STUDENTS' PERCEPTIONS OF ONLINE COURSES
The Effect of Online Course Experience

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While online learning is nothing new, research regarding student perceptions of online courses is limited and has generally focused on those who have taken online courses. Data were collected from 180 students taking criminal justice courses on campus at a large 4-year university in the Southwest and 100 students taking criminal justice courses in an online program at that same university. The analysis focuses on differences in perception between students who have taken online courses and those who have not. Results indicate that there are differences in perceptions by online course experience for the total sample, by the extent of online experience, for different age groups, and by the sex of the respondent.

INTRODUCTION

Distance education is a method of instruction that allows course instructors and enrolled students to use a variety of methods, some of which are driven by technology, for course delivery and the facilitation of learning (Valentine, 2002). Varieties of distance education include mail correspondence, television-based courses, and online instructional methods. Interaction between the instructor and students is critical, as it facilitates learning in the absence of face-to-face meetings in a classroom setting. Mail correspondence and television-based courses allow instructors and students to be separated by space and time; however, with the rapid development of technology and its availability for implementation and use on university campuses, simulcasts via the Internet can approximate the face-to-face interaction that students receive in the traditional classroom (Teaster & Blieszner, 1999; Valentine, 2002).

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It is due to the affordability and accessibility of technology for students—specifically computers and Internet access—that distance education through online means is growing at an exponential rate. Online course enrollments grew from 1.98 million in 2003 to 2.35 million in 2004 (Sloan Consortium, 2005). Furthermore, 3.5 million students reported taking at least one course online during the Fall 2006 semester, approximating a 10% increase from 2005 (Allen & Seaman, 2007). Because of this growth, it has been argued that using the Internet for course instruction is becoming part of the core emphasis at universities across the United States (Feenberg, 1999; Gaytan, 2007; Larreamendy-Joerns & Leinhardt, 2006), as the size and number of programs have expanded (Sloan Consortium, 2005). Some universities are even requiring that students enroll in a set number of online courses in order to obtain their degree (Gaytan, 2007; Golden, 2006). As of 2005, 63% of universities that offer undergraduate courses with the face-to-face method also offer online courses, whereas 65% of universities offering courses at the graduate level in the classroom also offer courses via the Internet. Furthermore, as of 2005, the majority of courses offered online in the United States were taught by full-time faculty members, as 74% of public universities utilized full-time faculty for online instruction (Sloan Consortium, 2005). Despite the research performed on this particular topic, a limited number of studies have been conducted on the perception of students towards online courses. Thus, the current study attempts to address this shortcoming by exploring the students' perception of online courses while comparing perceptions of those who have taken online courses and those who have not. Since it is likely that the volume of online courses will only grow in the future, it is important to understand the perceptions of those who are already taking those online courses as well as those who are potential students for those courses, including those currently enrolled in and taking courses in a traditional program.

DISTANCE EDUCATION: PAST, PRESENT, AND FUTURE

Correspondence courses, which rely on communication between course instructors and enrolled students via mail, are recognized as the first organized method of distance education. Although it has been noted that correspondence education first came into practice in Europe (Valentine, 2002), correspondence courses had beginnings in the United States in Boston and Chicago in the late 1800s (Gaytan, 2007; Nasseh, 1997). The courses were viewed as an excellent way of affording college-level education to residents of remote populations, and females who were primary caretakers within the home (Nasseh, 1997; Paolucci & Gambescia, 2007). Even within the student population residing close to urban campuses, correspondence courses gained popularity at the turn of the 20th century. For instance, the University of Chicago allowed students to complete as much as 30% of their degree requirements through mail correspondence (Gaytan, 2007; Holmberg, 1986; Storr, 1966; Watkins, 1991). In the early twentieth century, many college administrators endorsed correspondence education, and many universities followed the model set forth by the University of Chicago. However, the majority of faculty at universities throughout the country could not be enticed to engage in distance education through correspondence, as incentives, such as pay and a reduction of campus teaching and research responsibilities, were low, and in some circumstances, nonexistent (Burrell, 1991; Gaytan, 2007; Pittman, 1991; Watkins, 1991).

Despite the problems noted above, distance education through correspondence study continued to grow throughout the mid-20th century. Industries and the United States military expressed desire for workers and personnel to be college educated, and correspondence courses greatly aided this endeavor (Imel, 1996; Nasseh, 1997). After the conclusion of World War II, television instruction became commonplace in course delivery. This method

of instruction was preferable; course materials were presented on a schedule, in immediate fashion, and it greatly reduced the time students took to complete a course, as delays due to mailing course materials to students were eliminated. Cable television became a common mode of course delivery for television-based correspondence courses in the late 1970s and early 1980s, replacing poor quality, outdated programs commonly shown on public access television in the mid-20th century (Nasseh, 1997). The development of affordable video cassette recorders and videotapes in the 1980s afforded students more flexibility in completing television correspondence courses, as they did not have to rely on rigid television schedules, which defeated a central purpose of distance education (Moore & Lockee, 1998; Paolucci & Gambescia, 2007). Females enrolled in distance education courses at a higher rate than men in the 1980s and 1990s (Nasseh, 1997), possibly to attain university credit while remaining the primary caretaker within the home, as noted above. From 1995 to 1998, the number of students enrolled in distance education increased twofold (Devarics, 2001).

