Faculty and Student Perceptions of Cheating in Online vs. Traditional Classes

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Abstract

We surveyed representative samples of 303 faculty and 656 students at a midsized public comprehensive university on their perceptions of cheating in online vs. traditional courses and examined whether these might differ based on gender, experience, major, or other factors. The majority of both faculty and students perceived cheating and plagiarism as greater problems in online classes vs. traditional, face-to-face classes. Students and faculty with experience with online classes, as well as education (vs. business) majors and faculty, perceived cheating as less of a relative problem in online classes. There was no evidence of generational differences in attitudes. These results suggest that perceptions of cheating in online classes have remained strong over time and may be an impediment to faculty teaching online.

Faculty and Student Perceptions of Cheating in Online vs. Traditional Classes

The number of students taking courses online continues to increase, with 6.4 million students taking at least one online course in the United States in fall 2016 (Seaman, Allen, & Seaman, 2018). A little over half of those students were also enrolled in one or more traditional, face-to-face classes, demonstrating that online education has gone beyond a tool for reaching students who otherwise could not attend classes to a mainstream option for many traditional, local students. The majority of U.S. institutions of higher learning indicate that online education is critical to their university's long term goals (Allen, Seaman, Poulin, & Straut, 2016). Despite this positivity from academic leaders, many faculty are hesitant to fully embrace online education. Only 29% of academic leaders reported that their faculty fully accept the validity of online courses, and about a third reported that negative faculty attitudes were an impediment to online education at their institution.

One reason why faculty may be loath to fully embrace online learning is the perception that these courses are rife with cheating compared to traditional, face-to-face courses (Bacow, Bowen, Guthrie, Lack, & Long, 2012; Wingo, Ivankova, & Moss, 2017). Both students (Dillé, 2011; Kennedy, Nowak, Raghuraman, Thomas, & Davis, 2000; King, Guyette, & Piotrowski, 2009; Miller & Young-Jones, 2012; Watson & Sottile, 2010) and faculty (Guyette, King, & Piotrowski, 2008; Kennedy et al., 2000; Patnaude, 2008) have reported that they believe it is easier to cheat in online classes. At least some of these anecdotal beliefs may be based on stereotypes and inexperience with the medium, however. Samples that include only online students have shown equal perceptions of cheating in online vs. traditional classes (Harmon, Lambrinos, & Buffolino, 2010). Similarly, faculty who are experienced with online courses are less likely to perceive greater cheating in these courses than faculty who are not (Kelley & Bonner, 2005; Kennedy et al., 2000).

The research on whether there actually is more cheating in online classes is less clear. Some studies have found similar self-reported levels of cheating in online and traditional courses (Watson & Sottile, 2010), others have found more cheating in online classes (Lanier, 2006), and still others, less (Peled, Eshet, Barczyk, & Grinautski, 2019; Stuber-McEwen, Wisely, & Hoggatt, 2009). Miller and Young-Jones (2012) found that students who only took online courses reported lower levels of cheating overall, but that those who took both types of courses reported more cheating in the online courses. This difference could be due to the fact that online only students tend to be older (Doyle, 2009), and several studies have found that older students are less likely to report that they have

cheated in the last year (Klein, Levenburg, McKendall, & Mothersell, 2007; Mustaine & Tweksbury, 2005).

One of the main concerns about cheating in online classes is cheating on multiple-choice exams. Several studies have attempted to assess levels of cheating in online vs. face-to-face tests, finding no differences in test scores for business graduate students (Ladyshewsky, 2015) and introductory students (Beck, 2014). Others have found results suggesting that there is more cheating in online courses (Fask, Englander, & Wang, 2014), at least for unproctored exams (Owens, 2015). Students tend to do better on unproctored online exams than on proctored ones, even within the same class, suggesting that unproctored online exams may be particularly tempting to cheat on (Daffin & Jones, 2018).

