An Analysis of Academic Dishonesty in Online Classes

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Currently, online formal education is growing at a phenomenal rate; however, many fear that online courses do not provide the same rigor as on-campus courses. This is due in large part to the perception that students are more likely to cheat in online courses. A number of studies have been completed in this area and, in fact, many have shown that students are more likely to cheat in on-campus courses than in online courses; however, the perception remains. This perception affects opinions about online classes and even the reputation of the institutions offering the classes. The question then arises as to what role educators should play in academic integrity in online classes. This article provides an analysis of the existing literature on why students cheat, online versus on-campus cheating, the implications of online course academic dishonesty, and methods of lessening academic dishonesty in online classes. This article closes with suggestions for future research to aid in the assurance of academic integrity in online classes.

Introduction

At this current point in time it is clear that online formal education offerings are continuing to increase and are an integral part of our higher education system. In fall 2016, according to Seaman, Allen, and Seaman (2018), 31.6% of all students were enrolled in at least one online course and "total distance enrollments [were] composed of 14.9% of students (3,003,080) taking exclusively distance courses, and 16.7% (3,356,041) who [were] taking a combination of distance and non-distance courses" (p. 3). In spite of the popularity of online courses, there is concern about the level of academic integrity in online courses, or "how easily they could be exploited" (Wolverton, 2016, p. 15). It is commonly assumed that there is a higher level of cheating in online courses (Heberling, 2002. Concern regarding academic dishonesty in online courses has grown to the point that the U. S. passed legislation to help ensure academic integrity. "Public Law 110-315 directs accreditation agencies to require an institution to have processes to establish that the student who registers in a distance education course or program is the same student who participates in and completes the program" (Bailie & Jortberg, 2009, p. 197). Based on this, one might think that a higher incidence of cheating in online courses is a known fact. However, multiple studies and reviews have yet to confirm this as fact. While the perception is that students cheat more in online courses, what is the truth? Perhaps more importantly, what should educators be doing about the amount of cheating occurring in online courses? How can educators ensure that future professionals do not cheat their way to a degree or professional certification? A clear understanding of academic dishonesty on college campuses and, specifically, in online classes, can lead educators to the best methods to be used to discourage cheating in online classes and insure academic integrity.

Academic Dishonesty

Academic dishonesty is always of concern in any educational setting. Academic dishonesty is defined as "any type of cheating that occurs in relation to formal academic exercises. It can include plagiarism, . . . fabrication, . . . deception, . . . cheating, . . . [or] sabotage" (Berkeley City College, 2018, para. 1). "Cheating is defined as any attempt to give or obtain assistance in a formal academic exercise (like an examination) without due acknowledgment" (Berkeley City College, 2018, para. 1). Conversely, "academic integrity is the commitment to and demonstration of honest and moral behavior in an academic setting" (University of North Carolina at Chapel Hill, 2018, para. 1).

A decade ago, Stuber-McEwin, Wisely, and Hoggatt (2009) reviewed a number of studies regarding cheating among undergraduate and graduate students and found that the number "who admit to having cheated has ranged from 9% to as high as 90%" (para. 1). More recently, Wolverton (2016) stated that "cheating has become second nature to many students. In studies, more than two-thirds of college students say they've cheated on an assignment" (para. 32). Dante (2016) pointed to the fact that "*The New York Times* reported that 61% of undergraduates have admitted to some form of cheating on assignments and exams" (p. 33).

Whether a course is online or on campus, students have a variety of ways to cheat at their fingertips. With advances in technology, faculty can be hard pressed to keep up with the myriad of academically dishonest methodologies students can use. Cheating has gone beyond just copying papers or answers. Students can now purchase entire term papers online, cut and paste from other articles or websites, or send each other answers through phones and other devices – one student can share answers with another via digital media and suddenly half the class has the same answers. Sites such as "Yik Yak" are known to include exam information and questions which can be broadcast widely. Students can easily find YouTube and other online videos with instructions of how to cheat. The current pinnacle of cheating methods was recently covered in an article in *The Chronicle of Higher Education,* "The New Cheating Economy"; there are now companies that students can hire to take their entire online class for them (2016).

To compound this issue even further is the fact that many faculty greatly underestimate the amount of cheating that is occurring. Volpe, Davidson, and Bell (2008), found that "faculty reported that they believed 30%-40% of students cheated once in their academic careers" (para. 12). Wolverton (2016) stated that many professors "may be ignorant" to the newer methods of student cheating such as students paying "for an entire course to be completed covertly by a paid imposter" (p. 16). A professor interviewed by Wolverton further stated that "he was surprised at how prevalent they (his students) said cheating was, and how quickly the on-line-cheating market had grown" (2016, p. 15). Still other faculty "are in denial that it could happen in their classes" (Wolverton, 2016, para. 62).

