

# Study: Small Classes Give Extra Boost to Low-Achieving Students

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(PhysOrg.com) -- Small classes in early grades improve test scores in later grades for students of all achievement levels, but low achievers get an extra boost. That's the finding of a study on the long-term effects of class size in the November issue of the *American Journal of Education*.

The study suggests that reducing class size in early grades provides a dual benefit: It raises achievement for all students through middle school, while also closing the persistently large gap between high- and low-achievers, say authors Spyros Konstantopoulos from Michigan State University and Vicki Chung from Northwestern University.

According to the study, small classes—13 to 17 students—are most effective when they are consistent from kindergarten through third grade. Students in consistently small early classes had substantially higher test scores in grades four through eight than students who had been in larger classes. Students at all achievement levels benefited, but low achievers show stronger benefits by grades seven and eight.

Exposure to a small class in third grade alone also had some long-term benefits, the study found. But those benefits were relatively small, and about the same for high and low achievers.

“One year of exposure in small classes is not enough [to influence the achievement gap],” Konstantopoulos said. “It appears that class size reduction is most effective for all students and low achievers in particular, if it is implemented early in elementary grades and for

multiple years.”

The study used data from Project STAR, a major [longitudinal study](#) of class size and its effects on more than 11,000 students. Previous research using the Project STAR data have found that small classes in early grades have positive long-term effects on average [student achievement](#). But whether small classes could help close the achievement gap in later grades had remained an open question.

Since Project STAR provides no qualitative data on teacher practices, it’s hard to say why small classes benefit low achievers.

“One hypothesis is that teachers in small classes are more likely to identify low achievers and hence are more likely to provide instruction designed to benefit these students,” Konstantopoulos said. “Alternatively, in small classes there is a higher likelihood for low achievers to interact with teachers and be more engaged in learning.”

Regardless of the mechanisms, the study suggests that initiatives to shrink class size, if widely implemented, could play a role in reducing the achievement gap. It also reinforces the findings of previous studies that show strong and lasting benefits of small classes.

*“It is remarkable that an intervention that is easily defined and implemented can have important lasting benefits at least to the end of middle school for all students,” Konstantopoulos and Chung write.*

*More information:* Spyros Konstantopoulos and Vicki Chung, “What Are the Long-Term Effects of Small Classes on the [Achievement Gap](#)? Evidence from the Lasting Benefits Study.” The [American Journal of Education](#) 116:1 (November 2009).

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