The use of the Internet in course delivery was slow to take hold in the mid 1990s, but in a relatively short time, the medium of online delivery has, in large part, replaced the methods described above. Whereas 22% of institutions used the Internet for course delivery in 1995, 60% used online technology during the 1997–1998 academic year (International Data Corporation Report, 1999). Currently, the predominant method of distance-based course delivery is by online means. With accessibility to and affordability for the technology required by this method, students are taking advantage of online course offerings. Dialogue between the course instructor and students is readily facilitated with ease when considering the current technology employed by distance education programs (Moore, 1989). Although the growth in course offerings by online means is growing rapidly, some 4-year universities are still reticent to implement programs on a broad scale. In fact, the majority of growth lies with 2-year associates-granting institutions, as they have accounted for over one half of enrollments in online courses in the last 5 years (Allen & Seaman, 2007).

In regard to the future, the primary goal among university administrators is finding a niche for distance education within universities (Paolucci & Gambescia, 2007). With the advent of online education, this mission is critical, as the majority of adult learning occurs through self-directed study (Hiemstra, 1982; Penland, 1977; Tough, 1971). Students, especially nontraditional students, are more likely to enroll in the coming years, as online classes afford flexibility and autonomy. However, faculty must be supported and rewarded for their contributions, and continually trained in regard to equipment use and "best practices" in course delivery and instructor-student interaction (Valentine, 2002). Stand-alone modules, which rely on simulations and multimedia via the Internet and less on interaction with instructors, will continue to be developed and implemented. Online distance education will continue to grow and develop as it affords students the opportunity to solve problems and master the fine details within their chosen field of study through intensive interaction (Gaytan, 2007; Larreamendy-Joerns & Leinhardt, 2006).

EXTANT LITERATURE— STUDENT PERCEPTIONS

As detailed below, previous research has found both positive and negative perceptions among students regarding online learning. Students have expressed satisfaction with the rigor and quality of online courses. Eighty-seven percent of the students surveyed by Wyatt (2005) reported that they were either somewhat or very satisfied with the online course. Further, 77% of them rated the quality of their experience as either good or excellent. One quarter of the students found the online course much more demanding than a tradi-

tional course in terms of academic rigor, with another 32% finding it slightly more demanding, and an additional 36% finding it as demanding (Wyatt, 2005). Students surveyed by Leonard and Guha (2001) also reported positive experiences regarding online learning. Sixty percent reported that the online course was more challenging than a traditional course. This same percentage believed that the online environment provided a better learning opportunity. Half of the respondents reported that they had more opportunity to interact with their fellow students online and 40% said that they participated more in online courses than in traditional ones.

Examining a sample of students who had both online and traditional classroom experience, Hannay and Newvine (2006) found that over half of the students surveyed reported that they felt they learned more in the online environment than in the traditional classroom. Students also reported that they were more likely to read for their online courses than for the traditional courses, with 92% saying they read for the online courses and just 57% saying they read for the traditional courses. Students in this study perceived that online courses were more difficult and of higher quality than traditional courses. Lastly, these students also reported that they would spend more time per week on an online course than a traditional one.

Comparing the perceptions of students in an online program to those in a traditional program, Daniels and Feather (2002) found that students with no online experience were less confident they could do well in an online course, perceived that there would not be enough opportunity for interaction with classmates online, that there might be an increased workload for an online course, and that an online course would not cover the same depth or breadth of material as a traditional course.

The positive comments regarding online learning most often focus on the convenience and flexibility of online courses in terms of scheduling. Grimes (2002) interviewed 13 students enrolled in a dental terminology course and concluded that their perceptions were generally positive. Students reported having learned a great deal in the course and enjoyed the convenience of completing the coursework at their own pace and at times that fit their family and work schedules. Business students surveyed by O'Malley and McCraw (1999) reported that online courses saved time and were more convenient for their schedules. Similarly, 81% of students taking an online marketing course agreed that the flexibility of online technology aided their learning of the course content (Stewart et al., 2004). In their examination of students enrolled in criminal justice courses, Hannay and Newvine (2006) found that most students opted for online course due to the time commitments, such as work and family, which made it difficult for them to come to campus for class.

Arguably, a further indication of the positive perceptions of online learning regards the willingness to repeat the experience. Eleven of the 13 students interviewed by Grimes (2002) reported that they would enroll in online courses in the future. Almost two thirds of the students enrolled in an online marketing course reported that they would take another online course (Stewart et al., 2004). Similar results have been found in other studies.

