Student perceptions of cheating in online business courses

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ABSTRACT

Accounting majors enrolled in business courses at two different universities were asked to complete a survey questionnaire pertaining to cheating in online business courses. Specifically, students majoring in Accounting were asked about their awareness of cheating in online business courses as well as their opinions regarding the credibility of online courses and the effectiveness of different techniques that may be used to prevent cheating. Forty-six percent of students indicated that they had knowledge of students receiving help with an online exam/quiz. Overall, 75 percent of respondents indicated that the most effective technique to prevent cheating on online exams/quizzes is the use of random question generation so every exam is uniquely different. Forty-two percent of respondents disagreed with the statement "Online courses are less credible than traditional courses." While the potential for cheating in online courses seems to be well perceived, the perception of actual cheating in online courses seems to vary considerable among the students covered in this study.

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

INTRODUCTION

Extensive research has been completed regarding cheating in traditional face-to-face courses, (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). The lack of research related to student cheating in an online environment is understandable as much of the growth in offerings of such courses at traditional not-for-profit universities has occurred over only the last decade. 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). This study is different from earlier studies of cheating in online courses in several ways. The authors surveyed students enrolled in business courses and asked them to provide information regarding cheating in online courses that they had actually observed or that they believed had occurred in online courses. Therefore, this study could include data related to self-reported cheating as well as data related to cheating of another student that was observed (believed to have occurred) by the respondent . Ultimately, the data gathered in this study represents respondents' perceptions of cheating in online courses. Second, the authors gathered certain demographic data related to respondents not gathered in several other studies, such as gender, GPA, academic classification, employment, and age. Finally, 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 cheating in online versus face-to-face courses.

The business schools at each university where students were surveyed have significant experience related to online courses, that is, both offer a significant number of online courses and have offered such courses for many years. Additional, each university has a fairly significant number of students enrolled in and faculty teaching online courses. With respect to content delivery, most of the online courses in each business school are somewhat similar and may be characterized in general as providing course content via video lectures and/or other digital media such as PowerPoint presentations. However, student assessment techniques vary greatly among faculty and across courses in terms of type of assessment used—exam, quiz, or project; delivery of assessment—in-class or online; location of assessment—campus lab, classroom, or off site, access to assessment—timed or untimed, scheduled date or unlimited access, etc. For example, some instructors have assessed students by the sole use of exams and quizzes delivered to the student via computer at an off-site location with no oversight or proctoring. Other faculty required students in online courses to complete exams and quizzes in a proctored classroom environment identical to traditional courses. Still other faculty used a variation of the two extremes, requiring students to complete exams in a proctored classroom but allowing quizzes and homework, which make up a smaller percentage of overall course grade, to be completed on-line without proctoring. It is the authors' opinion that the diversity of assessment techniques noted at the two schools of business represented in the study is probably indicative of the state of student assessment in online courses at most other business schools. That is, the authors believe that most, if not all of the business schools that offer online courses do not utilize a standardized

method of assessment that is required to be used in all online courses. Therefore, 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.

One problem with having so many different assessment techniques is that it seems to lead people to believe that there is a greater likelihood of cheating occurring in online courses. Intuitively, people may expect that a significant variation of assessment techniques across online courses may result in many different possible levels of student cheating, from extensive to minimal. For example, it seems likely that most people may feel that there is a greater probability that students are more likely to cheat, and may cheat to a greater extent on exams offered online at an off-site location, like a dorm room, compared with those students that must complete online exams delivered through a computer in a campus lab in the presence of a proctor. Further, such extensive variation in student assessment techniques may lead many to believe that there is the potential for many types of actual student cheating, such as the use of prohibited materials like textbooks and notes in completing an online exam or assistance from another individual.   Again, it seems logical that many would expect that as the assessment becomes more removed from the direct control of the professor, then the types of cheating employed by students would increase. For example, in a traditional classroom setting, compared with online delivery, one may believe that, generally, students are somewhat more limited in the way they may possibly cheat, for example, like a student using crib notes or looking onto the paper of another student. But if a student is allowed to complete an untimed, online exam in his dorm room then most people would probably be of the opinion that that there are many scenarios of possible cheating— like the student having someone else complete the exam for him, or the student having others look up answers to exam questions in notes or textbook, or the student copying material from the web and using it in lieu of his own written response to an essay question.

