



Perceptions Regarding Cheating among CM and AEC Students

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Introduction

From the existing research, it is understood that that academic cheating has become increasingly prevalent at all levels of education, from elementary school through graduate school (McCabe, Treviño, & Butterfield, 2006). A number of studies have explored the prevalence, determinates, and different definitions of cheating behavior (Carpenter et. al. 2006, Atschular, 2001). A historical comparison shows that in 1969, 33% of high school students cheated in their academic work compared to 67.8% in 1999 (Altschuler, 2001). In the universities, there is evidence that the percentage of students who cheat while remained constant over time-82% in 1963 versus 84% in 1993, but the severity of cheating in terms of frequency and types of dishonesty increased significantly. Students who admit to having cheated in an exam increased from 26% in 1963 to 54% in 1993, and the percentages of students who engaged in appropriate collaboration with other students on homework assignments increased from 11% to 49% (Passow et. al., 2006). It can be due to increase of using collaborations in the classes. Several studies have identified variations in rates of cheating among students within different majors. With general agreement among these studies that higher percentages of business and engineering students engage in cheating which are 91% and 82% respectively compared to students in the social and natural sciences which are 73% and 71% respectively (McCabe, 1997, Mattei, 2008). Likewise, past research has identified that variations in rates of cheating among university students from different countries and between genders, with statistically significant differences between students from Japan, the United States, the United Kingdom, and South Africa (Whitely, 1999).

Like other professions, lack of ethics or improper implementation of ethics is becoming widespread problems among all professions including architecture, engineering and construction (AEC). It can be due to widespread availability of materials through web and/or lack of understanding the importance of ethics as a professional responsibility (Banik, 2010). There can be many reasons for student cheats including due to the poor preparation of faculty for the class and/or can be inadequate academic preparation of students. In a recent survey commissioned by Knowledge Ventures, an education integrity is an issue on their campus but unable to pinpoint the extent of the problem, the source of the problem, or whether specific disciplines or groups of students were more at risk. In addition of those who said academic integrity is an issue, 83 percent said that it has become more of an issue over last several years-primarily widespread use of internet as a research tool (Pricewater Cooper study, 2001). Academia is struggling to understand what is happening and why? Which of the usual explanations for academic dishonesty apply? Lack of clarity of plagiarism in our learning environment? Lack of clear position on the instructor's part? Lack of personal connection in the larger class? Although most of the students understand that downloading an essay and submitting it as his own an unethical act but still students do- but why? Lack of enforcement or lack of serious punishment? Whatever reasons are, cheating will not be minimized unless root cause can be found and addressed in a proper way in all intuitions rather than a single institution (Banik, 2010). To answer these questions, a detailed questionnaire was designed and developed based on PACES-1 survey for both construction management and AEC students. For this article, AEC students included students of CM, CE, CET, Architecture and construction engineering.

Different forms of plagiarism in higher education

Before addressing the concerns, a thorough literature survey was conducted to understand what is cheating or what does it really mean? Hannabuss (2001) defined plagiarism as ‘the unauthorized use or close imitation of the ideas and language/expression of someone else’ and then the representation of this work as the plagiarist’s own. In the context of university education, however, plagiarism does not have a single meaning and can range from the citation of a few sentences without attribution through to the copying out of an entire manuscript. Myers (1998) noted how plagiarism in the academic world ‘exists not in law as copyright does, but as *institutional* rules and regulations’. Hence, conventions relating to what does and does not constitute plagiarism are formulated and interpreted differently across institutions. Nevertheless, common themes emerge in most expositions of the construct, usually involving the notions of intent, *deliberate* deception and failure to acknowledge sources (see Larkham & Manns, 2002).

