

An Examination of Students' Knowledge of What Constitutes Plagiarism

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Abstract

This study examined student knowledge and understanding of plagiarism among college of agricultural and life science students. The sample consisted of 542 university students, who completed an online survey (seven questions regarding knowledge and understanding of plagiarism, and four demographic items). Results indicate that there is some confusion about many aspects of plagiarism among university students of all class levels and ages.

Introduction

Institutions of higher learning have long been plagued with the issue of academic integrity. Plagiarism has become systemic as students believe that academic dishonesty is a common occurrence in the classroom and therefore are more likely to participate in cheating behaviors (Engler, et al., 2008). At least 40% of undergraduate students report copying at least a small amount of information without using citations, while 16% report copying verbatim and submitting another's work as their own (McCabe, 2001). In addition, high school students report even higher numbers of plagiarism, with 60% admitting to cheating on examinations and 30% reporting copying information from the internet (Josephson Institute, 2006). Many of these high school students will matriculate to institutions of higher learning, possibly taking their unethical habits with them. Considering these high numbers, it becomes imperative that colleges and universities take steps to address the issue of plagiarism.

Although numerous studies have examined student-reported incidence of plagiarism, research is less clear about why students plagiarize. Many people naturally assume that the high incidence of plagiarism is due to laziness or lack of academic integrity, or perhaps the mistaken belief that everyone is doing it, so it is okay (Bisping et al., 2008; Conway and Pfau, 2008; Hard et al., 2006). Although these reasons may be true in some cases, there may be additional reasons that drive student plagiarism. One potential reason for the high level of student plagiarism may be that students and faculty members alike are unclear about what constitutes plagiarism (Pincus and Schemlkin, 2003; Roig, 2001). Roig (2001) conducted three studies investigating the definitions of plagia-

rism among professors in different academic fields by exploring their paraphrasing practices. The author reported that faculty within the same discipline had varying opinions on the definition of plagiarism. Additionally, many faculty members' paraphrasing techniques were seen as plagiarism by their peers. If faculty members are unclear about what constitutes plagiarism, and if they engage in this behavior themselves, they serve as poor models for their students.

A second potential reason for the high level of plagiarism is that institutions themselves are often vague about what constitutes plagiarism, and individual instructors are often left to determine appropriate punishments for plagiarism (Collins and Amodeo, 2006). This leads to great inconsistency in the way that plagiarism is dealt with at an institution (McCabe, 2001), giving even more inconsistent messages to students about plagiarism.

A third reason why students may plagiarize is that they do not have strong enough writing skills and rely on plagiarism in order to complete their work. Jackson (2006) examined student skills related to plagiarism by focusing on their ability to paraphrase and cite sources. Using an online tutorial program, students were given a pretest and posttest to determine their comprehension of plagiarism, penalties for infractions, and what types of information should be cited. While only 29% of students were able to recognize plagiarism within a rephrased paragraph, the vast majority knew about the penalties for plagiarism. However, when asked to paraphrase another's work, most students simply rearranged words, overused direct quotes, and restated only portions of the original text. This suggests that students know plagiarism is a punishable offense, but lack the skills to cite material correctly. It has been suggested that in order to increase students' understanding of plagiarism, instruction on correct use of paraphrasing (Barry, 2006) and an overall improvement in their writing skills (Collins and Amodeo, 2005) are needed.

Finally, many students may not realize what behaviors constitute plagiarism (Burrus et al., and Schuhmann, 2007). Given the inconsistency in definition among faculty, the vagueness among institutions, and the inconsistent punishment that

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occurs related to plagiarism, it would not be surprising for many students to be unclear about what constitutes plagiarism (Flint et al., 2006). What is surprising is that this topic has received very little attention in the literature. Despite a multitude of studies asking students whether or not they engaged in plagiarism, to date the study of whether students know what plagiarism is has been limited (Yeo, 2007). If students do not understand what constitutes plagiarism, it is not surprising that they engage in this behavior.

In response to a need for a clearer understanding of college student knowledge on the topic of plagiarism, this study examined student perceptions of plagiarism by providing case examples of common situations that arise during writing and inquiring about whether or not they constituted plagiarism. It was expected that certain aspects of plagiarism would be clearer than others, and we hoped to determine which areas were most confusing for students. For example, we expected that most students would understand that turning in another student's paper as their own would constitute plagiarism. However, previous research suggests that issues related to the use of paraphrasing and citation might be more confusing for students. Further, given that the reported rate of plagiarism was so much higher for high school students than for undergraduate students, we expected that as students progressed academically their experience with and understanding of plagiarism would increase.

