Study: Showing Students Standout Work Can Backfire

Struggling learners put off by exemplars

By Sarah D. Sparks

Sharing examples of stellar student work is a time-honored tradition for helping students understand how to improve, but new research suggests that, in some cases, it can turn off struggling students.

In a series of studies published online this month in the journal Psychological Science, researchers Todd Rogers of Harvard University and Avi Feller of the University of California, Berkeley, found struggling young adult and adult students in an online course didn't get inspired by their classmates' excellent work—quite the opposite.

"One of the surprising, negative consequences of the approach is when students are exposed to truly exceptional work, they use it as a reference point and realize they are not capable of such exceptional quality," said Rogers, an associate professor of public policy at Harvard's Kennedy School of Government. "It can lead to decreased motivation and eventually quitting if you believe the exceptional work is actually typical."

Massively open online courses, or MOOCs, draw thousands of students, but often have very high dropout rates. The researchers examined student achievement and persistence in one class of 150,000 students of whom fewer than 4,000 completed the class—a 2 percent completion rate that is not uncommon in this type of course.

The class randomly assigned students to read and review peers' essays while working on an essay of their own. They and the teacher separately rated each essay on a scale of 0-9, with 9 being the best. Of the more than 5,700 students who participated in the assignment, about two-thirds completed the full class, and 68 percent "passed" with a final grade of 85 or higher to earn a certificate of credit for the course.

Falling Short of Peers

However, students who had reviewed the best essays had significantly lower final grades and were less likely to finish the course. Of the students who reviewed essays that were a full standard
deviation above the average essay in quality, only 64 percent passed the class. Of students who read the 100 best-rated essays in the class, only 45 percent passed.

To put that into context, students who actually wrote top-rated essays were 18 percentage points more likely to pass the class than students who wrote only average essays, but students who read top-rated essays were 23 percentage points less likely to pass than the class average.

By contrast, people who read essays of lower quality had no difference in their final grade compared with peers who had not read them.

That can create a dilemma for teachers trying to give students clear expectations of what they must produce.

"I get the irony: When we teach and we're doing something new, we want to show them what good work looks like," Rogers said, "but I think it's just when it's new—when we don't have a very strong sense of what typical ability looks like—that students are most vulnerable to this kind of discouragement."

Beverly DeVore-Wedding, a 28-year veteran high school and community college science teacher and a National Science Teachers Association high school division director, said she has seen that sort of social comparison in her own classes, both with adolescents and adults.

"When I only show them the top-notch, I have students who get frustrated and say, 'I can't do this,'" she said.

Other studies have found similar results when people—and particularly adolescents—feel lacking in comparison to their peers. For example, University of Missouri researchers found students using Facebook reported higher rates of feeling envious and depressive symptoms after viewing posts about friends' vacations, new homes, or happy relationships.

**Putting Things in Perspective**

Teachers can't and shouldn't shield students from work that's significantly better than their own, Rogers said, but they can help to counter feelings of despair.

"In life, the marketplace for exceptional performance is robust. We are disproportionately likely to be exposed to exceptional work of others, rather than mediocre work of others," Rogers said. "One way to fix it, we think, is to just label it as 'exceptional,' rather than allowing people to think that the exceptional is typical."

For science-project poster sessions, for example, DeVore-Wedding said she only uses individual examples from students' work that are at least 6 years old, so the students themselves have long left the school. Rogers noted that students are less likely to take an exemplary essay as typical if it is obvious the teacher has held onto it for years.

She also pulls examples from many different student projects rather than comparing them holistically in front of the class. One student may have a beautifully formatted poster with incomplete citations; another may have a thorough literature review but faulty analysis.

The online-classroom environment also could exacerbate students' discouragement, DeVore-Wedding said, because students have less opportunity to build working relationships with their classmates. "They do not know their peers, and they may not understand the value of peer evaluation to improve their own work [and] skills," she said.
Other studies have shown top performers often feel alienated in K-12 schools, and Rogers wonders if social comparisons could lead to bullying of gifted students.

"One of the things we're really interested in is, what does it do to you socially? I think in a classroom where you can't quit, it probably leads you to derogate exceptional performers," Rogers said.

Developing learning communities among students may help them think about learning from peer work rather than comparing themselves socially, DeVore-Wedding said.

"I treat the reviewing of others' work as a learning experience," she said, "so they are not evaluating the quality of the work, but 'what did I learn from my peers' projects?'"

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