes Quality in Online Courses?

One measure of overall consumer satisfaction with online versus traditional courses is the dropout rate. The dropout rate for online courses is far greater than for face-to-face learning. [3], [8] (Pringle, 2002; Diaz, 2002) A learner is more likely to stick with an online course if it is soundly designed, with appropriate, achievable goals and clear directions for obtaining competencies. Naturally, course design features are important in all learning, but they are critical in an online format, where there is an inevitable feature of delayed, asynchronous communication. In addition, special technical support must be in place for successful online learning. In describing the details of what constitutes good quality design and support for online learning below, some examples are cited from personal experience as a graduate student in 6 different online and hybrid courses taken from 2002 to 2004.

Start with Clear Directions

Preparation is extremely important in an online course. Introductory materials, including system and hardware requirements for learners, information on how to access the course Web site, resources available for help and instructor contact information, should be provided before the course begins [2] (Caplan, 2004, 178-179). If these are supplied by email and in print versions for distance learners, as well as online in the course Web site, then some technological problems early in the course can be avoided. Students are then less likely to quit if they experience logon or other technical problems at the beginning of the semester. Students who are new to online learning have to learn the medium as well as the course material, and this can be a source of insurmountable frustration. Classes have been taught with little more introduction to the class Web support system than the exhortation, “Learn to use Ucompass right away. It is our classroom management platform.”

Everything that students need for the course should be available at the course Web site. If the syllabus, the assignment directions, or supplemental lecture slides, are only at the instructor's public Web site, while grades and discussion boards are only at the course Web site, students can easily miss out on important information.

Ideally, course plans and assignments should be posted before the course begins. Not only is this good strategy for avoiding the rush of preparing lessons during the semester while also managing the course, but also it lets learners pace themselves appropriately during the term. Posting a duplicate of the syllabus ahead of time in a publicly accessible Web site (besides the private course Web site) helps future students to know what they might expect, even before deciding to enroll. [2] (Caplan, 179)

In addition to providing a service to students, posting all course activities and information in advance is an efficient use of instructor time. It can eliminate the need for answering the same questions by email repeatedly.

Identify Entry-Level Skills

Some online courses, as well as some face-to-face courses, have been taught without clearly naming prerequisite courses, entry skills assumed and skills to be acquired during the course. It can take a learner longer in an online situation to discover that the course is too hard or too easy. S/he is then faced with the choice of dropping (usually forfeiting tuition money) or continuing in an unsuitable course.

Pat Rogers of Bemidji State University notes that BSU students must complete a formal orientation program before being allowed to enroll in any of their campus online courses. In this way, a much greater percentage of students are actually ready for an online experience. (Rogers, presentation for Center for Continuous Learning, October 2003)

Identify Course Goals and the Means to Achieve Them

Kathleen Hurley of the Distance Education Task Force at Minnesota State University, Mankato, has named three different generally accepted models of instruction for online instruction (lecture to Computer and Information Sciences Department, January 28, 2004), the "sage on the stage", the "guide on the side" and the entirely self-directed model. Along with the need to identify prerequisite coursework and skills, online learners would be better prepared for a course if they had some idea of which of these 3 learning styles will be used. Not to give such a preview (or warning?), leads to assumptions, misunderstandings, failure and higher drop-out rates among the online learners.

One course in particular, taught entirely online, concerned writing for the World Wide Web, which led the students to believe that they would learn to make Web sites and write effectively for them. No actual instruction was ever given in creating Webs. A book about writing HTML tags in a text editor was required for the course, which the students

were told to use. However, writing HTML code tags in a text editor is slow, clunky and error-prone. For this reason, most people, including the course instructor, don't use a text editor to create Web sites. They generally use Web page software, where they can see the result of a page as they create it. Appropriate, workable instructions were absent for this major skill required of the course, although students had assumed that this would to be taught. It is valid to require self-instruction for online learning, but students should be aware that this is expected of them, before they register.

