

# Student Perceptions of Credibility and Enhancing the Integrity of Online Business Courses: A Case Study

Michael P. Watters  
Louis Dawkins Professor of Accounting  
Henderson State University  
(corresponding author)  
[watterm@hsu.edu](mailto:watterm@hsu.edu)  
870-230-5345

Paul J. Robertson  
Adjunct Professor of Accounting  
La Rochelle Business School

Rena K. Clark  
Associate Professor of Business Information Systems  
Henderson State University

## Student Perceptions of Credibility and Enhancing the Integrity of Online Business Courses: A Case Study

### ABSTRACT

Students enrolled in business courses were asked to complete a survey questionnaire pertaining to cheating in online business courses. Students were asked about their perceptions of cheating in online business courses as well as their opinions regarding the credibility of online courses and the effectiveness of different control techniques that may be used to prevent cheating. Eighty-one percent of respondents indicated that they had knowledge of or had observed cheating occurring in an online business course, 50 percent indicated they believe that there is more cheating in online courses (compared with traditional courses) and 34 percent indicated that online courses are less credible than traditional courses. Requiring paper-based testing in a proctored classroom was deemed by respondents to be the most effective technique to control cheating. The authors recommend the use of online assessments in a testing center.

Keywords: Online courses, business, cheating, academic dishonesty, student perceptions

## **INTRODUCTION**

Over 6.7 million students were taking at least one online course during the fall 2011 term, an increase of 570,000 students over the previous year. Thirty-two percent of higher education students now take at least one course online (Allen and Seaman, 2012). One concern of many faculty and administrators relates to the academic integrity of such courses compared with traditional face-to-face courses. The long-term success of online education may hinge not only on the actual credibility of such courses but also the perceived credibility of such courses among students. Acceptance of online courses may likely suffer if they are perceived to be more susceptible to cheating even if, in substance, online courses are just as secure from cheating as traditional face-to-face courses. Thus an understanding of the perceptions and opinions of students regarding cheating in online courses is important. This study surveys students at a single university, and, though limited in scope, it should still be useful to faculty and administrators who are interested in online instruction.

## **LITERATURE REVIEW**

Extensive research has been completed regarding cheating in traditional face-to-face courses, for example, (Bell & Whaley, 1991; Cizek, 1999; Whitley, 1998; Lathrop & Foss, 2000; McCabe, Trevino & Butterfield, 2002; Dick et al, 2003) but research regarding cheating in online courses is limited (Rowe, 2004; Grijalva, Nowell, & Kerkvliet, 2006; Lanier, 2006; Underwood & Szabo, 2006; Harmon & Lambrinos, 2008, Stuber-McEwen, Wiseley, & Hoggatt, 2009; Watson & Sottile, 2010). Many studies of cheating in online courses have attempted to measure and analyze actual cheating of students, with limited reporting and analysis of demographic data (Grijalva, Nowell & Kerkvliet, 2006; Naude & Horne, 2006; Watson & Sottile, 2010). Other studies have addressed cheating solely from the instructor's or

administrator's perspective (Tastle, White & Shackleton, 2005) or have provided very limited information regarding student perceptions of cheating in online courses (Kwun, Alshave & Grandon, 2005). Additionally, faculty and students may not have the same perceptions of cheating in online courses; faculty may believe that cheating is easier to undertake compared with student perceptions of cheating (Kwun, Alshave & Grandon, 2005).

## **METHODOLOGY**

The authors surveyed students at small, public, liberal arts university enrolled in business courses during the spring 2011 semester. University enrollment was approximately 3,500 students and business school enrollment was about 340 students. The business program has offered a significant number of online courses each semester for many years and significant number of students have enrolled in and completed such courses. Students were asked, but not required, to complete a paper version of the questionnaire which was administered in the classroom. A total of 184 useable questionnaires were collected; a response rate of 54 percent of business school enrollment.

The two-page survey questionnaire was comprised of four sections. Section one was designed to gather demographic data about the respondent. Section two gathered data regarding the respondent's perceived knowledge of cheating in online courses. In section three, the respondent was asked to evaluate the effectiveness of different possible techniques that may be used to prevent cheating in online courses. Finally, section four gathered data about the student's opinions of the credibility of online courses versus traditional face-to-face courses.

