



An Experiment Shows that Certificates Encourage Students to Attend After-School Tutoring Sessions

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Many parts of the federal education law called No Child Left Behind were highly visible, but one of the less known provisions, the Supplemental Educational Services provision set aside funds to allow low-income students in poorly performing schools to get free access to after-school tutoring. Research has found that the benefits of this provision vary, depending on location and the types of providers offering tutoring services. But regardless of benefits, low attendance has been a consistent problem. Using a randomized experiment, my colleagues and I set out to test whether students eligible for tutoring would attend sessions more regularly if they got either certificates of praise or money for doing so.

How the Study Worked

We randomly selected 300 5th to 8th grade students in a large southern urban school district who were eligible to receive supplemental educational services. Prior studies found tutoring services in this district to be relatively high quality. To see whether use of those services could be improved, we randomly assigned students in our study to one of three subgroups:

- Students in one group got a reward of \$100 (distributed via an online platform) for consistent attendance at tutoring sessions.
- Students in a second group got certificates of recognition for consistent attendance, signed by the school's district superintendent and mailed to their homes.
- Students in the third group were a control group, whose members received no experimental incentives.

Praise Matters More Than Money

Our results were striking. The students who were offered up to \$100 for regular attendance were no more likely to attend tutoring sessions than if students were offered nothing at all. However, when we offered students and their parents a certificate, attendance went dramatically up. Students in the certificate group attended about 40 percent more of their tutoring hours than students in the control group who got no rewards or praise.

Our results parallel those from prior studies, where paying students and teachers for higher test scores proved ineffective. However, those earlier studies were not a definitive test of monetary rewards, because teachers and students might have lacked the knowledge or support they needed to improve test scores. In other words, you can offer a man more money to catch more fish, but he will not be able to claim the money if you don't help him improve his fishing skills.

In our study of attendance at tutoring sessions, the situation was different. We offered money to students who attended regularly – and when they got to their tutoring sessions, there was someone to help them improve their skills in reading and math. The ambiguity that plagued interpretation of the experiments where teachers and students were offered money to improve test scores does not hold for our experiment.

Although the benefits of the monetary incentives were negligible, we found that the students in the certificate group attended 42.5 percent more of their allocated tutoring hours than students in the control group. This is a very strong effect – and the impact of offering the certificate for good attendance was especially strong for female students, who attended significantly more of their allocated tutoring hours than male students who were also offered certificates.

Policy Implications

Policymakers and practitioners seeking to increase attendance of tutoring sessions and other underutilized student supports should note how cost effective it is to offer certificates. In our study, providing the certificates cost about \$9 for each student who completed all of the tutoring sessions. The cost for monetary rewards was obviously much more – more than \$100 for each student who completed all the allocated hours. In short, the certificate intervention is more than 6,000 times more cost-effective than the monetary incentive. Our estimates are rough and paint an extreme picture. But they illustrate an important conclusion: non-monetary incentives can both work better than doling out money and can be a lot cheaper way to nudge students toward educational success.

Even so, the results of our experiment do not offer a comprehensive answer to an ongoing puzzle: Would it work to offer certificates of recognition to try to motivate many kinds of desirable student behavior? Using certificates might not work as well if they were more widely used, because economic theory suggests that the value ascribed to a certificate of recognition would likely have diminishing marginal utility – that is, students would care less about earning these certificates if they were awarded all the time to reward all kinds of things teachers and parents want students to do.

Even in our own study, it might be that a second certificate of recognition would not have the same impact as the first. Furthermore, earning a certificate of recognition might not matter as much to a student who consistently brings home excellent report cards as it would to a student who earns lower grades. In real world applications, educators using non-monetary incentives may need to take such possible diminishing returns into account.

Even so, our results should inspire measured enthusiasm. Many other experiments with student incentives have registered disappointing results, but we found something that works well at very low cost. Educators should try incentives of this sort to boost participation in underutilized programs. And our study should also inspire researchers to do more nuanced and imaginative research on student incentives.

Read more in Matthew Springer, “Monetary vs. Non-Monetary Student Incentives for Tutoring Services: A Randomized Controlled Trial,” (with Brooks Rosenquist and Walker Swain). *Journal of Research on Educational Effectiveness* 8 (2015):453-474.