The purpose of this study was to gather data regarding student perceptions of cheating in online courses, specifically business courses. The authors chose to gather data regarding student perceptions for several reasons. First, 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). Second, students may have greater exposure to or knowledge of actual academic dishonesty and therefore their perceptions of cheating may be more representative of the true state of cheating compared with the perceptions (experiences) of faculty and administrators (Rowe, 2004). Finally, one could argue that the ultimate long-term success or failure of online education may hinge on the perceived credibility of such courses among students. Therefore, it is of critical importance that faculty and administrators have an understanding of the perceptions and opinions of students regarding cheating in online courses so that the shortcomings of online courses may be identified and resolved thereby enhancing the quality and credibility of such courses.

METHOD

The authors surveyed accounting majors enrolled in accounting courses at Henderson State University (HSU) and the University of Texas at Brownsville (UTB) during the spring 2011 semester. HSU is a small, public, liberal arts college located in southern Arkansas with a total enrollment of 3,750 students and a business school enrollment of 1,200 students, of which 84 are declared accounting majors. UTB is a large, comprehensive university with a total enrollment of 20,000 and school of business enrollment of 4,500 students of which 200 are declared accounting majors. Accounting majors were asked, but not required, to complete a

paper version of the questionnaire which was administered in the classroom. UTB students returned a total of 60 usable questionnaires, a 30 percent response rate, while HSU students returned 38 questionnaires, a response rate of 45 percent.

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 perceptions of the credibility of online courses versus traditional face-to-face courses. The HSU school of business has offered online and partially online courses since 2002. Faculty at HSU have several different tools they may utilize to create content and deliver it via the web including, Camtasia, Angel LMS, etc. HSU's business school's spring 2011 course offerings included 50 traditional courses, 15 partially-online courses, and 7 fully online courses. UTB's school of business has offered online and partially online courses since 2002. Faculty at UTB also have several different tools available for content creation and delivery including, Blackboard LMS, Tegrity, Camtasia, Angel LMS, etc. The UTB business school's spring 2011 course offerings included 50 traditional courses, 25 partially-online courses, and 10 fully online courses.

RESULTS

Respondent Demographics

Table 1 summarizes the demographic characteristics of the 98 students responding to the survey. Of the 98 students responding to the survey 54 percent were female and 70 percent were under the age of 25. Of those responding, 21 percent were sophomores, 47 percent were juniors and 32 percent were seniors. Respondents also represented GPA's ranging from 2.0 to above 3.5. Regarding employment, 46 percent of respondents indicated that they work part-time and 21 percent work full-time. Finally, in terms of online courses completed , 15 percent of the 98 students indicated that they had not completed an online course while 74 percent of the students responding indicated that they had completed from one to six online courses. Interestingly, all of the HSU students responding indicated that they had completed at least one online course while 25 percent of UTB respondents indicated that they have had no previous experience with online courses. The demographic characteristics of the respondents are consistent with the demographic characteristics of the population of accounting majors at both universities. The authors believe that the respondents of the survey are representative of the accounting majors currently enrolled HSU and UTB.

STUDENT PERCEPTIONS

Perceptions Regarding Cheating in Online Courses

To gather evidence regarding student perceptions of cheating in online courses, students were asked to respond to several questions regarding their knowledge or observation of different types of cheating (Table 2). In response to a question concerning students receiving help with an online exam/quiz, 46 percent of students indicated that they had knowledge of such cheating. Fifty-five percent indicated that they had knowledge of students receiving help with online

homework.   Three HSU students (8 percent of the 38 respondents) indicated that they had knowledge of another person completing an exam/quiz for another student while 11 UTB students (18 percent of the 60 respondents) indicated they had knowledge of such cheating. 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 on exams/quizzes. Thirty-seven percent of all respondents indicated such knowledge. Results indicate a rather high level of student perception of potential cheating in online delivery and submission of student assessments.

