

Indoor air quality in selected samples of primary schools in Kuala Terengganu, Malaysia.

ABSTRACT

Studies have found out that indoor air quality affects human especially children and the elderly more compared to ambient atmospheric air. This study aims to investigate indoor air pollutants concentration in selected vernacular schools with different surrounding human activities in Kuala Terengganu, the administrative and commercial center of Terengganu state. Failure to identify and establish indoor air pollution status can increase the chance of long-term and short-term health problems for these young students and staff; reduction in productivity of teachers; and degrade the youngsters learning environment and comfort. Indoor air quality (IAQ) parameters in three primary schools were conducted during the monsoon season of November 2008 for the purposes of assessing ventilation rates, levels of particulate matter (PM10) and air quality differences between schools. In each classroom, carbon monoxide (CO), CO₂, air velocity, relative humidity and temperature were performed during school hours, and a complete walkthrough survey was completed. Results show a statistically significant difference for the five IAQ parameters between the three schools at the 95.0% confidence level. We conclude our findings by confirming the important influence of surrounding human activities on indoor concentrations of pollutants in selected vernacular schools in Kuala Terengganu.

Keyword: Indoor air quality; Particulate matter; Carbon monoxide; Carbon dioxide; Terengganu