This study is different from earlier studies of cheating in online courses in three ways. First, the authors gathered certain demographic data related to respondents not gathered in several other studies, such as gender, GPA, academic classification, employment, and age.

Second, the data gathered in this study represents respondents' perceptions of cheating in online courses. Third, students were asked to provide their opinions regarding the effectiveness of different possible techniques that may be used to prevent or deter cheating in online courses as well as their opinions regarding the credibility of online courses.

## **RESULTS**

This section is organized into four sub-sections to correspond with the four sections of the survey.

### **Section 1: Demographic Data**

Table 1 summarizes the demographic characteristics of the students responding to the survey. Of the 184 students responding to the survey 52 percent were male and 74 percent were under the age of 25. Of those responding, 21 percent were sophomores, 28 percent were juniors and 51 percent were seniors. Respondents also reported GPA's ranging from less than 2.0 to above 3.5. Regarding employment, 36 percent of respondents indicated that they work part-time and 29 percent work full-time. Finally, in terms of online courses previously completed, only 4 percent of the 184 students indicated that they had not completed an online course while 60 percent of the students responding indicated that they had completed four or more online courses. So most of the respondents could be considered to have had relatively significant direct experience with online courses.

### **Section 2: Student Perceptions**

To gather evidence regarding student perceptions of cheating in online courses, section two of the survey asked students to respond to several questions regarding their knowledge or observation of different types of cheating (Table 2). Eighty-one percent (149) of all respondents

indicated that they had observed or had knowledge of cheating occurring in online courses. The 149 students indicating knowledge of cheating were also asked to indicate the type of cheating that had occurred. Regarding receiving help with an online exam, 50 percent of students indicated that they had knowledge of such cheating. Sixty-eight percent indicated that they had knowledge of students receiving help with online homework. Fifteen percent of the 149 respondents indicated that they had knowledge of another person completing an exam for another student while 21 percent indicated they had knowledge of another person completing online homework for another student. Another area of concern was the degree to which students indicated knowledge of the use of prohibited materials such as notes and textbooks when completing online exams/quizzes. Forty-two percent indicated knowledge of someone using prohibited materials when completing an online exam while 41 % indicated knowledge of material from the web being used to complete an online exam. Overall results indicate a rather high level of student perception of cheating occurring on online assessments and a rather significant range of activities.

Of particular concern was the high percentage noted with respect to students receiving help with online exams and quizzes, 50 percent and 62 percent, respectively. Percentages were computed for respondents observing or having knowledge of students receiving help on online exams/quizzes to determine if the perception of this type of cheating was in some way correlated with factors such as gender, age, time pressures (part-time or full-time workers), intellectual attribute (GPA), etc. Overall, results indicate that students' perceptions of this type of cheating is fairly evenly distributed across all demographic variables. As might be expected, overall, seniors had the highest level of perceived cheating and sophomores the lowest. One interesting finding was that, overall, the highest perception of this type of cheating according to GPA was

reported in the 3.0-3.49 GPA category, 60 percent. In summary, most respondents indicated that they believe that there is cheating occurring in online courses across all of the different assessments used, exams, quizzes and homework.

Section two of the survey also allowed respondents to provide written comments about their knowledge of cheating that had occurred in an online course. Three responses were insightful.

- I knew of a student at another school who paid someone to take an entire class for him.
- People are printing off old quizzes to help on the online exams, often the same questions.
- People get together and compile answers as they take the quiz/homework/tests.

The final part of section two of the survey gathered evidence regarding student perceptions of cheating in different disciplines. Students were asked to rank the degree of cheating they believed to have occurred in each of seven different business disciplines, with responses ranging from “1” indicating the most cheating to a response of “7” indicating the least cheating. Tables 3 and 4 show that the greatest perception of cheating among respondents was related to business information systems (BIS), an average ranking of 2.7 and receiving 34 percent of all the “1” rankings made by students. Accounting followed with a ranking of 3.6 and percent response of 23 percent. Lowest levels of perceived cheating reported by HSU students related to marketing, 4.5, (3%) and general business courses, 4.8, (11%). The results are likely a function of the number and duration of online course offerings in each discipline. Additionally, results may be a function of factors such as, type of assignments—online exams, writing assignments, homework, type of material—quantitative versus non-quantitative and type of

assessment techniques used, online exams versus in-class exams. Results are consistent with the notion that greater exposure to online courses is correlated with increased perceptions of cheating.