Few studies have compared individual differences variables in students or faculty that may help explain their views on online cheating. There is a large literature on gender differences in college student cheating, with meta-analyses and large scale studies generally showing no (Vandehey et al., 2007) or small (with men reporting more cheating; Whitley, Nelson, & Jones, 1999) effects. Less research has examined gender differences in cheating specifically in online classes, with at least one study finding that women are more likely to cheat online (Owens, 2015), and others finding no difference (Kennedy et al., 2000; Miller & Young-Jones, 2012). These gender differences may be affected by differences in the majors that men and women tend to choose, with business majors of both genders more likely to cheat (McCabe, Butterfield, & Trevino, 2012). It is difficult to compare differences in actual or perceived cheating in online classes by major, since most studies have either looked at cheating overall (e.g., McCabe et al., 2012), only assessed faculty or students in one academic area (e.g., Dillé, 2011; King et al., 2009), or failed to report levels of online cheating by major (Stuber-McEwen et al., 2009; Watson & Sottile, 2010).

In this study, we directly compared perceptions of a representative sample of faculty and students at one midsized public comprehensive university on cheating in online vs. traditional courses. Many of the studies examining perceptions are up to a decade and a half old, and perceptions may change over time (Allen et al., 2014) based on experience, improvements in online class delivery programs, or other factors. We also compared whether these perceptions differed by several individual factors: whether they had taken or taught an online course, gender, seniority, and major area. Knowing the correlates to these perceptions may help administrators target interventions more effectively. Finally, we examined whether these perceptions differed based on how common and how serious students and faculty perceived academic misconduct to be and their own experiences with academic misconduct and as well as knowledge of the university's academic ethics policy (AEP) to help ascertain to what extent perceptions may be related to personal or general knowledge about cheating.

Method

This analysis was part of a larger study on academic misconduct of faculty and students. See https://osf.io/zbmq7/ for comparisons of survey respondents to the university community, further information on methods, and a copy of the two surveys.

Participants

We sent a link to an online survey to 3000 undergraduates from a mid-sized Midwestern public comprehensive university in a stratified (by classification) random sample, followed by two reminder emails. Of those, 659 students (373 women, 214 men, 16 other or prefer not to answer, and 56 missing) responded to at least part of the survey (22% response rate), and one of those students' data was deleted because he/she was under age 18. The sample provided a good approximation of the gender, age, and college (area of study) of the university as a whole, although the sample tended to be slightly skewed toward higher levels of first year students, sophomores, and juniors.

We used listservs to send a similar survey with two reminders to all faculty at the university. We received 303 usable responses, for an approximate response rate of 35%. The sample closely represented university statistics on gender, college, and time at the university, but more senior faculty tended to be overrepresented.

Procedure

After providing informed consent, participants rated the extent to which 17 specific behaviors from the university academic ethics policy constituted cheating, were common at the university, and were morally wrong on separate 4-point scales. They also indicated whether they had engaged in (students) or observed (faculty) each behavior in their courses at the university (*yes/no*). The order of the behaviors and the questions about the behaviors were randomized. We calculated a "common" scale by averaging how common participants rated each behavior as ($a = .94$ for students and .92 for faculty) and a "seriousness" scale by averaging how morally wrong participants perceived each behavior to be ($a = .88$ for students, .79 for faculty). An "experience with cheating" score totaled

how many behaviors students had engaged in (a = .71) or faculty had observed (a = .80) in their time at the university. Because all of the behaviors were technically violations of the university AEP, the average extent to which participants rated the behaviors as a violation of the AEP was considered a measure of "knowledge" of the policy (a= .90 for students and .78 for faculty).

Participants also provided their perceptions of the extent to which cheating occurs in online vs. face-to-face courses from 1 = *much more cheating and plagiarism in online classes* to 5 = *much more cheating and plagiarism in traditional classes* and indicated whether they had ever taken (students) or taught (faculty) an online class at this university.

Other items on the survey asked about perceptions and experiences with the university academic policy and demographics such as gender, major college, academic classification, age (students), levels of classes taught (faculty), and years spent teaching at this university (faculty).

Results

Faculty and students had similar perception of cheating/plagiarism in online vs. traditional classes, with the majority in each case perceiving cheating and plagiarism as a bigger issue in online classes (63% students, 56% faculty) than in traditional courses (5% students, 7% faculty). Overall, 46% of student respondents had taken at least one online class at the university, and 42% of faculty respondents had taught one.