Methods

Participants

Participants were undergraduate and graduate students in an agricultural and life sciences college at a large state university. There were approximately 4,744 students who were enrolled as degree-seeking students in the college at the time of the survey (spring semester, 2008). The mean age of all students was 23.6, and the gender distribution was 56.1% female and 43.9% male.

Although all students in the college were offered the opportunity to participate in the survey, only a small percentage actually agreed to complete the survey. Of the 543 students who completed the survey, the

mean age was 25, and the reported gender distribution was 65.5% female and 33.4% male. Therefore, the sample in this study was slightly older than the overall population, and the number of female respondents was slightly higher than the average for the college. Approximately 5.4% of students classified themselves as freshmen, 7.5% as sophomores, 22.9% as juniors, 24.6% as seniors, 0.2% as post-baccalaureates, 19.5% as masters level graduate students, 18.9% as doctoral level graduate students, and 1.1% did not identify their class status. This is fairly consistent with the distribution within the college. The ethnic breakdown of the final sample was 70.2% Caucasian, 10.9% Hispanic, 7.3% Asian, 6.1% African-American, 0.7% Native American, and the rest reported being of another ethnicity or did not provide information. Compared to the overall population of students enrolled at the college, the final sample had proportionally slightly more Caucasian participants, and slightly fewer African-American participants than the overall population.

Measure

The survey used was created for this study to identify the beliefs that students have about whether specific scenarios entail plagiarism or not. The survey was comprised of 11 questions: four that asked

Table 1. Survey Questions

<p><i>Question 1:</i> Mary calls home to chat with her parents before finals begin. She tells them about the difficulty she is having with writing a philosophy paper. She just can't seem to get started, and is experiencing writer's block. Mary's mother offers to write an introductory paragraph for her. This helps Mary tremendously, and she uses this exact paragraph in her final paper. Would you consider this to be plagiarism?</p>
<p><i>Question 2:</i> Jennifer wrote a paper on adoption for her psychology class. She worked very hard and got an "A" on the paper. She needs to write a paper for her sociology class, and can submit a paper on adoption to meet the requirement. Would it be plagiarism to turn in her psychology paper for her sociology class?</p>
<p><i>Question 3:</i> Eric is writing a paper for his anthropology class. He finds some good information on the Internet, but he isn't sure where it came from or who the author is. He copies the information and pastes it into his paper. Would you consider this to be plagiarism?</p>
<p><i>Question 4:</i> Maya has a lot going on in her life right now, and has fallen behind in all of her classes. She has a big paper due in her English class, and will fail the class if she does not turn it in. In desperation she turns to her boyfriend. Her boyfriend has taken this class with another professor, and has a paper that she could use for the class. She takes the paper, changes the author's name to hers, and turns it in. Would you consider this to be plagiarism?</p>
<p><i>Question 5:</i> Aaron reads an article on adoption. He finds the following information from Smith, 1987, and wants to use this information in his paper: The number of children who are adopted each year in Fiji is small relative to the number of children who need homes. This is very tragic. In his paper he writes: <i>The number of children who are adopted each year in Fiji is small relative to the number of children who need homes (Smith, 1987).</i> Would you consider this to be plagiarism?</p>
<p><i>Question 6:</i> Bill also reads the Smith, 1987 article on adoption, and wants to use that same information in his paper: The number of children who are adopted every year in Fiji is small relative to the number of children who need homes. This is very tragic. In his paper he writes: <i>Tragically many children need to be adopted in Fiji, and not enough are adopted.</i> Would you consider this to be plagiarism?</p>
<p><i>Question 7:</i> Victoria is also reading the Smith, 1987 article on adoption, and wants to use that same information in her paper: The number of children who are adopted every year in Fiji is small relative to the number of children who need homes. This is very tragic. In her paper she writes: The number of kids who are adopted every year in Fiji is minor relative to the number of kids who need homes (Smith, 1987). This is very sad (Smith, 1987). Would you consider this to be plagiarism?</p>

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demographic information (age, gender, ethnicity and year in school), and seven that asked about their understanding of plagiarism using scenarios (Table 1). Students were asked to determine whether the scenario presented was an example of plagiarism or not, with the option to report “unsure” if they were not certain. Questions ranged from some concepts that should be fairly clear for students, while others that might be more difficult for students to determine. Question 4 queried about whether turning in another person's paper as one's own would be considered plagiarism. Because this is a very basic concept within plagiarism, this question was used to help identify random responders. After examining the response pattern of the 11 students who reported that this behavior was not plagiarism, it was determined that one responder had engaged in a negative response pattern (the response to all questions was “not plagiarism”). This student's responses were removed from final analyses.