Of particular concern is the high percentage noted with respect to perception of students receiving help on online exams/quizzes (46 percent overall) because such assessments typically comprise a significant portion of a student's overall course grade and if the student is in fact receiving help with an online exam/quiz then the assessment, as a measure of the student's learning, may be meaningless. To examine this perception in more detail, 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, intellectual ability, etc. Table 3 summarizes the results of this part of the study. Overall, results indicate that a fairly significant level of perception of cheating is fairly evenly distributed across all demographic variables. One interesting finding was the percentage responses according to gender. Only 33 percent of HSU male students indicated knowledge of this type of cheating compared with 63 percent of male respondents at UTB. The authors cannot speculate as to a possible explanation for such results. As might be expected, overall, seniors had the highest level of perceived cheating, 52 percent, compared with juniors, 50 percent, and sophomores, 29 percent. This seems logical as one would expect that as students progress through college that they will likely be exposed to more instances of cheating. Another 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, 57 percent. One possible explanation for this result is that students in this GPA range are more cognizant of their relative standing and therefore may have a greater awareness of other (competing) students' behaviors. Age seems to have some correlation with perception of cheating on online exams via receiving help from another person. Overall, ninety-seven percent of respondents under age 25 indicated knowledge of such cheating compared with 64 percent of respondents aged 25 years or older. One possible explanation is that more cheating occurs among younger, less mature students. Another possible explanation is that older students may not be as connected with their peers compared with younger students and accordingly may have less awareness of such cheating.

To gather evidence regarding student perceptions of cheating in different online courses, students were asked to indicate their knowledge of cheating in seven different business disciplines, accounting, economics, finance, general business, information systems, management and marketing (Table 4). Additionally, students were asked to rank the degree of cheating they believed to have occurred in each of the seven different business disciplines, with a responses ranging from "1" indicating extensive cheating to a response of "7" indication slight cheating. Table 4 shows that the greatest perception of cheating among HSU respondents was related to information systems, 55 percent, followed by economics, 37 percent, and accounting, 21 percent. Lowest levels of perceived cheating reported by HSU students related to finance, 8 percent, marketing, 11 percent, and management 13 percent. Conversely, UTB students indicated the greatest perception of cheating in general business online courses, 33 percent, followed by

management courses, 25 percent and economics, 17 percent. UTB respondents indicated knowledge of cheating in online information systems courses 3 percent, finance, 5 percent and accounting, 5 percent. The mixed results are likely a function of the type of assessments used by individual instructors and the frequency and duration of online course offerings in each discipline. For example, if a particular discipline offers relatively fewer online courses compared with other disciplines than one would expect the perception of cheating to be less compared with other disciplines offering many online courses. Respondents' perception of the degree of cheating, reported in Table 5, indicates, overall, that the degree of cheating is perceived to be less in accounting, overall ranking of 5.7, and greatest in management, overall ranking of 3.4. Overall, accounting (5.7), economics (4.8), and finance (4.6) received better marks compared with general business (4.0), information systems (4.3), management (3.4) and marketing (4.0). These results may be a function of many factors such as, for example, type of assignments—online exams, writing assignments, homework, type of material—quantitative versus non-quantitative and type of assessment techniques used, online exams versus projects. The results are useful only because they give an indication of what the respondents—accounting majors-- perceive in terms of degree of cheating by discipline.

Student Evaluation of Techniques to Prevent Cheating

To gather 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 6). Overall, the most effective technique, according to the respondents, is the use of random question generation on online exams where every exam is uniquely different. Seventy-five percent of the respondents indicated that they believed that this techniques would be effective at preventing cheating on online exams. Students also indicated significant support for testing in a traditional classroom setting where a proctor is present, 72 percent believe effective, and requiring that onlineexams be taken in a proctored lab setting, 70 percent believe effective. Interestingly, the technique 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. Only 52 percent of respondents believed that this would be an effective technique. This information may be useful to instructors of online courses when considering the method of assessment to be used in their online courses.