This demonstrates a potentially significant disconnect between actual student behavior and faculty beliefs about cheating. This may very well be reflected in faculty attitudes and actions surrounding academic integrity, which may, in turn, be affecting the volume of cheating. While many faculty do not want to pre-judge, this underestimation of cheating may be leading more

students to cheat and "get by with it," leading to ongoing dishonesty throughout their academic careers.

Why Students Cheat

Obviously, students cheat in an attempt to obtain a higher grade. The rationale behind this can be based on a number of issues. One theory behind cheating involves the fraud triangle, which is based on three elements that, if present, can result in cheating (Bailie & Jortberg, 2009). These elements are: "incentive/pressure, opportunity, and rationalization/attitude" (King, Guyette, & Piotrowski, 2009, p. 3). Students are obviously under pressure to earn good grades. If the opportunity presents itself to dishonestly improve a grade in some way, many students will take advantage of that opportunity because they have the ability to rationalize it. Thoughts such as "everyone is doing it" or "it isn't hurting anyone" are ways in which students rationalize their behavior. Some may have the perception that everyone else is cheating so they are at a disadvantage if they do not. Many students focus solely on the grade earned in a class, not what they actually learn. As a participant in Cole and Swartz's (2013) study stated, "I think that's what we students truly care about anymore…getting a good grade is more important than learning anything anymore…because when you get to the work part, they teach you what you want to know, your diploma is just your foot in the door for the most part" (p. 738). The reliance on technology can also lead to the fact that many students do not see the need to learn and memorize basic information. "Why, from a student's perspective, should they have to memorize basic stratigraphic principles when their phone can produce a list of them in a matter of seconds?" (Hippensteel, 2016, p. 22).

Many current college-age students have a viewpoint on what constitutes cheating that differs significantly from the generation of their instructors. The internet is often perceived by younger generations as public information, regardless of the source, thus seeing no reason not to use that information without citation of sources. They do not view this dishonest behavior as wrong. Kitahara and Westfall (2007), cite a case that occurred at Troy University in which students had obtained copies of the textbook test bank. When the students were failed due to their use of the test bank, they appealed and "were brazenly defiant about their actions and use of materials available on the public internet" (p. 269). The students did not perceive their actions as cheating. Many students do not see any ethical issues with unpermitted collaborations on assignments or exams. In a review of their findings of a study of academic integrity among business students, Cole and Swartz (2013) state,

> Students' perspectives on the use of resources in exams, sharing work with others and using material not expressly allowed by the instructor were unexpected. There seems to be an acceptance of 21st century technology (that enables cheating) as a legitimate and in some cases, necessary, part of the educational toolkit. (p. 744)

In a YouTube video that provides detailed instructions on how a student can hack into the code of online multiple-choice tests to obtain the correct answers, the narrator starts out by stating, "Today I'm going to show you, … I'm not going to say cheat, but, … how to get the answers on online tests" (My PC Channel, March 20, 2014). In another YouTube video, a young man proudly promotes "NoNeedtoStudy.com" by stating what a great job they did taking his math

class and getting him an A (NoNeedtoStudy.com, January 2, 2015). Obviously, these young men do not feel that getting the answers to online tests or paying someone to take your class is cheating or is dishonest.

Many feel that the current culture and/or student subculture have normalized cheating and therefore changed the moral and ethical thoughts surrounding cheating. In one study a student even stated, "In fact, the ability to cheat effectively can be a good indicator of creative intelligence – a somewhat desirable trait" (Kidwell & Kent, 2008, p. S11). Miller and Young-Jones (2012) noted results that "could suggest acceptance of cheating in many academic subcultures" (p. 144) such as the Greek or athletic subculture. Kidwell and Kent (2008) noted a similar finding, pointing to "the temporary social groups of universities, where culture control may result in students' rejection of general society's norms" (p. S14). Wolverton (2016) states that as many as half of college students "say they'd be willing to purchase one (an assignment). To them, higher education is just another transaction, less about learning than about obtaining a credential" (para. 32).