### **Section 3: Student Evaluation of Techniques**

Section three of the survey gathered evidence regarding student assessment of techniques that may be used to prevent cheating in online courses. Students were asked to judge six different techniques as effective or not effective, or indicate that they had no opinion (see Table 5). Generally, the most effective technique was believed to be requiring examination in a proctored classroom/lab setting. The most effective technique indicated was testing in a traditional classroom setting where a proctor is present--75 percent of respondents ranked this effective and only 8 percent ranked it ineffective. Sixty-eight percent of the respondents indicated that they believed requiring that online exams be taken in a proctored lab would be effective while 66 percent indicated as effective the use of random question generation on online exams where every exam is uniquely different. Interestingly, the techniques receiving the lowest approval rating was the use of a web cam that may be used by the instructor to watch the student completing an online exam and delivery of online exams on the same date and at the same time. Only 49 percent of respondents believed that these would be effective techniques.

### **Section 4: Student Opinions**

Finally, in section four of the survey, students were asked to indicate whether they agreed or disagreed (or had no opinion) with respect to several statements regarding the credibility/integrity of online courses (Table 6). Generally, results indicate that student perceptions regarding academic integrity of online courses is fairly negative. Student responses to the statement "There is more cheating in online courses compared with traditional courses"



were 50 percent agreeing, 12 percent disagreeing and 38 percent indicating that they had no opinion. Such responses seem to be contradicted when compared with responses to the statement, “Online courses are less credible than traditional courses.” Only 34 percent agreed compared with 43 percent that disagreed. Respondents were divided with respect to the statement, “Because of cheating, students learn less in online courses.” Thirty-six percent agreed while 33 percent disagreed and 31 percent had no opinion. One area of somewhat general agreement was found in responses to the statement, “There is greater opportunity to cheat in online courses,” with 64 percent agreeing and only 13 percent disagreeing; Again, interesting, considering that only 34 percent of respondents indicated agreement with the statement that online courses are less credible than traditional courses. Finally, with regard to the statement, “Most cheating in online courses is planned in advance,” only 32 percent of respondents agreed with this statement while 23 percent disagreed and 45 percent had no opinion. Overall, most respondents believe that there is greater opportunity for cheating in online courses, half believe that more cheating is actually occurring and approximately one-third believe online courses are less credible than face-to-face courses.

Section four of the survey also allowed respondents to provide any final written comments that they wanted to make about online courses in general. Student comments were numerous but could be categorized into two important themes. The majority of respondents indicated a preference for online courses compared with traditional courses because of greater flexibility, reduced time spent driving to campus, ability to work at own pace, ability to repeat lectures and enhancing the to the ability to balance school, work, home life.

A second theme that emerged from a small minority of respondents was a negative perception of online courses because of an expectation to have face-to face exposure with

faculty, difficulty receiving help, and lack of in-class interaction with other students and the instructor.

## **RECOMMENDATIONS**

Even though the findings of this study may not be extrapolated to other business schools, the results should still be useful to faculty and administrators interested in online education. To enhance the integrity of online courses, faculty and administrators should consider employing several different control techniques. Requiring students in online courses to complete assessments in a proctored classroom/lab setting or require students to take exams and quizzes at an approved testing center which requires proof of identification and supervises students should enhance the level of integrity achieved comparable to that of traditional classes. Professional proctoring services could also be utilized.

Creation of unique exams/quizzes generated for each student by the computer from a large question pool so that students don't get the exact same set of questions as other students should enhance control. If the number of questions in a question bank is limited then faculty could utilize features such as question shuffling within an exam and answer shuffling within individual questions so that even if students have the same set of questions, they will not be in the same order and the correct answer will not be the same letter or number. Additionally, limiting the time that a student has to complete a test or exam may reduce the likelihood of test takers "harvesting" exams questions and disseminating them to other students. Other techniques that may be used to possible enhance security/validity of online assessments include the following items.