Student perceptions, however, have not been fully positive. Interviews conducted by Grimes (2002) indicated student frustration related to technical problems and that they lack a sense of belonging. Similar problems were reported by students in a study conducted by Lofstrom and Nevgi (2006), with problems with technology and feelings of isolation being reported as the greatest obstacles to online learning. O'Malley and McCraw (1999) found that students perceived that it was difficult to contribute to class discussion in both asynchronous and synchronous online courses. Business students examined by Wilkes, Simon, and Brooks (2006) also reported problems with discussion, in particular with the lack of opportunity for live interaction or discussion with both faculty and other students. Wyatt (2005), however, found no significant differences in student perceptions regarding

the level of interaction with faculty or students between online and traditional courses. There is some evidence that the mode of course delivery may impact student perceptions of online learning, with students being more favorable towards asynchronous course delivery when compared to synchronous delivery (O'Malley & McCraw, 1999).

In Lofstrom and Nevgi's (2006) study, instructors were more likely than students to perceive the learning experience online as more meaningful. They reported that students were more collaborative, more reflective, and better able to apply knowledge gained in an online course. Similarly, Baglione and Nastanski (2007) reported that faculty with experience teaching both online and traditional courses perceived that the online environment led to a more substantive discussion than did the traditional classroom. They opined that discussion was distributed more equitably and students were perceived as being less inhibited, possibly due to their anonymity in the online milieu.

In an examination of cheating in both traditional and online criminal justice and legal studies courses, Lanier (2006) found the behavior to be more common in online courses. While the majority of students in both environments reported that they had never cheated, this proportion was higher for traditional courses (80%) than for online courses (60%). Almost 40% of the online students admitted to helping others with exams, with only 14% of traditional students admitting to doing so. What is most relevant to the present study is the perception that students had that others were cheating in the online environment. Focus groups conducted by Lanier (2006) to supplement his survey findings indicated that "even students having a high GPA ('good students') feel pressure to cheat since they feel that a significant number of other students are cheating and to be competitive gradewise they too must avail themselves of dishonest means" (p. 259).

It is evident in previous literature that learning style as well as other personal characteristics might influence perceptions of online learning. Grimes (2002) found visual learners to be more favorable to the online environment than were auditory learners. Further, perceptions have been shown to be more favorable among students who are more willing to try new things and take risks and who have an internal locus of control (Drennan, Kennedy, & Pisarski, 2005). Age of the student might also matter. Some evidence suggests that older students might have more favorable views of online learning than do younger students (Wyatt, 2005). The review of the academic literature illustrates that although research has been conducted in this particular area of study, most of the academic contributions have focused on studies that do not include the perception of students. This is a crucial area that merits study as it is, after all, a student's perception that will depict their reality towards online education. As mentioned earlier, the purpose of this study is to address this gap in the academic literature.

METHODOLOGY

Self-administered surveys were distributed to students enrolled in upper division criminology and criminal justice (CRCJ) courses on a campus in the Southwest over a 2-week period in September 2007. The courses were purposely chosen based on the instructor's willingness to forgo class time to distribute the surveys. The courses surveyed are displayed in Table 1. Students were instructed not to complete the survey if they had already done so in another course. There were 180 completed surveys returned. During this same time period, the same survey was distributed to students participating in a CRCJ online completion degree program, partially housed at the same university. A link to the survey was sent via e-mail to the listserv of students in the program. In addition, some instructors agreed to post a link to the survey on their online course site. An initial e-mail and two follow-up e-mails were sent to the listserv, with the sur-

TABLE 1
Courses Surveyed on Campus

Department	*Course*
Criminology and Criminal Justice	Theoretical criminology
	Introduction to research methods in criminal justice
	Police management and administration
	The American judicial system
	Community corrections
	Institutional corrections

vey remaining operative online for a period of 3 weeks in September 2007. Students could only access the survey one time. There were 100 completed surveys from the online population. Unfortunately, it was not possible to compute response rates for either survey. It was unclear how many students had access to the online link since it was posted both to the listserv and on course sites. For the campus survey, some instructors did not keep track of the number of students present the day the survey was distributed. Further, some students present might have already completed the survey in another class.

Given that online courses are available to the on-campus students and that the online program is a completion degree program and not entirely online, respondents were asked if they had taken on campus courses and online courses. When examining these questions, 37% of the on campus students had taken at least one online course, while 97% of the students enrolled in the online program had taken at least one traditional course on campus. In light of this disjunction between program enrollment and online course experience, rather than comparing students enrolled in the on campus program to students enrolled in the online program, comparisons will instead be based on those who have taken an online course, whether they are in the online or on campus program, and those who have never taken an online course. If having the experience of taking online courses matters, this is the more valid comparison to be made.