These findings have led to extensive studies trying to determine the subtype of students more likely to cheat. Interestingly enough, across studies, it has been found that cheating is more prevalent among students that are traditional aged (18-24), male, members of Greek organizations, athletes, or business majors (Hart & Morgan, 2010; Kitahara & Westfall, 2007; Lanier, 2006; Roberts & Hai-Jew, 2009; Watson & Sottile, 2010). In addition to the above findings, it has also been noted that student cheating types and levels differ due to the culture of the college or university, instructor attitude toward cheating, and the type of course: humanities versus STEM (Dante, 2016, p. 34; Wolverton, 2016, para. 5; Young, 2016, p. 20). While these may be the groups more likely to cheat, this certainly does not mean that other groups are not cheating.

Perceptions of Online Course Cheating

One area of recent focus involves the analysis of cheating in online courses. Wolverton (2016) stated that "some seven million students, or almost a third of all those attending college, were enrolled in at least one online course last year. If even a small percentage of those students cheated, . . . that translates into tens of thousands of online cheaters each year" (p. 15). There is a widespread perception that cheating is easier and more widespread in online courses than in on-campus courses. McNabb and Olmstead (2009) conducted a study assessing faculty members' beliefs about online versus on-campus cheating. They found that "about one-third believed that, for undergraduate students, an online course is most conducive to cheating" (p. 212). Other researchers have also found evidence that faculty and students both feel that it is easier to cheat in an online course (Watson & Sottile, 2010; Mastin, Peszka, & Lilly, 2009; McNabb & Olmstead, 2009). Stuber-McEwen, Wiseley, and Hoggatt (2009) found that many previous researchers, as well as the students who participated in their study, all held the belief that "more cheating occurs in online courses" (para. 21). Factors leading to this belief include the feeling that online students are "more savvy at utilizing online resources" (para. 3) or that the natural distance between instructor and student in an online setting leads to more cheating.

Many faculty members in McNabb and Almstead's (2009) study felt that it is also harder to identify cheating in online courses. Young (2016) stated, "tech-savvy students are finding ways to cheat that let them ace online courses with minimal effort, in ways that are difficult to detect" (p. 19). Recent advances in technology to thwart cheating are not keeping up with technology advances in cheating. Wolverton (2016) cited studies done in which professors knew students were cheating and it was found that "they didn't spot paid test takers, purchased papers, or coordinated assignments. . . . Even when professors knew that students were cheating, and were trying to catch them, they came up short" (para.16-17). In another study in which professors were trying to catch students who paid a company to complete their course, both instructors gave the "cheating" student an A and "did not detect that . . . (he) was a fraud" (Wolverton, 2016, p. 16).

The distance between the instructor and student as well as the lack of traditional face-to-face contact is felt to increase the likelihood of cheating in an online course. Those who support this belief state that the lack of a relationship between instructor and student affects the student's views of cheating, making it a more acceptable practice. Young (2016) interviewed one student who stated, "he never communicated with the professor directly. It all felt sterile, impersonal, he told me, "If they didn't think students would do this, then they didn't think it through"" (p. 20). A student who does not have to face an instructor eye-to-eye or who does not have a relationship with that instructor will feel less guilt about cheating.

While some argue that online students are typically older and more mature and therefore, less likely to cheat (Miller & Young-Jones, 2012; Watson & Sottile, 2010), others use these same student features to point to an increased tendency for such students to cheat. Adult learners have "increased pressure to acquire advanced education and degrees in order to survive in the current economic climate" (Trenholm, 2007, p. 284) and therefore, have more pressure to do well, which leads them to cheat. Wolverton pointed out that students who hire companies to complete courses for them include all types, including non-traditional adult students who are "too busy to pursue the advanced degrees they've decided they need" (2016, para. 5). Hoisington (2017) stated that one professor recognized that many of his non-traditional working students "Sometimes . . . just get so caught up in their work schedule and their other classes that they do not have time to do it so they cut and paste something" (para. 9).

Online Versus On-Campus Cheating

The results of studies attempting to determine whether there is more cheating in online or in on-campus classes reveals that the findings are mixed, and there is no overriding consensus. There have been studies that have found more cheating in online classes than in on-campus classes. In one such study, Lanier (2006) surveyed students at a large state university who were enrolled in criminal justice and legal studies classes. He compared cheating behaviors of students in online versus traditional lecture courses and found that the students reported cheating at significantly higher rates in online than in on-campus courses (41.1% compared to 20%) (p. 249). In addition, he found that 40% of students admitted to "helping other students with online exams…. Compare[d] to only 13.7% who report[ed] helping out other students during lecture exams" (p. 253).

