Point, Click, and Cheat: Frequency and Type of Academic Dishonesty in the Virtual Classroom

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Abstract

Students who feel disconnected from others may be prone to engage in deceptive behaviors such as academic dishonesty. George and Carlson (1999) contend that as the distance between a student and a physical classroom setting increases, so too would the frequency of online cheating. The distance that exists between faculty and students through the virtual classroom may contribute to the belief that students enrolled in online classes are more likely to cheat than students enrolled in traditional classroom settings. The prevalence of academic misconduct among students enrolled in online classes was explored. Students (N = 225) were given the Student Academic Dishonesty Survey to determine the frequency and type of academic dishonest behaviors. Results indicated that students enrolled in online classes were less likely to cheat than those enrolled in traditional, on ground courses. Aiding and abetting was self-reported as the most frequently used method among students in both online and traditional classroom settings. Results suggest that the amount of academic misconduct among online students may not be as prevalent as believed.

Introduction

Research has shown that academic dishonesty is pervasive on college campuses, with the majority of students having engaged in it at some point during their college career. Depending on the type of survey used, reported percentages of undergraduate and graduate students who admit to having cheated has ranged from 9% to as high as 90% (Davis, Grover, Becker, & McGregor, 1992; Genereux & McLeod, 1995; Maramark & Maline, 1993; Mecum, 2006; McCabe & Treviño, 1996; Smith, 2005; Stuber-McEwen, 2005; Stuber-McEwen, Wiseley, Masters, Smith, & Mecum, 2005). In some environments, cheating has become so common that students may not even view their behavior as dishonest (Cizek, 1999, 2003).

In his review of the research literature, Gerdeman (2000) categorized the individual and social factors associated with academic misconduct into four main areas: individual characteristics, peer influences, instructor influences, and institutional policy. Individual characteristics include such corollaries as academic achievement, age, gender, and major. Students with lower grade point averages or students who feel the pressure of maintaining high dollar scholarships are more likely to engage in academic dishonesty. Non-traditional students are less likely to cheat than their younger counterparts (Smith, 2005). Men have traditionally engaged in more academic misconduct than women; however, in recent years the gap between men and women appears to have decreased (*Cheating is a Personal*….n.d.; Smith, 2005). In terms of peer influence, students whose peers regularly cheat, or are perceived to cheat, or whose peers consider cheating to be an acceptable practice are also more likely to engage in academic misconduct. Not to be underestimated, the influence of instructor attitude and efficacy are also factors in determining cheating behaviors. Students who perceive their instructors as less concerned or indifferent about them and whether or not they learn the course material are more likely to cheat. Additionally, instructors who are permissive, unduly difficult, or unfair are also likely to increase the incidence of cheating in their classes. Finally, institutions that rely solely on student handbooks and orientations may not be communicating integrity policies sufficiently. Rather, institutional environments with clearly defined and articulated policies on academic dishonesty and its consequences can substantially reduce the amount of cheating on campus (Gerdeman, 2001).

Kelley and Bonner (2005) suggested that students who feel close to their professors tend to be more honest. However, the ability for faculty to develop a strong rapport with students becomes more difficult with online learning environments. Students who feel "distant" from others are more likely to engage in deceptive behaviors, such as cheating (Burgoon, Stoner, Bonito, & Dunbar, 2003; George & Carlson, 1999; Rowe, 2004). Online classes may serve only to exacerbate these feelings of distance and, thus, may contribute to academic misconduct when compared to traditional classroom settings (Heberling, 2002; Kennedy, Nowak, Raghuraman, Thomas, & Davis, 2000; Stuber-McEwen et al., 2005). Both students and faculty perceive that cheating occurs more frequently in virtual classrooms because online students are often believed to be more savvy at utilizing online resources than their on ground counterparts, or are less likely to be caught by faculty who are unfamiliar with online detection techniques (Grijalva, Kerkvliet, & Nowell, 2003; Stuber-McEwen et al., 2005).