The descriptive statistics for the total sample and for two subsamples are displayed in Table 2. As indicted, 57.1% of the sample had taken at least one course online. Of those who had taken an online course, 21.6% had taken only one, 28.1% had taken two to four courses online, and 50.3% had taken five or more online courses. For the total sample, there is a relatively even split between males and females; however, almost 60% of those who had taken an online course were female, while almost the same proportion of those who had not taken an online course were male. For the total sample as well as both subsamples, Whites were the most frequently represented racial/ethnic group, followed by Latino/as and African Americans, with those in the other category being the least frequently represented. The total sample was fairly evenly distributed among the three age categories; however, there were differences between the two subsamples, with the group who had taken online courses having a distribution that generally increased with each subsequent age classification and the group who had not taken online courses having a distribution that decreased with each subsequent age classification. When considering classification in school, the majority of the respondents were juniors or seniors. The "other" category was more heavily represented among the online students. This category included graduate students and non-degree-seeking students. As shown in Table 2, the majority of the respondents were CRCJ majors. In terms of employment, the majority of the sample and each subsample

TABLE 2
Descriptive Statistics of the Total Sample and Each Subsample of Online Course Experience

Variable	*Attribute*	*Total Sample*	*Taken Online Course*	*Not Taken Online Course*
Online course	Yes	57.1%	100%	—
	No	42.9%	—	100%
# Online courses	1	—	21.6%	—
	2–4	—	28.1%	—
	5+	—	50.3%	—
Sex	Male	48.2%	40.3%	58.8%
	Female	51.8%	59.7%	41.2%
Race/ethnicity	White	57.8%	64.2%	49.1%
	Hispanic/Latino/a	24.0%	17.6%	32.8%
	African American	12.4%	11.3%	13.8%
	Other	5.8%	6.9%	4.3%
Age	18–22	34.2%	20.8%	52.1%
	23–29	34.2%	34.0%	34.5%
	30+	31.7%	45.3%	13.4%
Classification	Freshman	1.4%	0%	3.4%
	Sophomore	4.3%	3.1%	6.0%
	Junior	39.0%	33.8%	46.2%
	Senior	47.7%	50.6%	43.6%
	Other	7.6%	12.5%	0.9%
Major	CRCJ	85.7%	84.8%	87.0%
	Other	14.3%	15.2%	13.0%
Employment	No/on campus	18.9%	16.3%	23.3%
	Off campus	79.6%	83.8%	76.7%
Computer skill	Beginner/intermediate	55.6%	47.5%	66.4%
	Advanced	44.4%	52.5%	33.6%

were employed off-campus, with a small proportion being either not employed or employed on campus. Lastly, 55.6% of the total sample self-assessed their computer skill level as beginner or intermediate, while 44.4% indicated that their skill level was advanced. The categories of beginner and intermediate were combined due to the extremely small number of respondents who reported that they were beginners. Those who had taken online courses were slightly more likely to identify as advanced in computer skill (52.5%) compared to beginner/intermediate, while a higher proportion of those who had not taken online courses identified as beginner or intermediate rather than advanced.

FINDINGS

Perceptions of online courses were initially measured by examining the responses of those who had taken online courses. The results for these varied items are displayed in Table 3. As shown, the majority of those who had taken online courses indicated that they either learned about the same in online courses (44.4%) or learned more in online courses (29.6%) than in traditional classroom courses. Also, 70.7% of those who had taken online courses indicated that those courses were either good (31.3%) or very high (39.4%) quality. It is worth noting that almost 23% reported that the quality of these courses was fair, with almost 7% reporting that they were not at all good quality. Just over half of those who had taken online courses reported that they preferred online courses, with 35.2% reporting that they preferred traditional courses and 14.5% reporting that they did not have a preference. Although not shown in the table, about three fourths of those in the online program reported they preferred online

TABLE 3
Assorted Perceptions of Those With Online Experience

Variable	*Attribute*	*Frequency*
Learning experience	Learned more in online courses	29.6%
	Learned about the same in online courses	44.0%
	Learned less in online courses	26.4%
Quality of course content	Not at all good quality	6.9%
	Fair quality	22.5%
	Good quality	31.3%
	Very high quality	39.4%
Preference	Traditional course	35.2%
	Online course	50.3%
	No Preference	14.5%
Most important reason for taking online course	Fit schedule, flexibility of hours	45.4%
	Job-related responsibilities	12.5%
	Family responsibilities	11.8%
	University too far from home	7.2%
	Ability to study at own pace	6.6%
	Traditional classes were full	2.0%
	Course only offered online	1.3%
	Other	13.2%
More online courses in future	Yes	81.8%
	No	18.2%

courses, while about three fourths of those in the on-campus program reported that they preferred traditional classes.

When asked the most important reason for choosing to take online courses, the most commonly given reason was that such courses fit their schedule due to the flexibility of hours. The next most common reasons were job-related responsibilities and family responsibilities, followed by the university being located too far from the respondent's home and the ability to study at one's own pace. Other reasons were that traditional classes were full, that the course was only offered online, that commuting to the university was a problem, that there were health-related reasons, and that the university was too far from work. Lastly, as indicated in Table 3, the majority (81.8%) of those who had taken online courses reported that they would take more online courses in the future. Considering these basic frequencies, it appears that those who have taken online courses generally view such courses favorably, although there is a somewhat substantial minority who do not seem to look so favorably upon such courses.