Another course, taught mostly online, required students to make some short educational videos. Students checked out camcorders and then had to produce group and individual films as a major part of the course work. No in-person instruction in operating the camcorders was given. No book or online resources for editing were cited, and no hints for effective composition were supplied. Students felt that they were experiencing constructivist theory in action, creating their own knowledge. Here was another example in which not all students were aware that self-teaching was the main delivery mode for the course. Some students did acquire basic filming and editing skills, but others later complained that they did not learn how to accomplish this, because most of their course work had been done by other, more experienced team members from their class.

Use the Full Capability of the Internet in Instructional Design

Many instructors are still creating online courses by simply transferring the text of their existing lecture courses onto a course Web site. If a course consists solely of text, it is actually an example of online publishing, rather than of online learning [4] (Fein, 100). Teaching materials and methods need to be adapted to the needs of online learners. Limiting the course materials to text-only can lead to a poorer quality course than an in-person lecture, where at least there is the possibility of real-time interaction with the instructor and fellow classmates.

The use of interactive features such as email, chat, games, threaded discussion and team projects, adds to the quality of an online course because it puts the instructor in the role of a facilitator rather than a content provider. Requiring learners to post ideas and respond to the ideas of other students gives an instructor a better feel for of how well the learners understand the material. Students who are required to write thoughtful responses are doing more than just going through the motions of reading text and responding to test questions. Using multiple media types to present the same concept will address the learning styles of a wider variety of learners [4] (Fein, 104).

Relying on text as an educational resource does accommodate the learners who have slower Internet connections. However,still images and videos are becoming more important to engage a new generation of learners who are familiar with the Internet and may judge a course partly by its use of media (Pringle 1-3). Images and video segments do not have to be long to be effective in online learning. Rogers explains that short video clips have been used to good advantage in online courses to clarify assignments and concepts in a way that cannot be accomplished with text alone. (Rogers, 2003)

Provide Prompt Feedback

Lack of personal contact can be a quality concern online. This can be helped by regular, caring feedback. It does take considerable time to respond to student emails. An online instructor may have to set limits on how much time s/he can devote to communications.

Students need e-mail guidelines at the beginning of a course. If they are told when e-mails will be answered and advised ahead of time about delays in communication, they are less likely to feel ignored. One online course featured instant messaging at the course site. Sometimes students would try to reach the instructor through the instant message window, if they saw that she was online. She finally had to explain to everyone that she was far too busy to ever respond to personal instant messages, and that she must limit her course communication to email and to one hour of scheduled group chat per week.

Students do not perceive that they are receiving a quality online experience when regular feedback does not occur. One online course required 10 assignments, none of which were graded until the final week of the course. Of course, examples of poor design, lack of true instruction and paltry feedback can occur in face-to-face instruction, too. Because students are ultimately responsible for acquiring their own knowledge, self-teaching is part of any learning situation, whether in person or online. However, it is easier for students to get the guidance that they may need from a faculty member in person than online. Then, there can be the added advantage in face-to-face instruction of easy, instant collaboration with fellow learners. Part of the dissatisfaction with online courses is that faculty at a distance can be harder to reach and slow to respond, and this is reflected in the high online drop-out rates.

Provide Adequate Technological Support

In addition to organization and management needs that are common to all courses, the online courses require more technological services than do traditional courses. This includes adequate hardware for content delivery, dedicated help desk personnel to answer technological questions and a back-up plan for those times when technology fails [4] (Fein, 103). Faculty need to stay focused on the learner, not the course technology. If they must solve problems about why the online system does not work, their time is taken away from presenting the course content and interacting with students.

Faculty will need assistants when teaching online, because an online course workload is greater than for a face-to-face course. This enables faculty to respond to students individually and in a timely manner. Added to the increased time in course design, posting and student communications is the fact that the online format is unfamiliar to many faculty. Instructional design experts and Web experts can be important to the quality and success of an online program [2] (Caplan, 186-7). A well designed course

will lose value if it is not coupled with a suitable delivery strategy and a well thought out student support strategy [3] (Elloumi, 65).

Learner Characteristics Affect Quality Perception and Online Success

Factors that are completely beyond the control of the course designer, instructor and technical support include personal characteristics of online learners. Intuition suggests that younger adults just out of high school might lack the discipline and focus that is necessary for successful learning online. In fact, studies show that successful online students are generally older, have completed more college credit hours and more degree programs, and have a higher overall GPA than traditional students in face-to-face courses. [3] (Diaz, 2002).