Finally, students were asked to indicate whether they agreed or disagreed (or had no opinion) with regard to several statements regarding the credibility of online courses (Table 7). Student responses to the statement "There is more cheating in online courses compared with traditional courses" were mixed. Forty-five percent of respondents agreed while 21 percent disagreed. This theme was repeated in most of the other statements. For example, in response to the statement, "Online courses are less credible than traditional courses," 38 percent agreed compared with 42 percent that disagreed. Further, student response to the statement, "Because of cheating, students learn less in online courses," indicated that 43 percent agreed while 29 percent disagreed. One area of somewhat general agreement was found in responses to the statement, "There is greater opportunity to cheat in online courses," with 53 percent agreeing and only 13 percent disagreeing. The student responses to the statements in this section of the survey may be interpreted as follows. Generally, while students responding to the questionnaire believe that there is greater opportunity to cheat in online courses, they do not agree that more cheating is actually occurring, compared with traditional face-to-face courses. This possible explanation of results seems to be supported by student responses to the statement, "Most professors are

unaware of the extent of cheating in their online courses." Thirty-eight percent of respondents disagreed with this statement, 22 percent agreed. Thus, while the potential for cheating in online courses seems to be well perceived, the perception of actual cheating in online courses, compared with traditional courses, seems to vary considerable among the students covered in this study.

CONCLUSION

Generally, results indicate that many students surveyed in this study appear to believe that online teaching is a credible alternative to traditional courses, and while the perception of cheating is evident, it is unclear if most students perceive that there is more cheating occurring in online courses. One limitation of the study is that it provides only anecdotal information about the students in the study. Additionally, students in this study were only asked to respond to two statements regarding cheating in online courses versus cheating in traditional courses. As online courses and learning assessment techniques continue to evolve additional research could be conducted to determine if students perceptions of cheating in online courses compared with traditional courses are changing.

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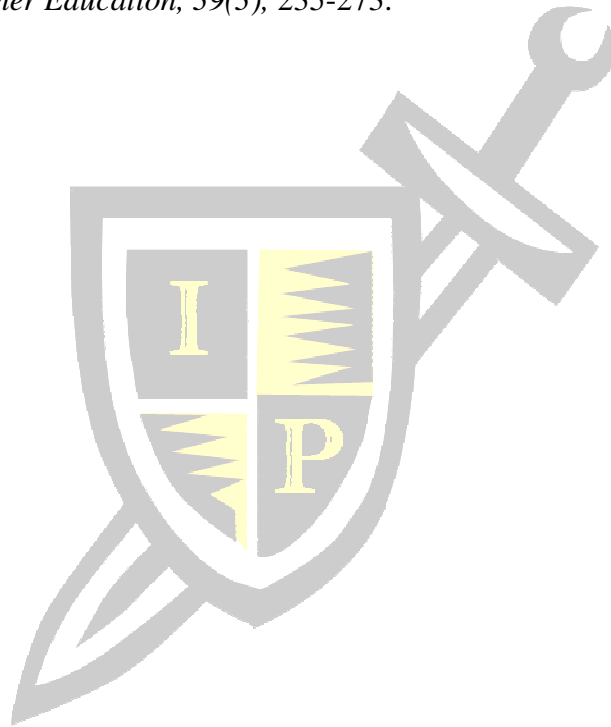
APPENDIX

Table 1. Descriptive Statistics in Percentages for HSU, UTB and All Respondents

Variable	HSU n = 38	UTB n = 60	Total n = 98
Gender			
Male	47	45	46
Female	53	55	54
Classification			
Sophomore	24	20	21
Junior	42	50	47
Senior	34	30	32
Overall GPA			