For the total sample, 16 items were included to assess perceptions of online courses compared to traditional courses. Respondents were asked how strongly they agreed or disagreed with each item, with 1 being strongly agree and 5 being strongly disagree. Results for *t* tests examining mean differences between the two subsamples (those who had taken online courses versus those who had not) for each of these 16 items are displayed in Table 4. The means, standard deviations, and *t* values are shown. As indicated, there were significant differences in perceptions between the two groups for 14 of the 16 items. The only items for which there were no statistically significant differences was confidence in completing a traditional course, with both groups generally agreeing with this item

TABLE 4
Difference in Means *t* Tests for Total Sample by Online Course Experience

Item	*Not Taken Online Course*	*Taken Online Course*	*t Value*
Online courses easier than traditional courses	3.30 (.97)	3.59 (1.25)	–2.134*
Traditional courses are easier than online courses	2.70 (1.04)	3.06 (1.10)	–2.743**
Students learn more in traditional courses	2.08 (1.15)	3.06 (1.34)	–6.292***
Students learn more in online courses	3.56 (0.90)	3.25 (1.06)	2.572*
Confident I can make good grade in traditional course	2.31 (1.21)	1.75 (1.23)	3.721***
Confident I can make good grade in online course	2.35 (1.20)	1.72 (1.14)	4.417***
Confident I can complete traditional course	1.73 (1.12)	1.55 (1.16)	1.290
Confident I can complete online course	2.35 (1.26)	1.55 (1.14)	5.494***
More interaction between students in online courses	3.79 (1.04)	3.43 (1.28)	2.490*
More interaction with instructor online	3.73 (1.14)	3.45 (1.33)	1.830
Online courses are too time consuming	3.13 (0.88)	3.63 (1.16)	–3.864***
Quality of online courses is not as good as traditional courses	2.49 (1.04)	3.45 (1.45)	–6.041***
Inconvenient to attend traditional courses	3.27 (1.12)	2.78 (1.38)	3.117**
Takes more effort to complete online course	2.93 (1.03)	2.63 (1.27)	2.053*
Technology used in online courses is too advanced for me	3.75 (1.11)	4.56 (0.91)	–6.596***
Would like to see more instructors put materials online	2.84 (1.21)	1.99 (1.21)	5.750***

Notes: Likert scale for responses: 5 = *strongly disagree.*
*$p < .05$. **$p < .01$. ***$p < .001$.

and the perception that there was more interaction with instructors in online courses, with both groups tending to disagree with this item. Although there were significant differences for most of the items, in most cases the difference represents the strength of the agreement/disagreement, not a different direction of agreement/disagreement. For example, both groups generally agreed that they were confident they could complete an online course, but those who had taken an online course more strongly agreed with this item than did those who had not taken an online course. One item for which the direction of the agreement differed concerned the quality of online courses. Those who had taken online courses disagreed that the quality of such courses was not as good as that of traditional courses, whereas those who had not taken online courses tended to agree with this statement.

It should be noted that students who had not taken an online course were more likely to agree that traditional courses are easier than online courses, but were also more likely to

agree that students learn more in traditional courses than in online courses. Students who had taken online courses were more confident that they could make a good grade in both traditional and online courses than those who had not taken an online course. They were also significantly more likely to agree that they could complete an online course. Respondents in both groups generally agreed that they would like to see more instructors put materials online, with those who had taken online courses significantly more likely to do so.

Respondents in both groups generally disagreed that online courses are easier than traditional courses, although those who had taken such courses more strongly disagreed. In terms of the interaction with others online, both groups generally disagreed that there was more interaction between students in online courses, with those who had never taken an online course more strongly disagreeing. Both groups also generally disagreed that online courses are too time-consuming and that technology used in online courses is too advanced for them, although for these items, those who had taken online courses more strongly disagreed.

One might expect the amount of experience with online courses to influence the perceptions of online education. The mean differences for the 16 perceptual items by number of online courses taken are displayed in Table 5. There are statistically significant differences for 11 of the 16 items. Students who have taken five or more courses online more strongly agree that they can make a good grade in a traditional course, that they can make a good grade in an online course, that it is inconvenient to attend traditional courses, and that they would like to see more instructors online. The five-or-more group was more neutral in regards to students learning more in online courses and in terms of the amount of interaction between students and with the instructor. The more experienced group more strongly disagreed than the others that students learn more in traditional courses, that online courses are too time consuming, and that the quality of online courses is not as good as traditional ones. There were no significant differences in mean perceptions by the number of online courses taken in terms of confidence in completing a traditional course, an online course, or that it takes more effort to complete an online course, with all three groups generally agreeing with these statements. All three groups generally disagreed that online courses are easier than traditional ones and that the technology used online is too advanced.

