

ASHRAE Technical FAQ

ID 98

Question Can HVAC systems and indoor environmental quality have an effect on student performance in schools?

A number of other books and technical papers available at www.ashrae.org/bookstore address the topic. You may benefit from performing a keyword search of ASHRAE technical papers and proceedings from ASHRAE Meetings and Conferences, magazine articles, handbook chapters, standards, and other literature published by or available through ASHRAE. The following bookstore publications are related to indoor environmental quality and student performance in schools:

Answer

- [The Effects of Ventilation on Indoor Air Quality in Schools](#)
- [Nearly Zero Energy Schools: Their Systems, Energy Use and Perceived Indoor Air Quality](#)
- [Technical and Economic Assessment of a Danish Public School Energy Renovation using Dynamic Energy Performance Model](#)
- [IEQ Applications: Changes in IAQ Caused by Corona Discharge Air Cleaner](#)
- [Do the Students in High Performance Incentive \(HPI\) Schools Demonstrate More Academic Improvement than their Peers in Non-HPI Schools?](#)
- [Optimizing Classroom Ventilation Rates: Impact of Substandard Ventilation on Student Academic Achievement](#)
- [Low Carbon vs. Victorian School Design: IAQ, Energy and Health Responses](#)
- [Indoor Environmental Quality in Schools and Academic Performance of Students: Studies from 2004 to Present](#)
- [Effects of Noise from Building Mechanical Systems on Elementary School Student Achievement](#)
- [High Performance School Characteristics](#)
- [High Performance Schools: High Marks for Energy Efficiency, Humidity Control, Indoor Air Quality & First Cost](#)
- [Impact of Ventilation Modifications on Indoor Air Quality Characteristics at an Elementary School](#)
- [Improving Indoor Air Quality Improves the Performance of Office Work and School Work and Provides Economic Benefits](#)
- [A Methodology for Analyzing the Association Between Student Performance and Indoor Air Quality](#)
- [Indoor Environmental Quality in Schools and Academic Performance of Students: Studies from 2004 to Present](#)
- [The Effects of Moderately Raised Classroom Temperatures and Classroom Ventilation Rate on the Performance of Schoolwork by](#)

Children

- [The Effects of Electrostatic Particle Filtration and Supply-Air Filter Condition in Classrooms on the Performance of Schoolwork by Children](#)
- [The Effects of Outdoor Air Supply Rate and Supply Air Filter Condition in Classrooms on the Performance of Schoolwork by Children](#)
- [Research Report: Effects of HVAC on Student Performance](#)
- [Acoustical Case Studies of HVAC Systems in Schools](#)
- [RP-1257 -- Indoor Environmental Effects On The Performance Of School Work By Children](#)

The May [ASHRAE Journal](#) from the last few years has featured articles on school HVAC.

ASHRAE technical papers and all ASHRAE publications may be purchased and downloaded on-line at our website, www.ashrae.org or by calling 1-800-527-4723 in the USA and Canada or 1-404-636-8400 worldwide.

[The 2015 ASHRAE Handbook - HVAC Applications, Chapter A07](#)

ASHRAE Pubs

[ASHRAE Standard 62.1-2016](#) plus [ASHRAE BOD approved addenda](#).

[ASHRAE Standard 55-2017](#) plus [ASHRAE BOD approved addenda](#).

[1257-RP Final Report](#)

Topic References

school, student, children, performance, indoor air quality (IAQ), indoor environmental quality (IEQ)

	Cognizant ASHRAE Committees	Refer to Organization
1	TC 2.1	
2	TC 4.3	
3	TC 9.7	
4	SSPC 62.1	
5	SSPC 55	