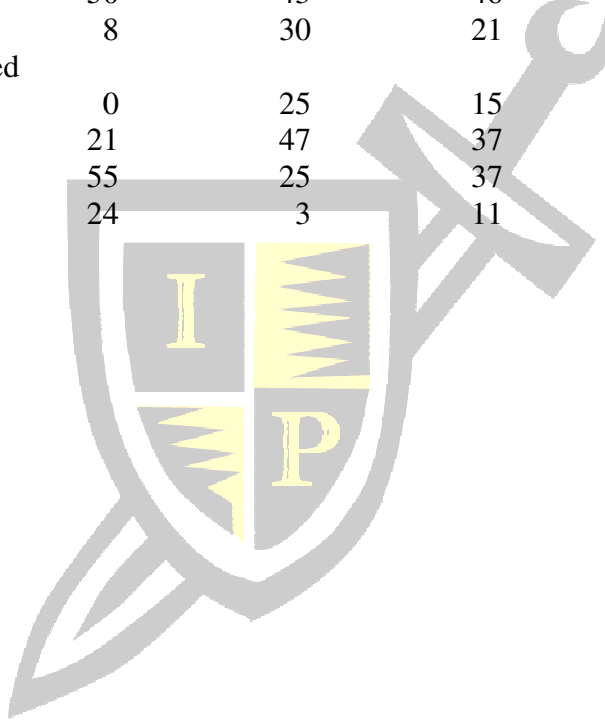|			
Less than 2.0	0	0	0
2.0 - 2.49	8	17	13
2.5 - 2.99	29	27	28
3.0 - 3.49	24	43	36
3.5 - 4.0	39	13	23
Age			
18 - 20	32	22	26
21 - 24	45	43	44
25 - 29	16	17	16
30 - 39	3	15	10
40 or older	5	3	4
Employment			
None	42	27	33
Part-time	50	43	46
Full-time	8	30	21
Online courses completed			
None	0	25	15
1 - 3	21	47	37
4 - 6	55	25	37
7 or more	24	3	11

Table 2. Percentage of Respondents Observing or Having Knowledge of Cheating Occurring.

| Type of Student Cheating Identified	HSU n = 38	UTB n = 60	Total n = 98
Received help with online exam/quiz.	47	45	46
Received help with online homework.	53	57	55
Had another person complete online exam/quiz.	8	18	14
Had another person complete online homework.	13	18	16
Used prohibited materials to complete online exam/quiz.	42	33	37
Used material from web to complete online exam/quiz.	45	38	41
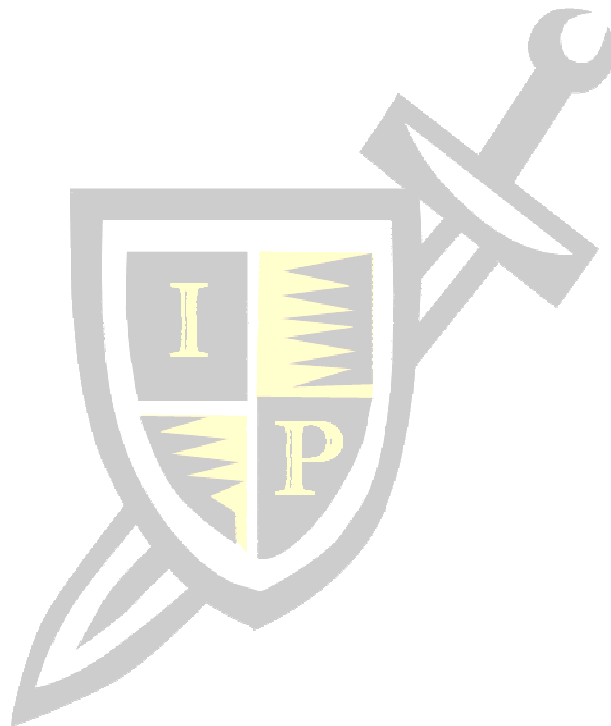
Table 3. Percentage of Respondents Observing or Having Knowledge of Student Receiving Help on an Online Exam or Quiz by Demographic Variable