George and Carlson (1999) contend that as the distance between a student and a physical classroom setting increases, so too would the frequency of online cheating. Their assumption, coupled with the belief that academic misconduct is more pervasive in the virtual classroom (McEwen et al., 2005) led us to question whether cheating actually occurred more frequently in online classes than those taught in traditional classroom settings. In essence, does academic dishonesty occur more often in online classes where there may be little to no direct (i.e., face-to-face) contact with the online instructor? The purpose of this investigation was to explore the self-reported frequency of academic dishonesty in the virtual classroom. We hypothesized that there would be a significant difference between the percentage of students in online courses who engage in academic dishonesty and those in a traditional classroom setting. This study also investigated the types of cheating in online and traditional classes to see if cheating took on different forms in these two settings.

Method

Participants

Students (N = 225) enrolled in on ground (n = 87) and online (n = 138) courses volunteered to participate. The investigation took place at a private, mid-size Christian based university located in a midwestern metropolitan city. The university offers associate, baccalaureate, and masters degrees taught in traditional and cohort models. The sample in this investigation consisted of upper and lower division undergraduates enrolled in both day and evening semester-length courses. Nearly all evening students were simultaneously enrolled in both on ground and online courses at the time they were surveyed.

Instrument

The survey, modified and expanded from Davis' et al (1992) academic dishonesty scale, is a 43-item self-report questionnaire designed to measure the following seven types of academic misconduct: cheating (on tests), plagiarism, fabrication, obtaining an unfair advantage, aiding and abetting, falsification of records and official documents, and unauthorized access to computerized records (*Definitions of Academic Violations*, 2006). The instrument also measured students' past cheating behaviors and attitudes toward academic misconduct. Two versions of the survey were created: a hard copy distributed to students in traditional on ground classes and an online version posted on SurveyMonkey.com. A letter outlining the purpose of the study was forwarded to the instructors and emailed to online students through their respective online courses. Students volunteering to participate were invited to click a link in the email message that directed them to the survey. Because online faculty emailed their students directly, it is unknown how many students received the email or what percentage participated. On ground students were administered an informed consent form, demographic questionnaire, and survey during class. All on ground students who were asked completed the survey.

Preceding each section of the survey and to ensure participants clearly understood how each type of dishonesty was defined, a short description was provided. For example, *Aiding and Abetting includes providing assistance to others, such as allowing a fellow-student to copy a paper or test answers*. Students were then asked to respond: *Have you ever been involved in aiding or abetting in college? (yes or no)*.

Results

A 2 x 2 Chi Square test revealed a significant difference in overall cheating between online and on ground students, $X^2 = 33.75$, $p < .0001$, thus, the hypothesis was supported. Table 1 clearly shows that students in this sample were more likely to cheat in traditional classroom settings and less likely to cheat in online courses.

Table 1

Chi Square Test Comparing Online and On Ground Student Academic Dishonesty

Learning Environment	Any Form of Academic Dishonesty		
	Yes	No	Total
Online	14 (31.5)*	124 (10.5)	138
On Ground	39 (20.5)	48 (33.5)	47
Total	53	172	225