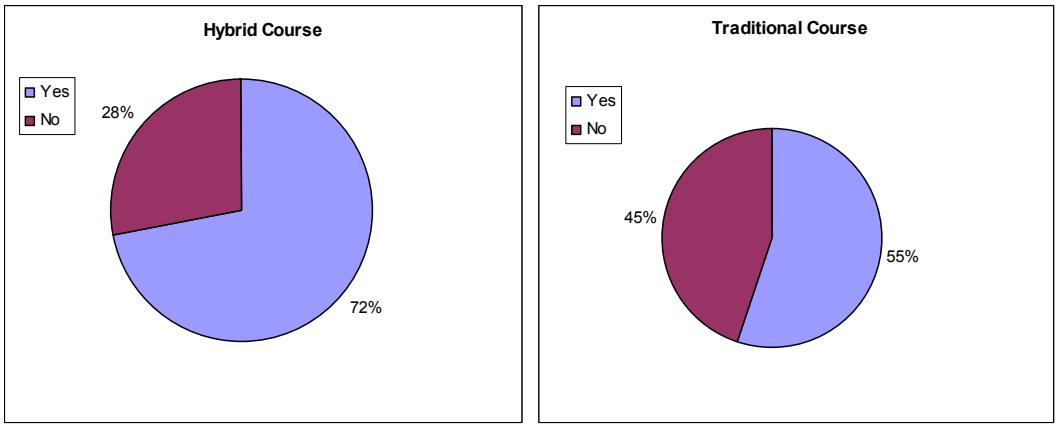
Do Students Want Online Courses?

Students in introductory computer courses at Minnesota State University Mankato were surveyed in February 2004 about their opinions of online learning. The total number of students participating was 291 in the hybrid introductory computer course (in which the students had to learn computer applications without an instructor present), and 143 in the course where the students learned Microsoft Office with a lab instructor present. Of these students, nearly all were under the age of 22 - 93% of the hybrid students and 87% of the traditional students. The percentage of students who were under age 20 was 60% and 56%, respectively, for these classes. Please see the Appendix for a copy of this survey. The results indicate that the students are very interested in online opportunities, but their responses also indicate they are not entirely positive about online course quality.

Student Experience May Affect Preference for Online Learning

Most of the students indicated that taking an online course at some point appealed to them. A significantly greater percentage of students from the hybrid course (who were experienced in some self-learning) desired an online course. See Figure 1 below.

Figure 1: Students Interested in Taking an Online Course "Some Time"



The reason for this difference might be that this group of hybrid students is already comfortable with learning some skills on their own. They might have even selected the hybrid course instead of the face-to-face introductory computer course because of their self-directed learning style.

Attitudes of Students Who Prefer Online Instruction

The results of opinions on the advantages of online learning are summarized in Table 1 below. By far, the most common advantage mentioned was scheduling convenience. Responses written by students, other than responses to be chosen from the survey list, included the desire to learn in a more "hands-on" style, independently (6); the desire to make more use of the computer in doing school work (5); being able to concentrate better alone (1) and the possibility of using personal notes to take tests and quizzes (1).

Table 1: Students Indicated These Advantages of Online Learning

Course	Self-Paced	Own Schedule	Anonymity	Better Discussions Online	Other	Total
Hybrid	81	199	5	2	9	296
Traditional	44	87	7	0	3	141