Variable	HSU		UTB		Total	
	n	%	n	%	n	%
Gender						
Male	18	33	27	63	45	51
Female	20	60	33	30	53	42
Classification						
Sophomore	9	33	12	25	21	29
Junior	16	44	30	53	46	50
Senior	13	62	18	44	31	52
Overall GPA						

|	HSU		UTB		Total	
Less than 2.0	0	0	0	0	0	0
2.0 - 2.49	3	33	10	30	13	31
2.5 - 2.99	11	36	16	50	27	44
3.0 - 3.49	9	56	26	58	35	57
3.5 - 4.0	15	53	8	13	23	39
Age						
18 - 20	12	17	13	46	25	32
21 - 24	17	76	26	58	43	65
25 - 29	6	50	10	40	16	44
30 - 39	1	0	9	22	10	20
40 or older	2	0	2	0	4	0
Employment						
None	16	38	16	38	32	38
Part-time	19	58	26	58	45	58
Full-time	3	33	18	33	21	33
Online courses completed						
None	0	0	15	33	15	33
1 - 3	8	0	28	54	36	42
4 - 6	21	57	15	47	36	53
7 or more	9	67	2	0	11	55
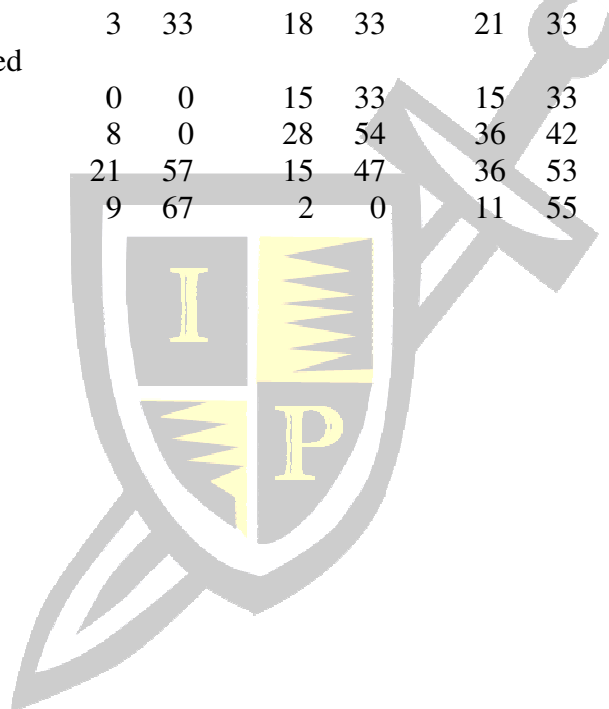
Table 4. Percentage of Respondents Indicating Knowledge of Cheating by Course.

Course	HSU n = 38	UTB n = 60	Total n = 98
Accounting	21	5	11
Economics	37	17	24
Finance	8	5	6
General Business	16	33	27
Information Systems	55	3	23
Management	13	25	20
Marketing	11	12	11

Table 5. Respondents Average Ranking of Extent of Cheating by Course.

Course	HSU n = 38	UTB n = 60	Total n = 98
Accounting	5.9	5.6	5.7
Economics	5.5	4.3	4.8
Finance	4.6	4.6	4.6
General Business	4.8	3.5	4.0
Information Systems	3.8	4.6	4.3
Management	4.2	2.9	3.4
Marketing	4.8	3.5	4.0

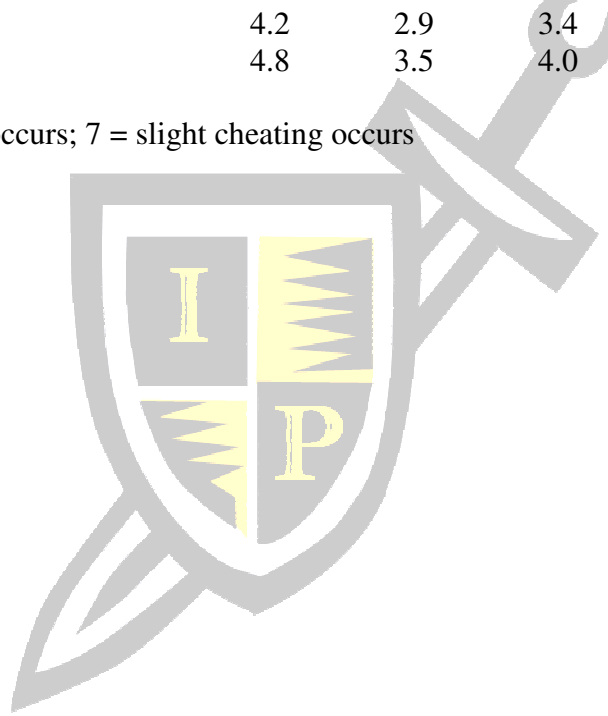1 = extensive cheating occurs; 7 = slight cheating occurs