Other studies have found that there are no significant differences in cheating between students in online versus on-campus classes. Krsak (2007) reported that a study completed in 2002 found that the "prevalence of cheating in a single online class was only 3%, which is not significantly higher than traditional courses" (p. 160). Cole and Swartz (2013) conducted a study in which students were asked whether they "thought that the precepts of academic integrity (honesty, fairness, respect, responsibility and trust) were applicable to the same degree in the online environment as in the classroom" (p. 742). Sixty-five percent of students responded that they did feel the precepts applied to the same degree in both settings.

Many studies, however, have found that there is, in fact, more cheating in the on-campus setting than in the online setting, such as in a study of students at a private, mid-sized Christian university in the Midwest by Stuber-McEwen, Wisely, and Hoggatt (2009). They found that this was due in part to more unplanned, "panic cheating" (para. 12) among on-campus students. Watson and Sottile (2010) conducted a study of students at a mid-sized university in Appalachia in which they asked students to self-report cheating activity based on a number of statements such as "I have cheated on an assignment, quiz, or a test" or "I have used instant messaging through a cell phone or handheld device during a quiz or exam." They found that "for almost every individual survey statement, more students admitted to inappropriate behavior in face-to-face classes than in on-line courses" (para. 14). Likewise, an Australian study asking students to self-report cheating behaviors found that 78% of on-campus students "had cheated at least once" (Kidwell & Kent, 2008, p. S8) compared to only 35% of online students. Further analysis also showed that on-campus students had a higher incidence of cheating more than two times. More cheating in on-campus than online courses was also revealed in a study of nursing students. The researchers noted that "most of the cheating behaviors that were reported at significantly higher rates in the traditional classroom group involved collaborative cheating behaviors" (Hart & Morgan, 2010, p. 502). Further analysis of their data led them to conclude that since these types of cheating behaviors required student interaction, more cheating occurred in the traditional classroom setting where students had the opportunity to develop closer relationships.

While a review of the literature reveals that students may be cheating more in on-campus classes, the belief that online classes have a higher rate of cheating remains. In spite of the results found in these studies, many still believe that cheating is easier and is occurring more often in the online setting. This belief can negatively impact the perceived quality of online courses and the academic reputation of an institution.

Implications of Academic Dishonesty on Online Education

Despite the fact that research has not demonstrated a significantly higher rate of cheating in online courses, the perception that cheating is more widespread in such courses still exists. This perception, coupled with the huge growth in the number of online course offerings in the last 10-15 years, has led to an increased emphasis on online course cheating. Young (2016) stated "the issue of online cheating may rise in prominence, as more and more institutions embrace online courses. The promise of such systems (online education) is that education can be delivered cheaply and conveniently online. Yet as access improves, so will the number of people gaming the system" (p. 20). This begs the questions posed by Lanier (2006): "Is the mass online movement driven by the need to improve education? Or is the motive simply to accommodate

the economic concerns and access needs of institutions of higher learning?" (p. 259). If the movement is to improve education, then issues of online course cheating must be addressed, whether they exceed or fall below cheating in on-campus courses. The perception of a higher level of cheating in online courses affects the perception that many hold of online education. While there are advantages, there is still a level of discomfort with online education. As Heberling (2002) claims, "a major reservation seems to center on the issue of cheating and plagiarism in the online classroom" (para. 1).

The issues and perceptions of academic integrity in online education must be addressed by universities in order to maintain their reputation as high-quality educational institutions while also growing their online course offerings. "The issue of academic honesty is a sensitive one for a university because it is so central to the individual learner's self-identity, the campus's academic mission, the university's reputation, and the qualifications it confers" (Roberts & Hai-Jew, 2009, p. 182). Roberts and Hai-Jew (2009) stated, "at universities, a reputation for poor academic honesty will dilute degrees and potentially threaten accreditation" (p. 185). According to Shyles (2002) "failures to ensure academic integrity and quality control may over time erode institutional credibility, ultimately leading to challenges to accreditation, in addition to a loss of reputation among institutions with high academic standards" (p. 2).

