

# Poor student outcomes linked to aging schools

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When assessing education, much attention goes to the administrative control of the school district, teaching and testing. But little goes to the growing evidence that where learning occurs matters. American school buildings are aging and in disrepair, with the worst conditions found in those that serve low-income children.

Low building quality negatively affects [student achievement](#), and this effect is exacerbated when students change schools often; both conditions are more often found in low-income districts, according to a new study by Cornell researchers Gary Evans, professor of design and environmental analysis; Min Jun Yoo, M.S. '08; and John Sipple, associate professor of education; and published in the *Journal of Environmental Psychology* (Vol. 30).

The researchers studied the relation between school building quality and student stability, socio-economic background and scores on standardized achievement tests in 511 public elementary schools in the New York City school system. Prior studies had confirmed a link between building quality and student performance independent of socio-economic status, but most did not address the question of why. One study provided a clue. It indicated that one reason for this relationship was because of absenteeism. Independent of socio-economic status, students in poorer quality buildings were absent more often. Students do not learn as much if they spend less time in school.

Thus, Evans and his colleagues investigated how student mobility might

also contribute to the linkage between school building quality and student achievement.

"We found that students attending schools with lower building quality and those attending schools with high student mobility had lower test scores," says environmental psychologist Evans.

Furthermore, they found that when these two [risk factors](#) were combined, it was particularly damaging to [academic achievement](#). These negative effects on test scores occurred independently of socio-economic and [racial composition](#) of the school. Further research at the individual student and teacher levels may shed light on the mechanisms for these synergistic effects.

While it is widely understood that teacher experience, curriculum and school social climate influence children's learning, this study underscores the importance of the physical environment as well. It is the first study to demonstrate the interaction between the condition of school facilities and student mobility.

"Our findings highlight a serious issue in American education -- inequality," says Evans. "Although we controlled for socio-economic status and race in our analysis, in reality low-income children are both more likely to change schools and more likely to attend schools with lower quality buildings. We conclude that the school environment contributes to the income-achievement gap and, therefore, warrants greater attention."

Provided by Cornell University

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