Table 6. Percentage of Respondents Indicating Opinion Regarding Effectiveness of Different Techniques to Prevent Online Cheating.

Technique and level of effectiveness	HSU n = 36	UTB n = 53	Total n = 89
Timed exam (student has limited time to complete).			
Effective	61	59	60
Not effective	14	11	12

|			
No opinion	25	30	28
Web cam (faculty can watch student completing exam).			
Effective	56	49	52
Not effective	22	28	26
No opinion	22	23	22
Random question generation (every exam different).			
Effective	86	68	75
Not effective	14	15	15
No opinion	0	17	10
Delivery of exam to all students at same date/time.			
Effective	50	55	53
Not effective	33	13	21
No opinion	17	32	26
Must take paper exam in proctored classroom.			
Effective	80	66	72
Not effective	6	13	10
No opinion	14	21	18
Must take online exam in proctored lab.			
Effective	78	64	70
Not effective	3	11	8
No opinion	19	25	22
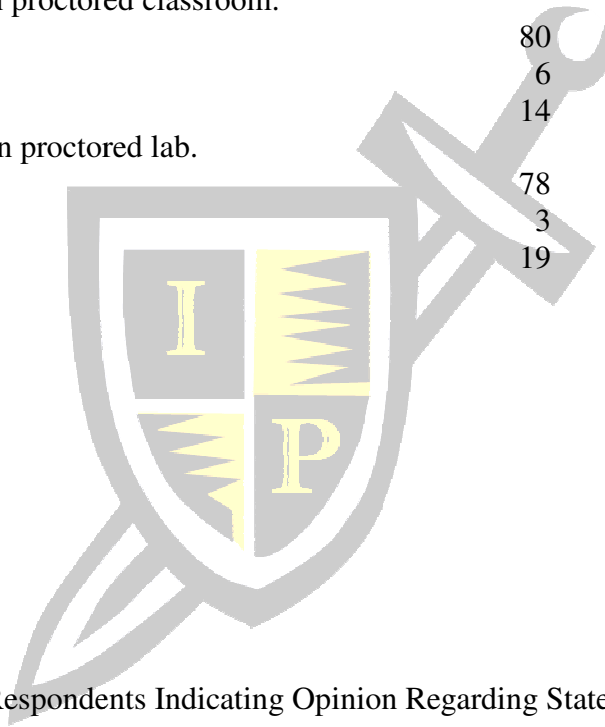
Table 7. Percentage of Respondents Indicating Opinion Regarding Statements Concerning Online Cheating.

Statement	HSU n = 38	UTB n = 55	Total n = 93
There is more cheating in online courses compared with traditional courses.			
Agree	45	45	45
Disagree	18	22	21
No opinion	37	33	34
Online courses are less credible than traditional courses.			
Agree	34	39	38
Disagree	55	34	42

No opinion	11	27	20
Because of cheating, students learn less in online courses.			
Agree	42	44	43
Disagree	34	25	29
No opinion	24	31	28
There is greater opportunity to cheat in online courses.			
Agree	63	45	53
Disagree	13	12	13
No opinion	24	43	34
Most cheating in online courses is planned in advance.			
Agree	37	30	33
Disagree	21	24	23
No opinion	42	46	44
Most professors are unaware of the extent of cheating in their online courses.			
Agree	22	22	22
Disagree	39	36	38
No opinion	39	42	40