As plagiarism covers a sizeable continuum ranging from ‘sloppy paraphrasing to verbatim transcription with no crediting of the source’ (Larkham & Manns, 2002). ‘Minor plagiarism’ has been stated to comprise activities such as cutting and pasting relatively small amounts of material from web pages without acknowledgement (Davis, 1992), the reproduction of a sentence or two without quotation marks and without a citation (Standler, 2000), paraphrasing without references, and inventing fictitious references (Bjorklund & Wenestam (1999). Major plagiarism, according to Standler (2000) occurs when ‘a significant fraction of the entire work was written by someone else’. Standler (2000) noted however that there was no *legal* distinction between major and minor forms of plagiarism. This was unfortunate, Standler (2000) continued, because differences in the penalties imposed for various levels of plagiarism could be very large, ranging from a mild rebuke to permanent exclusion from an institution. Another explanation for researchers’ interest in the distinction between major and minor plagiarism has been the observation of a substantially greater willingness among students to perpetrate minor as opposed to major plagiarism (see Kuehn *et al.*, 1990; Franklyn-Stokes & Newstead, 1996; McCabe & Trevino, 1996; Newstead *et al.*, 1996; Bjorklund & Wenestam, 1999; Davis, 1992). Possibly, students’ internal rationales for committing serious acts of academic dishonesty differ from those resulting in minor offences (Kuehn *et al.*, 1990). Bjorklund and Wenestam (1999) suggested that minor plagiarism tended to be far more ‘opportunistic in nature than deliberately planned.

The outcome of cheating may be a critical factor in gaining a more complete understanding of how students cheat and why. It may be important to distinguish instances in which cheating has led to increased performance from instances where cheating was not successful and how this may moderate students’ attitudes and behaviors toward others who cheat. Most university professors discourage students from engaging in plagiarism on the grounds that the practice is fraudulent and deceptive, involves the theft of intellectual property, and ‘conceals and misrepresents the originality of the true author’ (Clough, 2003).

This article is based on a study conducted in a university for the Departments of Civil Engineering, Civil Engineering Technology, Architecture and Construction Management at SPSU. The main objective of this is to find the perception of AEC and CM students: is it prevalent like other majors or different? Is there any difference of opinion CM education compared with the AEC education although these disciplines are closely aligned.

Questionnaire Survey

To understand the trend and perceptions of cheating for the AEC students, a detailed questionnaire survey was conducted in a university. The questionnaire was designed based on PACES-1 study (Carpenter et. al. 2006) so that the data can be used for comparison purposes. Altogether two hundred fifty two students responded. Among them, one hundred ninety two students are from Construction Management, twenty one students are from Civil Engineering Technology (CET), sixteen students are from Civil Engineering, five students are from Construction Engineering, twelve students are from architecture and six are others. For this article, only data from construction management (183) students were analyzed compared with the total AEC students' respondents (246) except the others.

Results and Discussions

From Table 1, one hundred eighty three CM students responded regarding attitude toward cheating and one hundred thirty two students responded regarding frequency of cheating either 0 time or one to two times, or equal or more than three times.

Copying from another student during a test or a quiz: One hundred sixty nine construction management students out of one hundred eighty three (92.3%) students believed copying from another students during a test or quiz is cheating compared to two hundred thirty out of two hundred forty six (93.5%) all AEC students. It indicated that majority of the students agreed with the statement but about six percent of students under neither category. It can be due to close alignment of the professions.

Permitting another student to look at your answer during a quiz or exam: When the responses are looked, about 81% CM students felt that permitting another student to look the answer is cheating compared to 75% of AEC students. It might indicate that CM students are probably little bit more lenient about cheating.

Asking another student about questions on an exam you have not yet taken: About 33% of both CM and AEC students felt that asking questions about the exam which was not taken was cheating. 67% thought negative probably because anyway they need to study the materials.

Delaying taking an exam or turning in a paper later with a false excuse: Looks like false excuse for taking late exam or late submission of homework are acceptable among both CM and AEC students. About 77% of CM and 72% AEC students think that both the groups will use false excuses if they were delay in completing the homework or late in tests.

