

RELATING BUILDING AND CLASSROOM CONDITIONS TO
STUDENT ACHIEVEMENT IN VIRGINIA'S ELEMENTARY SCHOOLS

by

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(ABSTRACT)

The relationships between student achievement and a number of variables relating to building and classroom conditions in Virginia elementary schools were examined. A systematic random sample of 300 schools was selected from all elementary schools in Virginia with grades three and five. Data on building condition, classroom condition, and demographics were collected with "An Assessment of Building and Classroom Conditions in Elementary Schools in Virginia." Building principals completed the survey. The scaled scores from the Spring 1998 Standards of Learning Assessments for third-grade English, fifth-grade English, third-grade mathematics, and fifth-grade mathematics were used as measures of student achievement. The percentage passing the fifth-grade technology assessment was used as a measure of achievement in technology as scaled scores were not available.

Findings

A large portion of Virginia elementary schools are more than thirty years old and have a number of structural and classroom defects. While principals gave high composite ratings to their schools, their responses to individual questions indicate problems with roof leaks and climate control.

The percentage of students participating in the free and reduced-price lunch program accounted for the largest percentages of variance in English, math, and technology achievement. However, this variable had greater influence on achievement in English and technology than in mathematics. Air conditioning was a significant variable in third-grade English, fifth-grade mathematics, and fifth-grade technology achievement. Other variables found significant in one or more of the analyses were ceiling type, frequency of floor sweeping, frequency of floor mopping, connection to a wide-area network, room structure, overall building maintenance, and flooring type.

DEDICATION

This work is dedicated to my family for their support over the last four years. My brother's financial assistance made graduate study possible. My mother gave me continuing encouragement and support when I sorely needed it. Finally, although my father did not live to see me reach this goal, my memory of his pride in my accomplishments was a source of inspiration for me.

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Working on this degree while continuing to work full-time has presented unique challenges. My school staff has been very supportive of my work. Of special note is the support and assistance provided by my secretary, Ruth Trower. I share this accomplishment with her.

As a commuting graduate student, I spent many hours on the road traveling to and from class. Terry Moore was a great partner during these road trips.

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