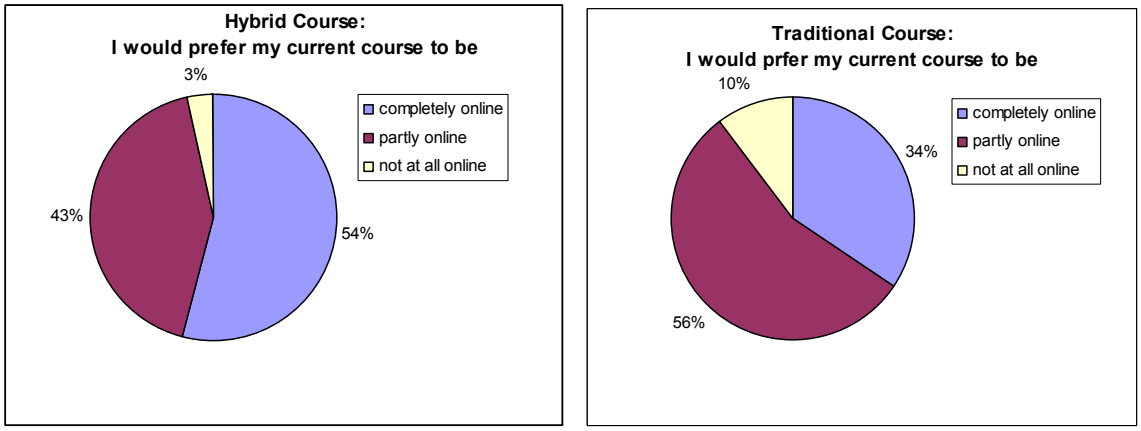
Some of the students (43 in the hybrid group and 19 in the traditional class) had already taken at least one online course. All except for 1 in the hybrid group and 1 in the traditional group were at least somewhat satisfied with their previous online course. When asked if they would rather take their current computer science course completely online, partly online or not at all online, most of the experienced students indicated that they would prefer an online environment, as summarized in Table 1.

Table 2: Experienced Online Students Who Would Prefer Their Current Course Online

Course	Prefer Online	Prefer Hybrid	Prefer Traditional	Total Students
Hybrid	39	4	0	43
Traditional	12	5	2	19

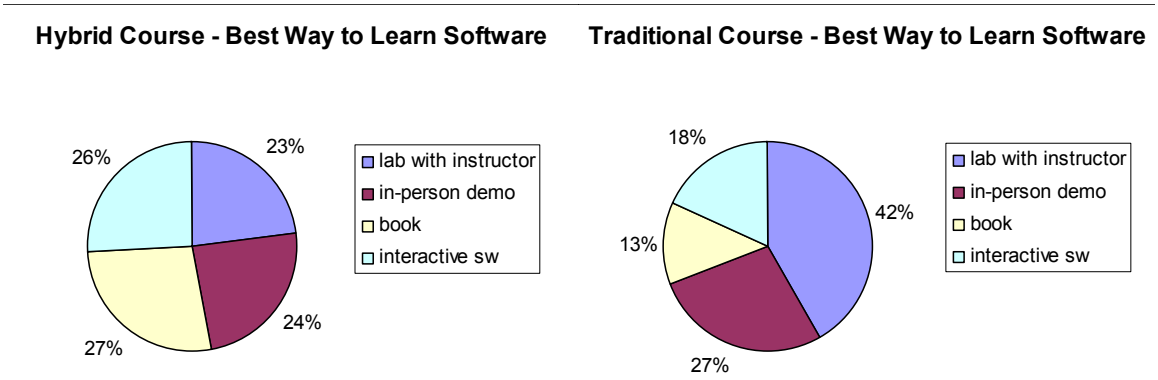
However, comparing the total group results for wanting the current computer science course to be online shows a lower percentage in favor of an online format. Figure 1 above shows that 72% of students in the hybrid course wanted to take some course online, but Figure 2 below shows that only 54% wanted their current course to be online. For the students in the traditional course, 55% wanted to take some online course, but only 34% wanted their current course to take place completely online. It is also significant that 97% of students from the hybrid course want at least part of their current course online, while 66% of those in the traditional course want some in-person learning.

Figure 2: Students Interested in Taking Their Current Course Online



The reason why online computer classes are less desirable than online general classes is because about half of the students prefer to learn software techniques with some help, as shown in Figure 3. A convenient schedule seems appealing, but many students in both groups believe that they learn software applications better with some in-person teaching.