Procedures

Data were collected and analyzed using the Survey Monkey online survey system. All 4,744 students enrolled as degree-seeking students at the time of the survey were offered the opportunity to participate in the study. Invitations were sent via e-mail and included a link to the survey. There were 35 students who had previously opted out of Survey Monkey surveys, and three who had non-working e-mails. Of the remaining 4,706 students, 560 responded to the survey (11.9%). Of the 560 who responded to the survey, a total of 543 completed the survey (97%). Prior to starting the survey, students were required to complete an online informed consent form that was approved by the university's Institutional Review Board.

Results and Discussion

Results presented first are based on the overall sample, providing an examination of the results of each question in the survey using chi-square analyses (Table 1). This is followed by the results based on the frequency distributions of class status and gender.

Overall by question

Question 1: This question examined student knowledge of the use of a more subtle form of plagiarism in which a student obtains assistance from others such that their exact words are used without credit in the final product (Plagiarism.org, n.d.). Approximately 68.5% of students agreed that this behavior was plagiarism, while 21.2% reported that this was not plagiarism, and 10.3% reported being unsure. Although most students understood that this behavior was plagiarism, over 30% of the sample either did not identify this behavior as plagiarism, or were not clear on whether or not this was plagiarism.

Question 2: This question examined the issue of recycling prior work, and whether using your own words for another assignment is considered plagiarism. Most students (69.5%) did not believe that this behavior was plagiarism, while a much smaller number (20%) believed that it was plagiarism, or were unsure (10.5%). Whether or not this behavior is considered plagiarism may vary based on academic institution or instructor policy, although various writing styles may mandate the use of some indication that one is quoting oneself (American Psychological Association, 2001). Although some in academia may argue that this behavior is self-plagiarism, others may view this behavior as ethically questionable or even academic dishonesty, but not as plagiarism (Valentine, 2006).

Question 3: This question was included to determine whether students identified taking the words of unidentified authors without credit as plagiarism. The vast majority of students (96.5%) were able to identify this behavior as plagiarism, with less than 1% (0.7%) reporting that this was not plagiarism, and a small number (2.8%) reporting that they were unclear about whether or not this was plagiarism. Students seemed to have a good understanding that this type of behavior was a form of plagiarism.

Question 4: The concept being questioned in this item was whether or not taking another's entire work and claiming it as one's own (one of the most basic forms of plagiarism) is plagiarism. As expected, the vast majority (96.9%) of students were able to correctly identify this behavior as plagiarism, with very few (2%) reported that it was not plagiarism, and even fewer (1.1%) indicated confusion about whether or not this should be considered plagiarism.

Question 5: In this question students were queried about taking another's exact wording without indicating that the material was quoted, but providing a citation. Surprisingly, only 36.9% of students were able to identify this behavior as plagiarism, while 58.7% did not believe that this was plagiarism, and 4.4% were unclear. This response pattern suggests that many students may believe that they can cut and paste material into their papers from various sources, and it is okay to do this as long as a citation is provided.

Question 6: In this question, the goal was to determine student beliefs about taking material from a source and putting it into one's own words, but not providing a citation. Students were split on this issue: 45.2% reported that this behavior was plagiarism, 45% reported that it was not plagiarism, and 9.8% reported being unsure. This scenario is another situation that might be considered a “gray area” by many institutions, with some considering it improper citation and others considering it plagiarism.

Question 7: In this scenario, a citation is provided, but material is taken word for word with

just a few minor word changes. Only 19.2% of students identified this behavior as plagiarism, while 73.6% reported that this was not plagiarism, and 7.2% were unsure. Many faculty members and institutions would consider this behavior to be plagiarism.

Class status and gender

The sample response pattern was examined based on class status. Rather than comparing each class year (due to some small cell sizes), the decision was made to divide the sample into undergraduate and graduate student populations, and results were examined for each question using Chi-square analyses (Table 1). There were a total of 331 undergradu-

ates and 221 graduate students in the sample. Class status only made a significant difference for Questions 5 and 6, which tapped into issues related to the use of citations as well as use of direct quotes without indication, providing only a citation. In both questions, graduate students were more likely to correctly identify plagiarism than undergraduate students (Table 2). Class status did not appear to have an impact on ability to identify plagiarism for questions 1 to 4 and 7.

Response patterns were examined to determine whether there were differences in understanding based on gender. There were a total of 183 males and 359 females in the sample. Some gender differences were noted, although differences did not appear to be

as strong or meaningful as those found for class status differences (Table 3). On Question 6, men were more likely than women to correctly identify plagiarism, while women were more likely to correctly identify plagiarism for Question 3 (Table 3). However, it is notable that the differences in responding for Question 3 are not necessarily meaningful – nearly all students, both male and female, correctly identified the behavior as plagiarism.