The differences in means were also assessed for each group by age. Results for these *t* tests are displayed in Table 6. There are statistically significant differences for the youngest age group (18–22) for only 2 of the 16 items. Those who had taken online courses more strongly disagreed that technology used online was too advanced for them, while they more strongly agreed that they were confident they could complete an online course.

While there were only four statistically significant differences for the youngest age group, there were eight statistically significant differences for the middle age group (23–29). Respondents who had not taken online courses more strongly agreed that students learn more in traditional courses and more strongly disagreed that students learn more in online courses. They were also less likely to express confidence that they could complete an online course. Respondents who had not taken online courses were more likely to disagree that there was more interaction with students online. Further, students who had not taken online courses generally agreed that the quality of online courses was not as good as traditional courses, while those who had taken online courses tended to disagree with this statement.

For the oldest age group (30–56), there were statistically significant differences for 9 of the 16 items. Regarding learning, respondents who had not taken online courses tended to agree that students learn more in traditional courses, whereas those who had taken online courses disagreed with this statement. Respondents who had not taken online courses expressed less confidence that they could make a good grade in a traditional course,

TABLE 5
Difference in Means by Number of Online Courses Taken

Item	*Number of Online Courses*			*F Value*
	1	*2–4*	*5+*	
Online courses easier than traditional courses	3.45 (1.18)	3.30 (1.30)	3.83 (1.17)	2.94
Traditional courses easier than online courses	3.12 (1.17)	2.58 (1.05)	3.32 (1.00)	6.77**
Students learn more in traditional courses	2.39 (1.25)	2.35 (1.15)	3.73 (1.12)	26.38***
Students learn more in online courses	3.73 (0.98)	3.60 (1.04)	2.86 (0.91)	13.25***
Confident I can make good grade in traditional course	2.03 (1.26)	2.14 (1.41)	1.44 (1.08)	5.52**
Confident I can make good grade in online course	2.24 (1.17)	2.05 (1.15)	1.34 (1.00)	10.38***
Confident I can complete traditional course	1.64 (1.27)	1.42 (0.88)	1.62 (1.29)	0.47
Confident I can complete online course	1.85 (1.25)	1.72 (1.18)	1.36 (1.07)	1.70
More interaction between students in online courses	3.94 (1.00)	3.53 (1.32)	3.14 (1.26)	5.06**
More interaction with instructor online	4.00 (1.09)	3.91 (1.25)	3.00 (1.29)	11.22***
Online courses are too time consuming	3.33 (1.02)	3.31 (1.30)	3.90 (1.05)	5.07**
Quality of online courses is not as good as traditional courses	2.82 (1.47)	2.57 (1.25)	4.13 (1.21)	24.74***
Inconvenient to attend traditional courses	3.03 (1.36)	3.14 (1.22)	2.50 (1.44)	3.64*
Takes more effort to complete online course	2.94 (1.37)	2.74 (1.14)	2.41 (1.21)	2.41
Technology used in online courses is too advanced for me	4.41 (0.95)	4.51 (0.86)	4.62 (0.95)	0.63
Would like to see more instructors put materials online	2.44 (1.32)	2.23 (1.17)	1.68 (1.13)	5.70**

Notes: Likert scale for responses: 5 = *strongly disagree.*
*$p < .05$. **$p < .01$. ***$p < .001$.

could make a good grade in an online course, and that they could complete an online course. Although they were less likely to agree, they did still generally agree with each item. Further, those who had not taken online courses tended to agree that online courses are too time-consuming and that the quality of online courses is not as good as traditional courses, while those who had taken online courses tended to disagree with both of these statements.

The results of *t* tests for each of the 16 items for both subsamples by sex for online course experience are displayed in Table 7. As shown, there were significant differences among males for 9 of the 16 items. Males who had taken online courses were more likely to agree that they could make a good grade in an online

TABLE 6
Difference in Means *t* Tests for Total Sample for Online Course Experience by Age

