Student Plagiarism and Rational Ignorance in the United States

Researchers:

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Sector(s): Education

Location: United States

Sample: 1,259 papers from 573 unique participants

Target group: Higher education and universities Students

Outcome of interest: Student learning

Intervention type: Information Nudges and reminders

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The existence of plagiarism undermines the fairness and function of academic institutions, but there is little evidence on the prevalence or determinants of this illicit behavior. Over 1,200 papers were collected from students in undergraduate courses at a selective post-secondary institution. Students in half of the participating courses were randomly assigned to complete a web-based anti-plagiarism tutorial before submitting their papers. By subjecting the papers to an electronic anti-plagiarism program, researchers found that the tutorial significantly reduced the likelihood of plagiarism, particularly among students with lower college entrance scores who had the highest rates of plagiarism. A follow-up survey suggests that the intervention reduced plagiarism by increasing student knowledge rather than by increasing the perceived probabilities of detection and punishment.

Policy issue

There is broad concern that the high levels of investment in U.S. higher education are often compromised by student plagiarism, an illicit behavior thought to have grown increasingly common over the last two decades because of both technological change (for example, electronic access to full-text resources and cut-and-paste word processing) and shifting social norms among young adults.

The existence of plagiarism may cause harm, lowering grades of students who do not plagiarize and diminishing the signaling value of educational credentials for all students. In addition, copying another's text may reduce one's subject matter knowledge relative to understanding and expressing material in an original manner. Students who plagiarize may fail to engage in critical reasoning and original expression—skills that are often characterized as the signature achievements of selective postsecondary schooling.

Context of the evaluation

Though there has been little objective measurement of student plagiarism, college student surveys in the U.S. consistently suggest that plagiarism is quite common. Beyond survey evidence, there are also theoretical reasons to expect plagiarism to be common: college instructors tend to put little effort into the detection of plagiarism and are frequently unwilling to engage formal campus disciplinary procedures, instead choosing to resolve cases of academic misconduct informally and lightly.

Some policy commentators have correspondingly recommended combating plagiarism through increased enforcement of its strong statutory prohibitions. However, there is also evidence that college students often do not have a clear understanding of what actually constitutes plagiarism or how it can be avoided. The lack of knowledge may be related to the lack of enforcement —students might choose to avoid taking the time to learn about plagiarism in an example of "rational ignorance," since the probability of detection or punishment is so low.



A student trying to cheat on a test in the US.

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Details of the intervention

Researchers used a randomized controlled trial to assess the effects of a web-based tutorial in reducing plagiarism at a highly selective U.S. post-secondary institution. In the fall 2007 semester, 28 undergraduate social sciences and humanities classes were randomly assigned to either the treatment or control group. Students in courses in the comparison group simply had to submit their papers electronically through a 'Blackboard' course website. In courses assigned to the treatment group, students also had to submit their writing assignments through Blackboard. However, before they were allowed to do so, they had to complete a Blackboard-based tutorial and quiz on plagiarism.

The tutorial required students to click through 18 sequential screens with text that defined plagiarism, provided examples of plagiarism, and informed students of strategies for avoiding plagiarism (such as not procrastinating and careful note-taking). At the end of the sequence, students were required to complete a nine-question quiz consisting of several detailed and example-driven questions on plagiarism. Each response triggered detailed feedback on why that answer was either correct or incorrect before proceeding to the next question.

Professors in the treatment courses encouraged students to complete the tutorial during the third week of the semester, after students were no longer able to drop the course without penalty. Professors were given the names of students who did not promptly complete the tutorial, and were encouraged to provide targeted follow up reminders. As a result, over 97 percent of students in the treatment group completed the whole tutorial, and an additional 1.5 percent completed it partially.

Researchers subjected all papers to the web service Turnitin.com to detect plagiarism. For each submitted paper, Turnitin.com generated a similarity score that identified the percentage of submitted text that matched their database of journal articles, newspapers, magazine articles, books, and web pages. In order to address any measurement error in the similarity scores generated by Turnitin.com, researchers then had multiple reviewers look over the papers to determine how many of the papers flagged as "plagiarized" were false positives (generally from instances where the web service erroneously picked out quoted text or poorly formatted bibliographies as plagiarized).

Results and policy lessons

Researchers found that the anti-plagiarism tutorial reduced the incidence of plagiarism by roughly two thirds—about 1.3 percent of papers in the treatment group had evidence of plagiarism, compared to 3.3 percent in the control group. This drop was concentrated among students with lower SAT scores. In general, researchers found that students with low SAT scores were much more likely than other students to plagiarize, with 14 percent of the students in the bottom quintile of SAT scores engaging in plagiarism. The tutorial reduced plagiarism rates for students with SAT scores below 1200 by roughly 10 percentage points. Given that the average U.S. SAT score at the time of the study was 1,017 , this intervention could have a large effect on the average college student.

A month after the semester ended, and after all the papers had already been collected, researchers surveyed students in the treatment and control groups. Among the survey questions, researchers asked three true or false questions assessing the student's knowledge of plagiarism. Almost 100 percent of the students in the treatment group answered the questions correctly, while only 87 percent of the control group did. Other survey questions did not indicate that students felt that they were more likely to be caught for plagiarism in the treatment group. These results suggest that the intervention may have worked through education rather than through deterrence.

Given the results and post-survey, the researchers believe that education about plagiarism could be an effective means of curtailing its practice, and that the study design in particular demonstrates how education on plagiarism could be delivered in a low-effort, cost-effective manner.

Dee, Thomas S., and Brian A. Jacob. 2012. "Rational Ignorance in Education: A Field Experiment in Student Plagiarism." Journal of Human Resources 47(2): 397-434.