* Expected Values

Although percentages by types of cheating were varied (Figure 1), analyses showed significant differences in all but one type of cheating with *aiding and abetting* as the preferred method of cheating among both on ground and online students (Table 2).
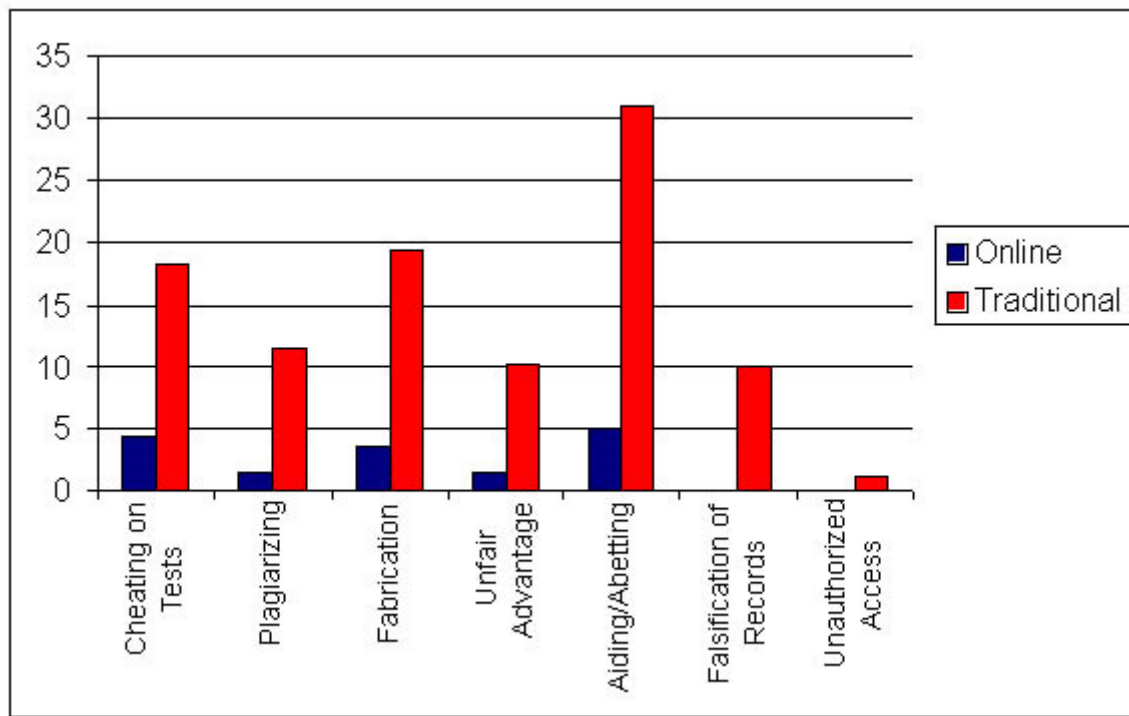

Figure 1. Learning Environments by Types of Cheating

Further analyses revealed a significant difference in the *types* of cheating between online and on ground classes. Also interesting was that aiding and abetting was found to be the most frequently reported type of dishonesty among graduate students at this institution, as well (Mecum, 2006).

Table 2

Chi Square Test Comparing Online and On Ground Students by Form of Academic Dishonesty

Type of Dishonesty	Online	On Ground	p
Cheating on Tests	6 (13.5)*	16 (8.5)	.0013
Plagiarism	2 (7.4)	10 (4.6)	.0031
Fabrication	5 (13.5)	17 (8.5)	.002
Unfair Advantage	2 (6.8)	9 (4.2)	.0065
Aiding and Abetting	7 (20.9)	27 (13.1)	.0001
Falsification of Records	0 (5.6)	9 (3.4)	.0004
Unauthorized Access	0 (.6)	1 (.4)	.8

* Expected Value

Other patterns in the data also emerged. No differences in the amount of cheating by enrollment status (day versus evening programs), or by sex of participants were found. If students in both samples admitted to cheating in high school, they were also more likely to cheat in college. The data suggest that students caught cheating in high school are not deterred from cheating in college and only a small percentage students in both samples reported getting caught. This pattern was also seen in our graduate student sample: students who admitted to cheating in college were also more likely to continue this behavior in graduate school (Mecum, 2006).

Discussion

Contrary to what is generally believed (Burgoon et al., 2003, George & Carlson, 1999; Heberling, 2002; Kennedy et al., 2000; Rowe, 2004; Stuber-McEwen et al., 2005), the online students in this sample reported engaging in academic misconduct less often than their on ground counterparts. This corroborates Grijalva et al. (2003) and Kaczmarczyk (2001) who also contend that less cheating occurs online than in traditional classrooms. Although the reasons why students engage in academic dishonesty is beyond the scope of this research, there are several differences between these two groups that may provide some explanations; for example, on ground students may engage in more "panic cheating" than their online counterparts. Although planned cheating involves more substantial preparation (Bunn, Caudil, & Gropper, 1992; Grijalva et al., 2003), it is likely that online students usually have the opportunity to do their coursework off campus and at their own pace, and thus, are less apt to engage in panic cheating. Additionally, online students who are proctored during exams expect to be watched and may come to the exam more prepared. However, even in on ground classrooms where students expect to be monitored, cheating still occurs (Grijalva et al., 2003).

Non-traditional students reported less cheating. Most online classes at our institution are offered through the adult (evening) program, which means the average age of our online sample was older. Although arguably the online and on ground samples were not equivalent, non-traditional students in the on ground sample also reported significantly less cheating than their younger peers. These findings support previous studies that show non-traditional students are less likely to engage in academic misconduct (Gerdeman, 2000; Smith, 2005).