	18–22			*23–29*			*30–56*		
Item	*Not Taken Online Course*	*Taken Online Course*	*t Value*	*Not Taken Online Course*	*Taken Online Course*	*t Value*	*Not Taken Online Course*	*Taken Online Course*	*t Value*
Online courses easier than traditional courses	3.26 (1.02)	3.36 (1.25)	–.443	3.36 (0.87)	3.46 (1.37)	–.417	3.29 (1.07)	3.82 (1.13)	–1.630
Traditional courses easier than online courses	2.79 (1.06)	2.81 (0.93)	–.100	2.56 (0.97)	3.00 (1.18)	–1.890	2.64 (1.15)	3.20 (1.10)	–1.706
Students learn more in traditional courses	2.05 (1.19)	2.12 (1.14)	–.284	2.18 (1.14)	2.93 (1.27)	–2.912**	1.93 (1.07)	3.56 (1.23)	–4.609***
Students learn more in online courses	3.38 (0.92)	3.78 (1.04)	–1.930	3.82 (0.89)	3.34 (0.94)	2.487*	3.64 (0.75)	2.96 (1.05)	2.315*
Confident I can make good grade in traditional course	2.47 (1.31)	2.12 (1.29)	1.224	2.08 (1.11)	1.76 (1.33)	1.216	2.29 (0.99)	1.57 (1.11)	2.242*
Confident I can make good grade in online course	2.43 (1.28)	2.16 (1.14)	1.026	2.26 (1.19)	1.85 (1.32)	1.519	2.29 (0.83)	1.43 (0.90)	3.290**
Confident I can complete traditional course	1.89 (1.25)	1.47 (0.84)	1.689	1.62 (1.02)	1.56 (1.28)	.241	1.36 (0.63)	1.57 (1.20)	–.644
Confident I can complete online course	2.45 (1.31)	1.85 (1.25)	2.164*	2.26 (1.27)	1.63 (1.25)	2.371*	2.14 (1.03)	1.35 (0.96)	2.791**
More interaction between students in online courses	3.66 (1.08)	3.78 (1.04)	–.494	4.00 (0.89)	3.43 (1.19)	2.541*	3.79 (1.25)	3.29 (1.31)	1.304
More interaction with instructor online	3.55 (1.13)	3.91 (1.40)	–1.342	3.97 (1.08)	3.48 (1.27)	1.946	3.86 (1.29)	3.22 (1.31)	1.659
Online courses are too time consuming	3.16 (0.89)	3.30 (1.36)	–.612	3.26 (0.80)	3.66 (0.98)	–2.060*	2.64 (0.93)	3.76 (1.17)	–3.382***
Quality of online courses is not as good as traditional courses	2.56 (0.99)	2.47 (1.34)	.361	2.38 (1.14)	3.33 (1.37)	–3.525**	2.50 (1.02)	3.96 (1.33)	–3.890***
Inconvenient to attend traditional courses	3.41 (1.07)	3.23 (1.20)	.747	3.28 (1.17)	2.85 (1.32)	1.623	2.62 (1.04)	2.51 (1.42)	.245
Takes more effort to complete online course	3.11 (0.99)	2.81 (1.38)	1.221	2.79 (1.03)	2.65 (1.23)	.606	2.50 (1.09)	2.55 (1.27)	–.135
Technology used in online courses is too advanced for me	3.72 (1.09)	4.44 (1.01)	–3.092*	3.87 (1.20)	4.48 (0.99)	–2.690**	3.57 (1.02)	4.68 (0.79)	–4.559***
Would like to see more instructors put materials online	2.89 (1.20)	2.72 (1.28)	.622	2.74 (1.19)	2.02 (1.17)	2.927**	2.93 (1.39)	1.63 (1.07)	3.929***

Notes: Likert scale for responses: 5 = *strongly disagree.*
*$p < .05$. **$p < .01$. ***$p < .001$.

TABLE 7
Difference in Means *t* Tests for Total Sample for Online Course Experience by Sex

	Male			*Female*		
Item	*Not Taken Online Course*	*Taken Online Course*	*t Value*	*Not Taken Online Course*	*Taken Online Course*	*t Value*
Online courses easier than traditional courses	3.25 (0.95)	3.70 (1.09)	–2.581*	3.37 (1.02)	3.52 (1.35)	–.649
Traditional courses easier than online courses	2.75 (0.93)	2.92 (1.10)	–.946	2.61 (1.18)	3.16 (1.10)	–2.714**
Students learn more in traditional courses	2.40 (1.20)	3.14 (1.36)	–3.343**	1.61 (0.91)	2.99 (1.34)	–6.315***
Students learn more in online courses	3.47 (0.91)	3.03 (1.05)	2.574	3.70 (0.89)	3.40 (1.04)	1.658
Confident I can make good grade in traditional course	2.26 (1.26)	1.91 (1.39)	1.546	2.39 (1.15)	1.65 (1.12)	3.571***
Confident I can make good grade in online course	2.34 (1.24)	1.67 (1.14)	3.205**	2.38 (1.13)	1.77 (1.14)	2.966**
Confident I can complete traditional course	1.91 (1.18)	1.45 (1.15)	2.255*	1.46 (0.98)	1.62 (1.17)	–.805
Confident I can complete online course	2.33 (1.30)	1.62 (1.20)	3.271**	2.37 (1.22)	1.51 (1.10)	4.223***
More interaction between students in online courses	3.69 (1.06)	3.42 (1.21)	1.368	3.93 (1.02)	3.44 (1.33)	2.236*
More interaction with instructor online	3.58 (1.14)	3.41 (1.35)	.800	3.96 (1.11)	3.48 (1.33)	2.088*
Online courses are too time consuming	3.15 (0.87)	3.62 (1.11)	–2.716**	3.11 (0.90)	3.63 (1.19)	–2.628**
Quality of online courses is not as good as traditional courses	2.60 (1.02)	3.52 (1.50)	–4.101***	2.33 (1.06)	3.39 (1.42)	–4.512***
Inconvenient to attend traditional courses	3.12 (1.07)	2.79 (1.43)	1.476	3.51 (1.16)	2.80 (1.34)	3.061**
Takes more effort to complete online course	3.03 (0.98)	2.72 (1.16)	1.667	2.78 (1.09)	2.57 (1.36)	.926
Technology used in online courses is too advanced for me	3.78 (1.11)	4.51 (1.00)	–3.904***	3.72 (1.13)	4.60 (0.85)	–5.150***
Would like to see more instructors put materials online	2.66 (1.15)	2.02 (1.33)	2.980**	3.11 (1.25)	1.98 (1.14)	5.346***