Mean age of respondents for each question response was examined, but age did not appear to be a significant factor in response choice. Using Chi-square analyses, the only question that showed a big effect for age was Question 3, such that the average age of those who did not correctly identify this as plagiarism was significantly higher than the mean age of those who correctly identified this as plagiarism or did not know. However, it is notable that only four participants, or less than 1% of the sample, indicated that this was not plagiarism. It is unclear why the age of those who believed this was not plagiarism was older, but it may be related to understanding technology (the question was related to copying information from

Table 2. Responses for Each Question Based on Class Status

	Undergraduates			Graduate students			Chi-square (df=2)
	Plagiarism	Not Plagiarism	Unsure	Plagiarism	Not Plagiarism	Unsure	
Question 1 (n=542)	234	65	32	137	50	24	1.99
Question 2 (n=541)	68	231	32	40	145	25	0.76
Question 3 (n=540)	321	1	7	200	3	8	3.55
Question 4 (n=541)	322	5	3	202	6	3	1.47
Question 5 (n=542)	106	213	12	94	105	12	11.39**
Question 6 (n=542)	140	165	26	105	79	27	9.21**
Question 7 (n=542)	67	243	21	37	156	18	1.35

**p<.01

Table 3. Responses for Each Question Based on Gender

	Male			Female			Chi-square (df=2)
	Plagiarism	Not Plagiarism	Unsure	Plagiarism	Not Plagiarism	Unsure	
Question 1 (n=542)	129	43	11	242	72	45	5.84
Question 2 (n=541)	33	135	14	75	241	43	3.43
Question 3 (n=540)	168	4	10	353	0	5	15.66**
Question 4 (n=541)	176	5	2	348	6	4	0.68
Question 5 (n=542)	62	115	6	138	203	18	2.33
Question 6 (n=542)	94	69	20	151	175	33	5.98*
Question 7 (n=542)	29	141	13	75	258	26	2.05

**p<.01
*p=.05

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the Internet), or perhaps understanding what the question was asking. It may be that older students are less familiar with the Internet.

Summary

Many studies have verified that plagiarism is a widespread problem at the college level. However, to date there has been very limited research to assess what students believe or understand plagiarism to be. This study was conducted in order to assess student knowledge and understanding of plagiarism. The final sample consisted of 542 students, who completed an online survey. There were a total of seven survey questions tapping into knowledge and understanding of plagiarism, and four demographic data items. All students were enrolled in a college of agricultural and life sciences at a large university. The survey respondents included slightly more females and slightly fewer African-American students than the college's total population.

As predicted, students appeared to have a better knowledge or understanding about some issues, and had more difficulty with others. Students were clearly able to identify turning in another's paper as one own, and copying information from the Internet that had no author information as plagiarism. What was more challenging for students was determining whether taking verbatim input from others and recycling one's own work for class credit were plagiarism. It was most difficult for students to determine whether copying another's work but providing a citation, using another's ideas but not providing a citation, or copying another's work and making minor modifications would be considered plagiarism. Graduate students seemed to have a somewhat better understanding of plagiarism than undergraduates, suggesting that some graduate students have gotten this information at some point in their academic careers; however, many graduate students also struggled with these issues. Although some minor gender differences were noted, gender did not appear to be a significant factor in knowledge and understanding of plagiarism. Overall, many students appeared to need clarification on these issues, and would benefit from a tutorial on these topics, and/or clearer policies at the college or university level.

There were several limitations to this study. First, the survey used was developed specifically for use in this study, so normative data is unavailable. Second, the participants came from one college at one university. A broader sample of students across disciplines, across wider geographic range, and across various types of institutions would be desirable. Not only would this lead to regional diversity, but it would take into account policy and teaching differences at various sites. Related to this issue, a more diverse group of students (more males, greater representation of minority groups, different fields of study) would help ensure that the data truly represents student knowledge and understanding of plagiarism.

Another limitation is that this survey was conducted via the Internet. Although the survey was by invitation only, it is not possible to verify that the person taking the survey was the person for whom the survey was intended. Furthermore, it is also possible that completing the survey via the Internet could have an impact on the type of students who completed the survey, such that students who are less Internet-savvy may have been less likely to complete the survey. Finally, this survey used only seven questions, and did not tap into all aspects of plagiarism.

Although plagiarism is a big problem on college campuses, it is important to gauge whether students truly understand whether their behavior entails plagiarism. Certainly there will always be students who make a conscious decision to plagiarize; however, many other students may plagiarize due to ignorance or confusion. Further study of the various aspects of student understanding of plagiarism will enhance our understanding of student knowledge and understanding of plagiarism, and will help guide us in the development of educational programs or interventions to improve student knowledge.

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