Figure 3: Preferred Teaching Methods for Software Applications

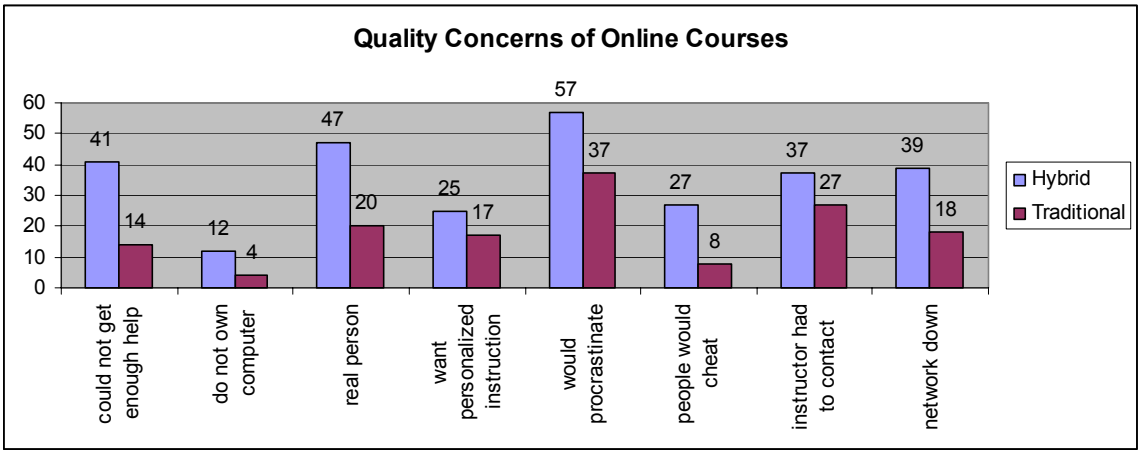


These percentages in Figure 3 correlate very well with the percentage of students who want their current course online, shown in Figure 2. In the hybrid course, 53% of students stated that they learned software best by using a book or interactive software, and 54% wanted to take their current course online. In the traditional course, only 31% of students stated that they learned software best by using a book or interactive software, and 34% of these students would prefer to study their current computer course online.

Attitudes Concerning Course Quality

Student opinions on the disadvantages of online learning are summarized in Figure 3 below. Students were asked to pick the most significant disadvantage from a list of choices.

Figure 3: Disadvantages of Online Courses



Grouping together the choices "I could not get enough help," "I prefer a real person," "I want personalized instruction," and "the instructor would be hard to contact" 53% of the hybrid students felt that a personal contact was the most significant disadvantage in online learning, while 18% chose hardware issues ("no computer" or "network crash"), and 29% chose a social issue, "procrastination" or "cheating." Of the traditional students, the percentage citing various quality concerns were very similar, with 54%, 15% and 31, respectively. It is significant that more of the traditional students than hybrid students (26% versus 20%) say that they would procrastinate if they took a course online.

Summary

Most students surveyed indicated that they were interested in taking an online course. The students with some experience in self-directed learning were more likely to want an online course format. Most students in this survey indicated that they were attracted to the online format for its convenience and self-paced learning, but the percentage of students desiring some online course was only 55% for those in the traditional course, who did not learn computer applications on their own time.

The self-learning experiences of those in the hybrid course might have shaped some of their opinions. Fewer students wanted their current computer science course to be entirely online than wanted some course online at some time in the future. Slightly more than half of the students from the course that requires some self-learning would prefer that their current computer course were online, while only one-third of the students from the traditional face-to-face course would prefer this format. Almost all of the students (97%) in the hybrid course valued the convenience of having at least some of the course posted online. Fewer students in the traditional course (66%) stated that they wanted at least part of their computer course to be online.

It should be noted that this survey mostly reflects the opinions of students who have learned some class materials online and on their own time, but most of them have not taken a course that was conducted entirely online.

It is important to consider that demand for online instruction may change over time. Convenience is a major draw, and most studies predict a large overall increase in the number of online learners in the future. However, if learners have a bad experience, this may negate the convenience factor, either for the online format itself or for an individual school's online offering. A course with poor design or inadequate support may not attract repeat business in the highly competitive online education marketplace today.