Notes: Likert scale for responses: 5 = *strongly disagree.*
*$p < .05$. **$p < .01$. ***$p < .001$.

course, could complete an online course, could complete a traditional course, and that they would like to see more instructors online. This same group tended to disagree more strongly than those who had not taken online courses that online courses are easier, that students learn more in traditional courses, that online courses are too time consuming, that the quality of online courses is not as good, and that the technology used online is too advanced for them. *T* tests results for two additional items approached significance, with those who had not taken online courses more strongly disagreeing that students learn more in online courses and that it takes more effort to complete an online course. However, mean differences for these items were only significant at the $p < .10$ level.

Among females, there were significant differences for 12 of the 16 items. Those who had taken an online course were more likely to agree that they could make a good grade in both a traditional and an online course, that they could complete an online course, that there is more interaction between students and with an instructor online, that it was inconvenient to attend traditional courses, and that they would like to see more instructors put materials online. These same females more strongly disagreed than those who had not taken an online course that traditional courses were easier, that students learn more in traditional courses, that online courses are too time-consuming, that the quality of online courses is not as good, and that the technology used online is too advanced for them. While there are a few more statistically significant differences among females than males, all of the differences are in the same direction for those items that yielded significant results for both groups.

DISCUSSION AND CONCLUSIONS

Although there were significant differences between those who had taken online courses and those who had not in terms of their perceptions of online and traditional courses, these differences were generally in terms of strength of agreement/disagreement and not in terms of differences in the direction of their perception. For example, both those who had taken online courses and those who had not generally agreed that traditional courses are easier than online courses and disagreed that online courses are easier than traditional courses. While both groups tended to view traditional courses as easier, they also agreed that students learn more in traditional courses while disagreeing that students learn more online. While these perceptions seem a bit contradictory, as one might suppose that students might think that they would learn less in courses they identify to be easier, perhaps the difference is made more clear by examining the outlook regarding the effort online courses take. Students in both groups generally agreed that it takes more effort to complete an online course. This increased effort is possibly what students are equating with ease.

In terms of the direct assessment of quality, as noted above, those who had taken an online course disagreed that the quality of online courses was lower than traditional courses, while those who had not taken an online course agreed with this item. Further, those who had taken five or more online courses more strongly disagreed with this item than did those who had taken one or two to four online courses. Similarly, those who had taken five or more courses disagreed that students learn more in traditional courses, while those with one or two to four online courses agreed that this was the case. Although this cannot be directly tested with the available data, having the experience of taking online courses may increase one's opinion of the quality of such courses, with increased experience further increasing this opinion. Although it should be viewed guardedly, this is a potentially encouraging finding in regards to student perceptions.

Experience with online learning seemed to influence the perceptions of the older age groups more so than the younger age group examined. There were only two significant dif-

ferences for those aged 18–22, and both were in degree not direction of the perception. While there were more significant differences among the 23–29 and the 30–56 groups, all of these were in degree and not direction, with the exception of one. For both groups, those who had taken online courses disagreed that online courses were lower quality than traditional ones, while those who had not taken online courses agreed. Interestingly, there was no difference among the younger age group in regards to this item, with both groups slightly agreeing. While it was initially surprising that experience does not seem to matter for younger students, it might make more sense when taking learning style into consideration. Previous literature indicates that older students tend to be more self-directed than younger students. Along this vein, it could be that online course experience does not influence the perception of the youngest students in our sample because they might not be as self-directed in their learning style as the older students.

Lastly, online course experience seemed to matter slightly more for females than for males, with more significant results for the former group. However, once again, most of these differences were in terms of degree and not direction of the perception. Similar to most of the other subgroups in the sample, for both males and females, those with no online course experience agreed that the quality of online courses is not as good as traditional courses, while those with experience disagreed.

Overall, the data presented here seem to indicate that online course experience matters in terms of some of the perceptions of online courses, especially in relation to the seeming quality of such courses. Further, those students in the sample who had online experience tended to view that experience in a positive light and reported that they would take more online courses in the future. It is encouraging that those who are taking online courses are satisfied with that experience. Clearly, online learning has its place in higher education today and, for some, provides a viable choice and an enriching experience. Not only did experience tend to matter in relation to the perception of quality, but all groups with online experience examined reported that they would like to see more instructors put materials online. As noted previously, this may require additional resources for faculty support and training.

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