A second question was the extent to which these perceptions differed by several individual factors. In order to conserve power and avoid uninterpretable interactions, we conducted separate ANOVAs on the continuous rating of cheating perceptions (5 point scale from much more in online courses to much more in traditional courses) by most of our individual difference variables (i.e., experience with online courses, gender, major category), including student vs. faculty status as an additional factor. We also conducted ANOVAs to examine perceptions separately by position for faculty (e.g., assistant professor, associate professor) and year in school for students.

In the first analysis, we assessed the effects of experience and status (student vs. faculty). Both students and faculty who had taken or taught online courses perceived less cheating in online ($M = 2.44$, $SD = .98$) relative to traditional ($M = 2.05$, $SD = .85$) courses, $F(1, 827) = 32.94$, $p < .001$, h2 =.032, although the means in each case were still on the "more cheating in online classes" side (i.e., less than the midpoint of three). There were no effects of status or interactions with status.

For gender, we compared only those who marked "female" or "male" (along with assessing differences between students and faculty) because there were not sufficient numbers in the other categories to compare. There were no differences by gender (h2 =.004, $p = .07$) nor status nor interactions of gender and status.

The university has four academic colleges—business; education; social and behavioral sciences; and humanities, arts, and sciences. For students and faculty in the last college, we also asked whether their major/department was in the arts, humanities, or natural sciences. This breakdown resulted in six major categories which we analyzed along with status. There was a significant effect of major, $F(5, 781) = 2.57$, $p = .026$, h2=.016, but no interaction with status or main effect of status. Education majors and faculty perceived more equal amounts of cheating across the two modes, whereas Business majors and faculty tended to believe there was more online cheating (using Tukey-b post hoc test; Table 1).

There were no differences by academic title for faculty (adjunct, instructor, assistant professor, associate professor, professor; 2 faculty who marked "other" were removed for this analysis), $F(4,230) = .65$, $p = .63$, h2 = .011. Consistent with this finding, there were no differences in attitudes by how long faculty had taught, r (234) = -.004 or how many years they had taught at this university, $r(230) = -.042$. For students, however, class did affect perceptions (10 students whose class standing was "other" are not included in this analysis), $F(4, 576) = 5.183$, $p < .001$, h2 = .035, with graduate students perceiving less relative cheating in online courses ($M = 2.54$, $SD = 1.00$) than first year students ($M = 1.98$, $SD = .85$), sophomores ($M = 2.13$, $SD = .81$), juniors (M=2.20, $SD = .98$) and seniors ($M = 2.12$, $SD = .88$). Sixty-six percent of graduate students had taken an online course at the university, compared to 69% of seniors, 50% of juniors, 36% of sophomores, and 20% of first year students.

Finally, to examine whether perceptions of cheating more generally (how common and serious/wrong it is), cheating experience, and knowledge about what constitutes cheating at this university affected perceptions of the level of cheating in online vs. face-to-face classes, we correlated each of these variables with cheating perceptions for students and faculty separately. Students and faculty who perceived cheating as more common perceived online cheating to be a bigger problem relative to traditional cheating. In addition, students who reported doing more types

of cheating had greater relative perceptions of online cheating as a problem. (Table 2).

Discussion

These results suggest that perceptions of greater amounts of cheating in online classes remain strong among faculty and students. Both groups perceived more cheating in online relative to traditional classes, and the means of every subgroup tested remained on the "online greater" side. This result is consistent with older research (e.g., Guyette et al., 2008; Kennedy et al., 2000: King et al., 2009) and suggests that, despite improvements to course delivery programs to make cheating more difficult or easier to detect, both students and faculty still perceive online courses as being more amenable to cheating.

There was some evidence that experience may temper those attitudes somewhat, again consistent with previous research (Harmon et al., 2010; Kelley & Bonner, 2005; Kennedy et al., 2000). Faculty who had taught online and students who had taken online classes perceived less difference in cheating in online vs. traditional formats. Education majors and faculty also perceived less difference. Education majors were the most likely (61%) to have taken online courses, and education faculty (72%), to teach them. Graduate students, who had more experience with online courses than most other students, also perceived less difference in cheating in the two formats.

Students and faculty who perceived online cheating as a greater problem than cheating in traditional courses also tended to perceive cheating on campus in general as more common. It may be that these students and faculty are sensitive to cheating and perceive it as a bigger problem in general. Students perceived online cheating as a greater problem when they admitted to doing more types of cheating themselves. Students who admit to cheating in various ways may also be more likely to be creative and view ways to cheat in online classes.