References

1. Bozarth, J., Chapman, D. D., & LaMonica, L. (2004). Preparing for Distance Learning: Designing An Online Student Orientation Course. *Educational Technology & Society*, *7*, 87-106. Retrieved February 4, 2004, from http://ifets.ieee.org/periodical/7_1/10.pdf

2. Caplan, D. (2004). The Development of Online Courses. In *Theory and Practice of Online Learning* (pp. 175-195). Athabasca, Alberta, Canada: Athabasca University. Retrieved March 7, 2004, from http://cde.athabascau.ca/online_book/pdf/TPOL_chp07.pdf

3. Diaz, D. P. (2002). *Comparison of Student Characteristics, and Evaluation of Student Success, in an Online Health Education Course*. Unpublished doctoral dissertation, Nove Southeastern University, Florida.

4. Elloumi, F. (2004). Value Chain Analysis: A Streategic Approach to Online Learning. In *Theory and Practice of Online Learning* (pp. 61-92). Athabasca, Alberta, Canada: Athabasca University. Retrieved March 7, 2004, from http://cde.athabascau.ca/online_book/pdf/TPOL_chp03.

5. Fein, A. D., & Logan, M. C. (2003). Preparing Instructors for Online Instruction. *New Directions for Adult and Continuing Education* , *100*, 45-55. Retrieved March 1, 2004, from http://www.jbp.com.

6. Lund , C., & Volet, S. (1998). Barriers to studying online for the first time: Students' perceptions . *Australian Society for Educational Technology Ed Tech Conference Proceedings*. Retrieved February 23, 2004, from http://www.aset.org.au/confs/edtech98/pubs/articles/lund.html.

7. Parker, N. K. (2004). The Quality Dilemma in Online Education. In *Theory and Practice of Online Learning* (pp. 385-421). Athabasca, Alberta, Canada: Athabasca University. Retrieved March 8, 2004, from http://cde.athabascau.ca/online_book/pdf/TPOL_chp16.pdf.

8. Pringle, M. M. *Putting a College Course Online - A Development Log*. (2002, March 25). Retrieved March 27, 2004, from http://webhome.crk.umn.edu/~mpringle/IDPaper.doc.

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Appendix

Survey Given to COMS 100 and COMS 101 Students

This survey will ask you for your opinions about courses that are taught in person, online and by a combination of these two methods. An online course is one where students do not meet in person more than one time during the semester. Instead of lectures or other class meetings, students in an online course have readings, discussion or chat, and assignments that are turned in over the Internet. COMS 101 is a combination of these two methods, because it meets for lectures, but the lab sections are done mostly on your own. *(Responses mentioned in this paper are indicated as – hybrid, - traditional numbers.)*

1. What your current status?
   - Freshman
   - Sophomore
   - Junior
   - Senior
   - PSEO (post secondary education option)
   - Graduate
   - Other
2. What is your age?
   - Under 18 *– 4, 4*
   - 18-20 *– 170, 75*
   - 20-22 *– 83, 44*
   - 22-25 *– 15, 11*
   - 25-28 *-6, 3*
   - 28-30 *-4 , 0*
   - over 30 *-6, 4*
3. Select your gender.
   - Female
   - Male
4. The computer science course that I am now enrolled in is
   - COMS 100 *- 291*
   - COMS 101 *- 145*
5. Do you have your own computer at college?
   - Yes
   - No
6. During an average week, how many hours do you use a computer for course-related work?
   - Less than 5 hours
   - Between 5 and 10 hours
   - Between 10 and 15 hours
   - Over 15 hours
7. Identify the primary reason you enrolled in this course.
   - It is required for my major
   - It is required for my minor.

This course was recommended to me as a good way to improve my skill and knowledge of microcomputers.
None of the above.