Kitahara and Westfall (2007) expressed concern that the significant increase in student cheating in any setting is indicative of "shifts in society's attitudes toward academic integrity and corresponding views of what is acceptable and ethical behavior" (p. 266). Their review of the literature shows that cheating has increased throughout all levels of education, including elementary education. With this in mind, it is easy to jump to the following conclusion: if students cheat throughout their academic studies, "can we expect anything less of students once they finish their education and move into their careers?" (Stuber-McEwen, Wiseley, & Hoggatt, 2009, para. 25). This concern has been raised by multiple researchers and could directly affect all of us. When surmising that the current level of academic dishonesty will lead to an increase in workplace dishonesty in the future (Hart & Morgan, 2010) one must consider: Do we want a doctor who cheated his way through medical school, an accountant who had others take his exams, or an attorney who purchased her term papers?

Methods of Insuring Academic Integrity

Many feel that higher education instructors cannot rid their courses of cheating entirely, so they must learn to teach with that in mind (Roberts & Hai-Jew, 2009). A group of academicians, was noted to agree that "instead of trying to catch, prosecute and punish cheaters and plagiarism, thereby placing ourselves in an adversarial role, we (should) simply acknowledge that they cheat and challenge them with alternative types of work" (Lanier, 2006, p. 259).

Others argue that one role of educators is to ensure that young adults learn ethical decision-making as a part of their higher education and that this speaks to the role college has in the development of a student into "a good person and a good citizen" (Roberts & Hai-Jew, 2009, p. 185). Followers of developmental theory see cheating as a part of young adult identity development. They would argue that "college students are also seeking to develop reasoning for moral judgement and decision making" (Roberts & Hai-Jew, 2009, p. 186). Thus, faculty should

develop methods, such as honor codes or ethics classes (Watson & Sottile, 2010), that aid in this development. By demanding academic integrity, faculty can help students begin "to demonstrate a mutual respect of oneself and others while incorporating appropriate ethical decision making strategies into daily life" (Roberts & Hai-Jew, 2009, p. 186).

Regardless of whether we are trying to "beat the cheating," aid in the moral and ethical development of students, or produce skilled graduates, we are directed to the understanding that we cannot just accept cheating in any higher education setting, online, or on campus. "Employers want to hire graduates who are knowledgeable, ethical, and honest" (Barnes & Paris, 2013, para. 30). With the current focus on new graduates' needs for soft skills, it becomes even more important for faculty to focus on ensuring students are ethical and honest as well as truly knowledgeable in their field of study.

A decade ago, federal law addressed academic integrity in online courses. According to the 2008 Higher Education Opportunity Act, accredited institutions and programs must be able to demonstrate that they "have processes through which the institution establishes that the student who registers in a distance education or correspondence education course or program is the same student who participates in and completes the program and receives the academic credit" (Higher Education Opportunity Act, 2008). This law places an additional onus on the academic program and higher education institution to ensure that academic integrity is upheld in online courses. While this may seem cumbersome, it is based on a basic tenet of higher education. "Fundamentally, administrators and faculty acting as agents in society are responsible for producing a skilled and educated graduate. They are responsible to ensure that the paper certificate or degree accurately reflects the student's ability" (Trenholm, 2007, p. 287). As educators, it is our responsibility to ensure students have gained the required knowledge that their course completion, degree, or certificate conveys. This responsibility exists whether we see the students face to face in the classroom or only interact with them virtually online.

There are a wide variety of methods that have been used to help detect and prevent cheating in online classes. Perhaps one of the easiest, low-tech methods is proctoring exams and other assignments. While this may serve as an effective method to prevent cheating, it also discounts the convenience of the online setting for both students and faculty. Arranging proctoring locations for out-of-town or even out-of-state students can be difficult and time consuming for faculty and students. Still, online proctoring companies may alleviate some of the issues and have become popular in recent years. Such companies claim that they "are better than in-person proctoring" with one company executive stating, "Frankly, we can spot any cheating" (Kolowich, 2016, p. 25). However, some would argue that "the duty of preserving academic integrity should not be entrusted to online watchers who are often thousands of miles from the test-takers" (Kolowich, 2016, p. 24).

The opposite end of the spectrum involves high-tech methods that can include anything from requiring students to use web-cams, to handwriting analysis, fingerprint analysis, tracking of IP addresses, voice recognition software, and even iris scans or facial recognition. Keyboard dynamics "which attempt to verify students' identities on the basis of their typing patterns" are also being used (Wolverton, 2016, para. 56). CSU-Global is even "administering random identity checks on its students. The tests require them to provide answers to personal questions like what

banks service their loans or what streets they've lived on" (Wolverton, 2016, para. 58). These tests can be very effective in ensuring that the students who complete the course or assessments are indeed the students registered for the course. However, they are obviously all much more complicated and costly, both for the institution and the student. For example, CSU-Global spends approximately $60,000 a year on their identity check program (Wolverton, 2016, para. 58).