Table 1: Students' attitudes regarding cheating

	Cheating		Unethical but not Cheating		Neither	
	CM-	ALL	CM	All	CM	ALL
	183	246	183	246	183	246
Copying from another student during a test or a quiz	169	230	2	1	12	15
Permitting another student to look at your answer during a quiz or exam	148	185	23	41	12	20
Asking another student about questions on an exam you have not yet taken	60	81	85	112	38	53
Delaying taking an exam or turning in a paper later with a false excuse	43	70	114	146	26	30
Copying from an unapproved reference sheet during a closed-book test or quiz	151	201	15	26	17	19
Claiming to have handed in an assignment to exam when you did not	87	133	76	89	20	24
Taking an exam for another student	121	205	37	27	25	14
Working in groups on assignments when there is no class policy on group work	31	55	42	60	110	131
Adding fake references to term papers to expand bibliography	85	123	75	95	23	28
Copying an old term paper or lab-report from a a previous year	93	142	52	62	38	42
Studying from other students for a test	31	63	41	52	111	131
Copying another students homework when it is not permitted by the instructor	133	197	23	29	27	20
Copying a passage out of a textbook for homework assignments	58	85	57	70	68	91
Submitting or copying homework assignments from a previous term	82	135	51	68	50	43
Witnessing a case of cheating in a class and not reporting it to the instructor	35	59	87	121	61	66
Storing answers to a test/homework after it was graded and telling the	115	139	32	59	36	48
Changing the answers on your test in a calculator or Personal Digital Assistant (PDA)	129	183	21	31	33	32
Paying someone else to take an exam/write a paper for you	140	179	30	44	13	23
Working in groups on Web-based quizzes	73	104	58	77	52	65
Working in groups on take-home exams	63	94	63	82	57	70

Copying from an unapproved reference sheet during a closed-book test or quiz: About 83% of CM students felt that copying from an unapproved reference is cheating compared with 82% of AEC students.

Claiming to have handed in an assignment or exam when you did not: 48% of CM students think that it is cheating compared with 54% of AEC students.

Taking an exam for another student: 66% of CM students think that taking an exam from another student is cheating compared with 83% of AEC students. When all the data were looked, the author did not find any reason for this kind of variations.

Working in groups on assignments when there is no class policy on group work: A smaller percentage of both CM and AEC students think that it is unethical. Sixty percent of CM students think that it is not cheating compared with 53% of AEC students.

Adding fake references to term papers to expand bibliography: About 46% of CM students thought that fake reference is cheating compared with 50% of AEC students.

Copying an old term paper or lab-report from a previous year: 51% of CM students thought that copying from old term paper or lab report was cheating compared with 58% of AEC students.

Studying from other students for a test: Only limited number of students thought that studying from other students work was cheating. It might happen due to the recent encouragement of team works across the curriculum.

Copying another student's homework when it is not permitted by the instructor: About 73% of CM students expressed that copying from another student's HW is cheating compared with 80% of AEC students.

Copying a passage out of a textbook for homework assignments: About 73% of CM student's belief that it was cheating compared with 81% of AEC students. The results indicated that AEC students are more ethical than CM students in these questions.

Witnessing a case of cheating in a class and not reporting it to the instructor: Only 19% of CM student's belief that it is not ethical compared with 24% of AEC students. It could be due to the lack of understanding of their ethical responsibilities.

Changing the answers on your test in a calculator or Personal Digital Assistant (PDA): About 70% of CM students thought it was cheating compared with 74% of AEC students.

Paying someone else to take an exam/write a paper for you: About 77% CM students think that paying someone to write a paper or take the exam is not an acceptable idea compared with 73% of AEC students.

Working in groups on Web-based quizzes: About 40% of CM students thought it is not ethical to work in groups for a online quizzes compared with 42% of AEC students. Online education can be a problem if student take their quizzes in a group format.

Working in groups on take-home exams: There is no clear distinction either it is ethical or not ethical or neither for both CM and AEC students.

Conclusions

From the above Table and discussions, it is evident that both the construction management and AEC students have similar kind of attitudes regarding most of the questions regarding cheating. It can be due to the similar courses they usually take or can be due to their similar academic background nad/or nature of course works. In few cases, there is a difference of opinion between this groups which can be due to inclusion of engineers and architectures in AEC who might have better appreciation regarding professional ethics.

Future Study

The remaining data will be analyzed to find the perceptions based on the grades, working or non-working students, families of higher or low income and the others, and publish the results in the next annual conference. Also the author would like to develop a questionnaire for the students to understand what should be done in classroom to minimize and/or prevent these problems based on the outcome of this study.

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