8. Identify the college where your major or first major is located
   Allied Health and Nursing
   Arts and Humanities
   Business
   Education
   Science, Engineering and Technology
   Social and Behavior Sciences
   I do not know the college my major is in.
   I do not have a major at this time.
9. Enter the name of your major or first major.
10. Enter the name of your minor or first minor. An example of a minor would be biology. If you do not have a minor at this time, enter undecided. If your major does not require a minor, enter NA.
11. If I had my choice, I would take my current computer science course _____.
    completely online – *163, 50*
    not online at all – *10, 15*
    partly online, as it is now – *129, 80*
12. It would be _____to learn the class material on Word, Excel, Access and PowerPoint mostly on my own, but with some class direction and review sessions.
    very easy
    easy
    somewhat difficult
    very difficult
    impossible
13. I would learn Word, Excel, Access and PowerPoint _____ if it were taught entirely online, but with email feedback from an instructor.
    better – *49, 17*
    just as well – *177, 86*
    worse – *17, 38*,
14. I would learn Word, Excel, Access and PowerPoint _____ if it were taught in a scheduled in-person lab, with an instructor present.
    better – *84, 48*
    just as well – *179, 90*
    worse – *17, 4*
15. The best way for me to learn new computer software is with _____.
    a person showing how - *70, 39*
    instructions from a book -*79 , 18*
    a lab with someone present to answer questions *67 , 59*
    interactive teaching software, including online teaching *-75 , 26*
16. I have taken one or more courses that were delivered entirely online.
    true – *43, 19*
    false – *247, 123*

17. I was _____ about my experience with the online course that I took.
    - very satisfied – *13, 16*
    - satisfied – *36, 15*
    - somewhat dissatisfied – *16, 7*
    - very dissatisfied – *1, 1*
    - mixed - took more than one online course.
    - can't answer because I have not taken an online course
18. Sometime I want to take a course that is entirely online.
    - true – *223, 87*
    - false – *66, 54*
19. The major advantage of having a course that is completely online is/are _____.
    - I can work on the course whenever I want, without having to commit to any schedule. – *199, 95*
    - I can work as fast or as slow as I like. *81, 44*
    - The quality of discussions is better, because students have time to think of good answers. *2, 6*
    - I like being anonymous and independent from my classmates. *5, 7*
20. Please list any other advantage(s) of an online course that are not listed above.
21. The major advantage(s) of having a course that is partly online and partly in person is/are _____.
    - I can have a more flexible schedule than a face-to-face course. *-75, 49*
    - I can still get help whenever I need it. *156, 67*
    - It seems more like I am dealing with an instructor, not a computer. *39, 16*
    - I like feeling connected to a class by class meetings. *12, 9*
22. Please list any other advantage of a course that is taught partly in person and partly online, that are not listed above.
23. The major advantage of having a course that is face-to-face is/are _____.
    - The instructor is always there for help.
    - It feels more like you are being taught by a real person than by a computer.
    - I feel like I am really in a class.
    - I like attending class with other students.
    - I learn things in lecture and discussion that aren't available in the book.
24. Please list any other advantage(s) of a face-to-face course that are not listed above.
25. Disadvantage of having a course that is completly online is/are _____.
    - I feel that a real person is not involved in teaching. *47, 20*
    - I want personalized instruction from the instructor. *25, 17*
    - The instructor would be hard to contact. *37, 27*
    - I could not get enough help with the assignments. *41, 14*
    - The network might cut me off or work too slowly. *39, 18*
    - I do not have my own computer, and it would be difficult to arrange enough computer time for an online course. *12, 4*
    - I would procrastinate and not get enough work done in the course. *57, 37*

People would cheat and have others do their course work for them. *27, 8*

26. Please list any other disadvantage of an entirely online course that are not listed above.
27. The major disadvantage of having a course that is partly online and partly in person is/are _____.
    I don't like attending class.
    I don't like learning things on my own.
    There is not enough direction.
28. Please list any other disadvantage of a course that is taught partly online and partly face-to-face, that are not listed above.
29. The major disadvantage of having a course that is face-to-face is/are _____.
    It is hard to find time in my schedule for a regular class meeting.
    I don't like having to learn at someone else's pace.
    I dislike the lecture format of many courses.
    Large courses are hard to sit through.
30. Please list any other disadvantage(s) of a face-to-face course.
31. Which online parts of COMS 101 do you use on Ucompass? Syllabus
    Yes
    No
32. Lecture notes and film questions
    Yes
    No
33. Announcements
    Yes
    No
34. E-mail within Ucompass
    Yes
    No
35. Assignment directions
    Yes
    No
36. Grades
    Yes
    No
37. It is _____ to cheat in an online course than it is in a face-to-face course.
    easier
    just as easy
    harder
    don't know
38. It is _____ work to be in an online course than it is to be in a face-to-face course.
    more
    just as much
    less
    don't know