- Use software to restrict the IP address of the computer a student may take the

exam or test from so that they may only take it from certain computers. Load these computers with software to control what may be opened on the screen to ensure that students can only open the web site you want them to open.

- Reduce the percentage of points associated with work completed in un-monitored environments as a part of the whole grade for the course.
- Limit or eliminate the use of traditional testing techniques like chapter quizzes and examinations and use instead other assessment techniques like projects and papers, or even oral exams (via skype, for example).
- Where possible, use individualized assignments requiring critical thinking so that each student must submit a customized response.

## **CONCLUSION**

While many students surveyed in this study appear to believe that online courses are a credible alternative to traditional courses, a rather significant perception of cheating is evident. Still, because this study did not extensively address cheating in traditional courses, it is unclear if respondents believe that cheating in online courses is significantly worse than traditional courses. The perception of credibility may be enhanced by requiring students in online courses to complete assessments in a proctored classroom or lab setting. However, the financial costs and related logistical issues associated with such a policy diminish the benefits of online courses. As online courses and learning assessment techniques continue to evolve additional research could be directed at developing assessments that are legitimate measures of student learning whether used in traditional or online courses.

## REFERENCES

- Allen, I. E. and J. Seaman (2013). "Changing Course: Ten Years of Tracking Online Education in the United States. Sloan Consortium/Babson Survey Research Group.
- Bell, J. B., & Whaley, B. (1991). *Cheating and deception*. New York: Transaction Publishing.
- Cizek, G. J. (1999). *Cheating on tests: How to do it, detect it, and prevent it*. Mahwah, NJ: Lawrence Erlbaum.
- Dick, M., Sheard, J., Bareiss, C., Carter, J., Joyce, D., Harding, T., & Laxer, C. (2003). Addressing student cheating: definitions and solutions. *ACM SIGCSE Bulletin*, 35(2), 172-184.
- Grijalva, T. C., Nowell, C. and Kerkvliet, J. (2006). Academic honesty and online courses. *College Student Journal*, 40(1), 180-185.
- Harmon, O. R., and Lambrinos, J. (2008). Are online exams an invitation to cheat? *Journal of Economic Education*, Spring, 116-125
- Kwun, O., Alshave, K. A., and Grandon, E. (2005). Instructor and student perceptions of the online teaching/learning environment: A cross-cultural study. *Academy of Educational Leadership Journal*, 9(3), 105-130.
- Lanier, M. (2006). Academic integrity and distance learning. *Journal of Criminal Justice Education*, 17(2), 244-261.
- Lathrop, A., & Foss, K. (2000). *Student cheating and plagiarism in the Internet era: a wake-up call*. Englewood, CO: Libraries Unlimited.
- McCabe, D. L., Trevino, L. K. and Butterfield, K. D. (2002). Honor codes and other contextual influences on academic integrity: A replication and extension to modified honor code settings. *Research in Higher Education*, 43(3), 357-378.
- Naude, E. and Horne, T. (2006). Cheating or 'collaborative work': Does it pay? *Issues in Informing Science and Information Technology*, 3, 459-466.
- Stuber-McEwen, D., Wiseley, P., and Hoggatt, S. (2009). Point, click, and cheat: Frequency and type of academic dishonesty in the virtual classroom. *Online Journal of Distance Learning Administration*, 12(3), 1-10.
- Szabo, A. and Underwood, J. (2003). Academic offences and e-learning: individual propensities in cheating. *British Journal of Educational Technology*, 34(4), 467-477.
- Underwood, J. and Szabo, A. (2006). *Active Learning in Higher Education*, 5(2), 180-199.
- Tastle, W. J., White, B. W., and Shackleton, P. (2005). E-learning in higher education: The challenge, effort, and return on investment. *International Journal on E-Learning*, 4(2), 241-251.

Watson, G. and Sottile, J. (2010). Cheating in the digital age: Do students cheat more in online courses? *Online Journal of Distance Learning Administration*, 13(1), [Online] Available at: <http://www.westga.edu/~distance/ojdl/spring131/olt131.html>.

Whitley, B. (1998). Factors associated with cheating among college students: A review. *Research in Higher Education*, 39(3), 235-273.