



Intelligent programs
for research and teaching



[Go to SAGrader main page](#)

SAGrader™ Helps Disadvantaged Students Overcome Initial Deficits

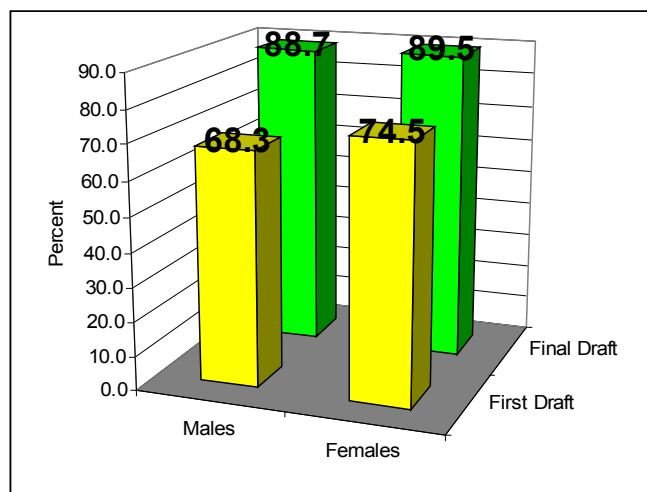
Edward Brent, Theodore Carnahan, and Jeff McCully
Copyright © [Idea Works, Inc.](#), 2006

An analysis of essays submitted in introductory sociology assignments finds that SAGrader levels the playing field, giving disadvantaged students the opportunity to overcome initial deficits.

In this analysis of students enrolled in an introductory sociology course at the University of Missouri, students were permitted to submit their essays as many times as they liked. Many students used this opportunity to revise their essays and improve their grades. Performance scores for each student on their first and last submissions for each assignment were averaged across all assignments in the course. Then the average scores for first submissions were compared for various subgroups of students, and the average scores for last submissions were compared for various subgroups of students.

Gender Differences

For initial submissions of essays female students scored significantly higher ($F=5.02$, $df=1,69$, $p=.028$) than males, with an average initial score for female students of 74.5% compared to 68.3% for male students. By the last submission, both males and females have shown significant



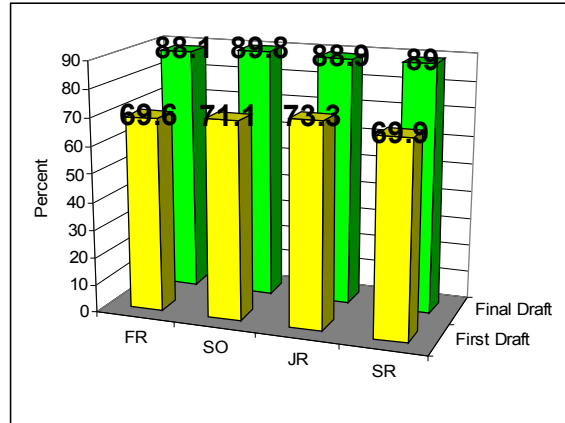
improvements in their scores (to 88.7% for males and 89.5% for females) and the gap between males and females has closed to less than one percentage point and the difference is no longer significant ($F=.181$, $df=1,69$, $p=.672$).

This suggests that SAGrader provides a way for students to level the playing field, permitting students with initial disadvantages to overcome those through revisions. Where initial differences may be influenced heavily by the quality of early education experiences and differential access to resources, by the time students submit their last revisions, the biggest factor affecting their performance is their willingness to work hard to improve their grade.

Both male and female students improve their grades considerably in relatively few revisions. However, male students improve somewhat more than females, closing the initial gap to the point where the differences in scores by gender are not significant. Male students have only slightly higher average numbers of submissions per assignment when compared to female students, (3.36 for males compared to 3.23 for females) and that difference is not significant.

Level in School

Initial differences in performance for students in different years in school are not significant. However, they do vary by over 3 percentage points. By the time of the last submissions, they vary by less than 2 percentage points. So once again, initial differences tend to diminish with revisions.



	First Submission for Revisers	Last Submission for Revisers	Count
FR	69.6	88.1	22
SO	71.1	89.8	34
JR	73.3	88.9	15
SR	69.9	89.0	7

Discussion

These findings are preliminary, based on several thousand essays submitted by students in a single introductory sociology class. However, they offer promising hope that SAGrader, by permitting students to revise

their work and learn, provides an opportunity for students with initial deficits to overcome those and perform as well as any other student. In future studies we will examine this issue for members of minorities, first-generation college students, students for whom English is a foreign language, and other disadvantaged students who may benefit from SAGrader.

[Go to SAGrader main page](#)