Because faculty anticipate online cheating, they may develop assignments and exams to reduce the likelihood of such misconduct. For example, instructors may give challenging or timed tests, personalize written assignments, allow students to use outside materials, or work in groups (Grijalva et al., 2003), thus reducing the incidence of cheating.

Finally, online students may be more motivated or able to learn independent of traditional classroom settings, which could substantially reduce their desire to cheat. Non-traditional students, which made up the majority of the online sample, are more likely to be actively engaged in the learning process. These students are also more self-directed and motivated to learn, are better equipped to make connections between book learning and real life experiences, and enjoy the course content when they perceive that what they are learning will help them cope with real life tasks or problems ("Tips for Teaching" …, n.d.).

Limitations and Suggestions for Further Study

Clearly, this study was limited by sample size, type of institution, and geographic region. Although our findings corroborate Grijalva et al. (2003) and Kaczmarczyk (2001) who reported less cheating in online classes, we are not able to generalize our findings beyond this institution. A large-scale investigation among a variety of institutions that offer online classes and programs would provide a broader view of the frequency and type of cheating in online classrooms.

In this investigation, the majority of on ground students were traditional undergraduates whereas the majority of online students were enrolled in the adult, evening program. Although these two samples were not equivalent, the patterns of self-reported academic dishonesty were similar across all types of cheating, except in the case of *Unauthorized Access to Computer Records* to which only one on ground student admitted. It is possible that this student also worked on campus and had access and the ability to change student records. Future investigators may want to select and match traditional on ground and online students based on variables such as age, and experience with technology.

This study did not take into account the number of online classes students in either group had previously taken, nor did it determine which participants were enrolled only in online or on ground courses. We can say that the majority of participants in the online sample were nontraditional students who were simultaneously enrolled in on ground classes. Typically, students at this institution take both types of courses in a given semester and we tried to ensure students answered the questions only from an online or on ground perspective. Additional study into the relationship between online course experience and other factors such as course load and age is warranted.

Data were collected prior to the university's adoption of a campus-wide academic integrity policy, which is now required to be included in all syllabi. These policies and procedures are also posted online, and instructors are expected to provide a link to these policies from the home page in their courses. Because of their inability to physically monitor online students, instructors may assess students more stringently than they assess students in on ground classes (e.g., give timed tests, personalize assignments). We neither reviewed academic dishonesty statements in instructors' syllabi nor determined the degree to which faculty monitor students among the classes surveyed. Further exploration into the relationship between amount or type of cheating in online classes and the instructors' emphases on the importance of academic integrity, the degree of monitoring, and types of assessments is also warranted.

In this investigation, students in the online sample were also most likely taking on ground courses simultaneously, and therefore these results cannot be generalized to students enrolled only in online courses. Further research that compares students from traditional programs who take online courses with those enrolled in distance learning education would provide greater insight into cheating in the virtual classroom.

Participants from both online and on ground courses believed more cheating occurs in online courses. This may be due to the assumption that online students are more savvy in the use of technology and would adopt more "high tech" ways to cheat than those who are less technically inclined. However, we cannot ignore the fact that on ground students can easily use the same techniques as those who take online classes. Could the differences between online and on ground students be influenced by their characteristics and traits, such as age, motivation, more so than the type of learning environment? Further comparison into the cheating techniques employed, as well as other characteristics that influence cheating by on ground and online students is also warranted.

Conclusions

Even though our results suggest there is less overall cheating in the virtual classroom than in traditional classroom settings, the concern about online students' feeling of distance and disengagement in an asynchronous learning environment cannot be overstated. In one of our pilot studies, we found that the faculty at this institution perceived online cheating to be significantly higher than in on ground classes (Stuber-McEwen et al., 2005). This assumption may suggest that students and faculty have little to no direct and immediate interaction as they do in traditional classroom settings (Grijalva et al., 2003). Additionally, although faculty are concerned about cheating in online classes, they are not typically proactive in deterring this type of behavior (Rogers, 2006). Contrary to students' perceptions that cheating occurs more frequently online than in traditional classroom settings, our findings suggest that online students are less inclined to cheat, possibly because new technologies typically "attract smarter and more motivated users with less reason to cheat" (Rowe, 2004, ¶ 8). Therefore, at present, we could expect less reported cheating in online courses than in traditional learning environments.

