A Look at Student Cheating in College Science Classes

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To gain an appreciation of the collusion rate of college students in science classes, over three hundred undergraduates from western Pennsylvania were sampled for their attitudes toward different forms of cheating. The science students were sampled from several different divisions within the university. The survey used in the study was developed by Baird (1980) and holds a reliability coefficient of 89%. The results of the survey indicate that eighty three percent of the respondents had cheated in science sometime in their lives. The vast majority (86%) of the pupils had “shared” homework answers with classmates and most (81%) had told “little lies” to teachers or administrators to avoid getting in trouble. Fewer, but still the majority (75%), of the students admitted to have copied phrases directly out of glossaries, encyclopedias, journals or reference books turning it in as their own work. Most students (80%) had also used crib notes or written science terms on their shoes, wrists or other parts of their body to get by “minor” quizzes at times in their biology course. Over three quarters of the students admitted to cheating on large exams and major projects. When the results of the study are compared to students surveyed with the same instrument a decade ago, it is revealed that the cheating among students is growing. Alarmingly, when the results of the 1993 study were compared to the one in 1980, it was discovered that student collusion had increased in all of the categories in the questionnaire.

KEY WORDS: Collusion in academia; scholastic training.

INTRODUCTION

Student collusion in academia is a growing problem. Recent surveys taken in the nation’s schools and colleges indicate that students no longer consider cheating as dishonest and over 80% of this learning population admits to cheating on tests and assignments sometime during their scholastic training. The number of students admitting to cheating in school is nearly three fold higher than it was in the middle of this century and 20% higher than just a decade ago.

Cheating in school is by no means a recent phenomena. In a survey taken on college campuses near the middle of the century, Drake (1941) found 23% of the students admitted to cheating on tests during their undergraduate schooling. Schab (1969) found similar numbers in his survey of over 1500 secondary school pupils in the 1950s. By 1970 the rate of student collusion had grown to over 50% in both populations (Kelly and Wright, 1974) and a decade ago pupil cheating surpassed the 75% mark (Stevens and Stevens, 1987). Similar findings are reported by Oaks (1975), Borin and Gail (1988), Jendrek (1989), and Collison (1990a).

Not surprising, the percentage of pupils that believe their classmates cheat on tests and exams has also gone up appreciatively in the last few decades. In the 1960s, Fred Schab at the University of Georgia reported that 85% of students in his survey knew of at least one friend that had cheated on an exam in recent weeks. When the same researcher asked the same question of students in 1989, the number had risen to 98.8%. Furthermore, most students questioned in the contemporary survey indicated...
that many forms of cheating, like sharing answers on assignments or failing to report the author of phrases taken from books or journals, was not a "big deal".

When asked why they thought pupils today were cheating more than their contemporaries a few decades ago, the students blamed the academic pressures of the day for causing the situation. In 1989, Jendrek had found students listing "the need to achieve" as the major reason students cheat; while in 1987 Stevens and Stevens had indicated "subject difficulty" was to blame. Collison (1990b) discovered that contemporary students, who probably would not have conspired several decades ago, were cheating now because "it (cheating) has become an accepted, indeed, almost an expected, part of contemporary academic life". In a study of over 1500 students Schab listed "fear of failure" as the most prevalent reason for cheating. This was followed by "parental pressure", "ease of doing it", and "laziness" as the major reasons for student collusion.

Schab also found that most student collusion occurred in mathematics class and suggested that the incidence was due to the testing nature of the discipline. Not all researchers agree with Schab however. Stevens and Stevens (1987) found that students specializing in Business were more likely to cheat than any other major, and Collison (1990a) concluded that Economic majors were the most likely complicitors.

METHOD

To see how undergraduates in science fit into the scheme, a survey was undertaken of biology, chemistry, physics, and geology students at a mid-sized eastern university. The most recent Schab survey (1989) was procured, modified, and given to 320 undergraduates during their science lecture class in the spring semester (Fig. 1). The large classes were conducted in amphitheater-style lecture halls containing about 125 students while the upper level classes generally held 25 to 30 students. Although different science courses were sampled, care was taken to survey classes that were scheduled at conflicting times (i.e., introductory lectures, required upper level courses) to help assure that no student would be polled more than one time.

Upon completing the survey, the questionnaires were collected by the researcher without perusal. Since more men than women were registered for all the science classes, 40 men and 40 women questionnaires were randomly selected from the survey in each science discipline to assure gender equality. Attention was also paid to the graduation year status of the participants to assure equal ratios in that category. This resulted in a population size of 80 students from each science discipline (or a total of 320 students) and even gender representation in the study. The randomly selected surveys were delivered to the university's computer center for grading and the results of the survey were statistically analyzed and evaluated as to gender, graduation year and overall population (Tables I-III).

1. In which college in the university is your major? (a)Natural Science and Math (b)Education (c)Fine Arts. (d)Business. (e)Humanities and Social Science (f)Nursing and Allied Health (g)Human Ecology and Human
2. What is your gender? (a)Male (b)Female
3. What is your year? (a)Freshman (b)Sophomore (c)Junior (d)Senior
4. Have you cheated in any way in school or college in the past? (a)Yes (b)No
5. Have you cheated in a science class sometime during this year? (a)Yes (b)No
6. Have you cheated in a class other than science sometime during this year? (a)Yes (b)No
7. What percentage of students do you believe cheat in science class? (a)None (b)25% (c)50% (d)75% (e)100%
8. What is the major reason a student would cheat in science class? (a)Too lazy to study (b)Subject is too hard to understand (c)Pressure to do well in college and go to graduate school (d)Not enough time to study the material adequately
9. Would you report someone in your science class who you saw cheating? (a)Yes (b)No
10. Would you report a friend that you knew was cheating in science class? (a)Yes (b)No
11. Would you cheat in science class if it were the only way to graduate from college? (a)Yes (b)No
12. Have you ever turned in another student's work as your own in science class? (a)Yes (b)No
13. Have you let another person in a science class copy your work? (a)Yes (b)No
14. Have you ever plagiarized an assignment? (a)Yes (b)No
15. Have you copied answers off another person during a science exam? (a)Yes (b)No
16. Have you copied answers off another person during a science quiz? (a)Yes (b)No
17. Have you ever used "crib notes" to help you through a science test (exam and/or quiz)? (a)Yes (b)No
18. Have you ever obtained a copy of a quiz or exam before it was given? (a)Yes (b)No
19. Have you ever signed your parent's or professor's name on a form or excuse? (a)Yes (b)No
20. Have you ever lied to a professor to get you out of a tough situation? (a)Yes (b)No
21. Do you believe that, on the whole, college science professors are honest? (a)Yes (b)No
22. Do you believe that, on the whole, college science professors are honest? (a)Yes (b)No
23. Do you believe that, on the whole, teachers are honest? (a)Yes (b)No
24. Have you ever taken books from the library and not returned them? (a)Yes (b)No
25. Do you believe that to succeed in the world requires some dishonesty? (a)Yes (b)No

Fig. 1. Questionnaire on cheating in college science courses.