There are a number of middle-of-the-road methods that may or may not be as effective as proctoring or the use of technology. One such method is to "search for ways to increase online students' connectedness to the online community" (Stuber-McEwen, Wiseley, & Hoggatt, 2009, para. 29). By providing ways in which online students feel closer to the instructor and their peers, it is felt that they will feel less isolated and therefore, more a part of community (Baron & Crooks, 2005). Keeping online classes small and encouraging interactive assignments and discussion can also lessen students' feelings of isolation in the online education environment. Since it is felt that isolation and the disconnect between the student and instructor can make students feel as if cheating is more acceptable, a feeling of belonging and community should discourage such tendencies (Barnes & Paris, 2013, para. 1; Stuber-McEwen, Wiseley, & Hoggatt, 2009, para. 3).

Another method that can be used to discourage online cheating is a change in the design of online courses. An understanding that online students may be more likely to use forbidden resources during exams can result in assessment designs that embrace this concept or lessen the ability for students to use those resources. This can include open book exams or modified assessment activities that allow the use of resources. Using more essay exams and project-oriented assessments or having students submit papers or assignments in stages can provide for an assessment of student learning that allows the use of resources. When traditional assessment methods are needed, using timed exams, randomized question pools, and frequent assessment modifications can be useful in discouraging the use of books, notes, and other resources. As many online quizzes and exam questions are available on the internet, semester by semester changes in questions may be needed to discourage students from simply looking up all the answers. While these methods may require the instructor to take additional time to modify their course or assessments, they can be effective in meeting the goals of student learning while controlling academic dishonesty (Baron & Crooks, 2005).

The final method that may be effective in decreasing cheating in online classes is an institutional commitment to academic integrity. Cole and Swartz (2013) sum this approach up nicely.

> The responsibility for maintaining academic integrity in the classroom as well as in online settings is a shared one. It begins with the institution's creating a culture where academic dishonesty is not tolerated. It is maintained by the instructor in the design of courses and follow-through when violations occur…. Of course at the center is the student…. [for whom] the best approach would be the provision of clear and student-friendly instructions on why and how to make academic integrity central to the learning process. (p. 745)

A true institutional commitment to academic integrity with clear policies and procedures for violators has been shown to reduce cheating (Roberts & Hai-Jew, 2009; Stuber-McEwen,

Wisely, & Hoggatt, 2009; Lanier, 2006; Baron & Crooks, 2005). Actively involved faculty who discuss academic integrity and disciplinary procedures for violators can be effective in discouraging cheating in the classroom as well as online. Honor codes, in which students attest to the fact that their work is their own, can also be effective deterrents. These can be built in to online assignments and assessments (Lanier, 2006).

Many institutions and faculty use some combination of the above methods. When considering methods to discourage cheating, faculty and institutions have to consider effectiveness, cost efficiency, and acceptability to students. In addition, such methods must not interfere with the learning process. This can be a tall order which is why there are a myriad of methods currently being used. There is certainly no one best answer at the current time. However, the onus is on the faculty to include honor codes with assignments and assessments, be creative with assessments, spend the time to ensure plagiarism and other cheating is not occurring, and make efforts to connect with students in online courses.

Conclusion and Research for the Future

While there is little evidence that cheating is more prevalent in online courses, many believe that it is an issue that hinders complete acceptance of and success of online education. The mere belief that online education does not have the same rigor in the area of academic integrity can create lower levels of acceptance of online degrees or certificates. While some may say that cheating is inevitable and we should just accept it, there are clear-cut reasons that this is not a reasonable practice. As educators, it is our duty to prepare students who are knowledgeable in their field as well as ethical and honest. Our role is to use our courses to reach this goal.

With that in mind, it is important to consider academic integrity in online courses, regardless of the rate at which cheating in such courses is occurring. There are many methods that are currently being used to insure such integrity. These methods have varying levels of success dependent upon many internal and external variables. Further research into the use of and success of these methods is needed in order for educators to be fully informed when designing online courses. What variables affect the success of these methods? Which methods are the most effective for the cost incurred? Which methods are the most acceptable to students and disrupt the learning process the least? These are all questions that must be answered by further research.

As the offerings of online courses continue to grow and as more programs and institutions implement online degrees and certificates, these issues will continue to grow in magnitude. Further research in this area would help prepare educators and institutions in the provision of the highest-quality online educational offerings.

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