One limitation of this study is that it did not assess perceived levels of cheating in online and traditional classes separately. Two people with the same ratings of relative amounts of cheating could have differing opinions on whether the amount of cheating in either type of class is high or low. Because our main goal was to compare perceptions of cheating in the two types of courses and because of time constraints, we did not ask further questions about levels or types of cheating in the two class modes, but future research could investigate these issues more fully.

Conclusions and Suggestions for Practice

Our study suggests that perceptions of more cheating in online vs. face-to-face classes remain strong among both faculty and students, despite some recent research showing that cheating levels may not be higher in online courses (Beck, 2014; Ladyshewsky, 2015). These perceptions may be an impediment to colleges and universities reaching their goals in distance education, as they may lead faculty to be less likely to want to teach online and lead students to believe that online courses are less rigorous. Somewhat surprisingly, faculty perceptions did not differ by position (e.g., instructor vs. full professor) or time spent teaching. At least at this university, it was not the case that newer or younger faculty seemed to have less negative impressions of the level of cheating in online courses.

The largest impediment to perceptions may be overcoming the initial reluctance to teach or take a class online. Once students and faculty have taken or taught an online course, their perceptions of the relative amount of cheating in online vs. face-to-face classes became closer to equal, although the majority still rated cheating as greater in online courses. Faculty and students who perceived cheating as more common in general also perceived more relative cheating in online classes, which also suggests that stereotypes about cheating may be partially driving these perceptions. Targeted interventions illustrating the benefits of online classes may be especially needed in business-related departments, where perceptions were more negative.

In addition to working to combat methods of cheating in both online and traditional classes, administrators who want to promote online courses may need to actively work to convince both faculty and students that online courses can be just as rigorous and academically honest as traditional courses. Despite online courses becoming more popular and at least some research showing that in fact there is less or equal levels of cheating in online courses, negative impressions, by both newer (and presumably more technologically savvy) and more experienced faculty, remain.

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Table 1

Means of perceived levels of cheating in online vs. traditional classes by major

Major	Students	Faculty	Overall
Business	2.08 (.80)$_{ab}$	1.89 (.89)$_{a}$	2.04 (.82)$_{a}$
Arts	2.04 (.80) $_{ab}$	2.38 (1.19)$_{a}$	2.09 (.87)$_{ab}$
Humanities	1.88 (.96)$_{a}$	2.44 (.94)$_{a}$	2.18 (.98)$_{ab}$
Natural Sciences	2.17 (.98)$_{ab}$	2.21 (.84)$_{a}$	2.19 (.94)$_{ab}$
Social/Behav Sci	2.26 (.93 $_{ab}$	2.15 (.98)$_{a}$	2.23 (.94)$_{ab}$
Education	2.36 (.97)$_{b}$	2.45 (.87)$_{a}$	2.39 (.94)$_{b}$

Note: Scale ranges from 1 = *much more cheating and plagiarism online* to 5 = *much more cheating and plagiarism in traditional classes.* Numbers in parentheses are standard deviations. Means with different subscripts within a column differ at $p < .05$

Table 2

Correlations between perceptions of cheating in online vs traditional classes and perceptions and experiences with cheating

	Online/ftf	Experience	Common	Seriousness	Knowledge
Online/ftf	--	-.16*	-.17*	.04	-.01
Experience	-.09	--	.31*	-.33*	-.29*
Common	-.19*	.51*	--	-.12*	-.04
Seriousness	-.16	<.-01	-.07	--	.55*
Knowledge	-.01	.01	-.05	.68*	--

Note: * $p < .01$; Student correlations are above the diagonal. *n*'s = 541-563; Faculty correlations are below the diagonal. *n*'s = 221-251. Online/ftf = higher numbers represent greater perceptions of cheating in traditional vs. online classes; Experience = how many types of cheating/plagiarism a student had engaged in or faculty member observed; Common = How common students/faculty perceive cheating/plagiarism to be; Seriousness = How morally wrong students/faculty perceive cheating/plagiarism to be; Knowledge = How many items students/faculty correctly indicated were considered cheating/plagiarism according to the university policy.