What surprised us most in our series of investigations is that aiding and abetting was the most pervasive form of self-reported cheating among all participants. The McCabe, Treviño, and Butterfield (2001) comprehensive investigation into academic misconduct provides substantial insights into why students engage in this type of behavior. They identified contextual factors, such as perception of peers to be the most powerful influence on academic dishonesty. Classmates who view cheating as acceptable, or who are perceived by peers as being acceptable, may evoke cheating in others.

Why students specifically aid and abet may also be directly related to how they relate, or choose to relate to their peers; specifically, cognitive dissonance theory may be at work. Cognitive dissonance (Festinger, 1957) exists whenever a person has two contradictory cognitions or beliefs at the same time. Cognitive dissonance creates an unpleasant psychological tension that subsequently motivates an individual to try to resolve this dissonance. One way to reduce the discomfort or guilt (i.e., cognitive dissonance) associated with cheating in school is to show approval of, or support for, other students who engage in academic dishonesty (Storch & Storch, 2003). Aiding and abetting is more than just helping out a friend or classmate. If a student already engages in cheating behavior, he is she is probably more likely to aid and abet others as a way to resolve the dissonance, to justify his or her actions, or to view their transgressions in a less negative way. *If I give my paper to someone, or allow someone to look off of my test, it is not me who is cheating. It is the other person.* Aiding and abetting easily reduces their cognitive dissonance. It suggests friendship and a willingness to help.

Students often have differing views on what constitutes cheating (Baker, Berry, & Thornton, 2008), and possess varying degrees of tolerance toward it (Baker et al., 2008; Roag & Ballew, 1992). It is a persistent and pervasive problem that remains a source of concern, not only in education but also in other aspects of society. Students who cheat in high school are more likely to cheat in college and those who cheat as undergraduate are also more likely to cheat in graduate school (Mecum, 2006; Stuber-McEwen, et al., 2005). Can we expect anything less of students once they finish their education and move into their careers?

Institutions that adopt and effectively communicate policies and increase student awareness of the penalties associated with academic misconduct and its enforcement tend to reduce cheating (Aaron, 1992; Crown & Spiller, 1998, Gerdeman, 2001; McCabe, & Bowers, 1994; McCabe & Treviño, 1997; McCabe et al., 2001). In addition to well-defined policies and procedures for students, institutions may also need to educate their faculty on how academic dishonesty is defined and the institution's procedures for handling violations. For example, at our institutions, faculty are given the freedom to handle cases of cheating as they see fit; however, they are expected to submit a report to the dean's office in order to track repeat offenders. Some institutions are also requiring students to sign an integrity contract at the start of each academic term. Other institutions require students who repeat this behavior, or engage in what is considered to be an egregious violation to attend an integrity course. This course may or may not appear on the student's transcript. In essence, a proactive approach to reducing academic misconduct should be a campus-wide effort that involves everyone: administrators, faculty, and others deemed by the institution as important to the integrity process.

Because there is no single reason why students engage in academic dishonesty, deciding where to pool institutional time and resources to combat the problem is a challenge. The college may want to contract with Turnitin, an online plagiarism detection service, provide in-house workshops to educate faculty on identifying academic misconduct and confronting students suspected or caught cheating, or impose sanctions on repeat offenders.

The administrators and faculty together should openly discuss the issues and collectively decide what is best for their institution. As a result of our first on ground survey, the Academic Vice President appointed an Academic Integrity Task force. This group researched the policies and procedures of a variety of institutions and drafted a protocol for responding to academic violations that was eventually voted on by the faculty and sanctioned by Board of Directors. Each institution must find its own direction and develop standards that best fit its own mission statement and goals.

Although the results of this study suggest that cheating in online courses is not as pervasive as some believe, "when there is relative anonymity and a separation between instructor and student, these concerns seem to increase" (Varvel, 2005, ¶ 1). Thus, the need for colleges and universities to search for ways to increase online students' connectedness to the online community cannot be over stated. As online learning becomes more accepted as a means to an educational end and available to more people, it is likely that the prevalence of academic dishonesty will increase.

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