

7SXXX – Assignment 1 – Effect location on IAQ primary school Beijing

Keywords: *IAQ, Air pollution, Smog, 'Frisse Scholen', particles*

General information

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Type of examination:	Project (interim and final report)
Locations:	Tsinghua University Primary School, 30 Shuang Qing Lu, Haidian Great Wall of China, Huairou 101405 Forbidden city, 4 Jing Shan Qian Jie, Dongcheng, Beijing
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Assignment Description

The capital of China, Beijing, is known as one of the largest and most densely populated cities in the world. Though, the city is also known for the inhabitants wearing face masks because of the city's unbearable smog. Research so far has focussed on the characterization of the polluted air, on the future prediction of the air quality [1] and on the relationship between air pollution and daily mortality [2]. However, less research has been done on the effect of the polluted air at the indoor air quality (IAQ) of buildings in Beijing. For primary schools, from the educational standpoint, the IAQ in school buildings may affect the health of the children and indirectly affect learning performance [3]. In this assignment, a case study on the IAQ of a primary school in Beijing will be performed. The indoor air quality in a typical Chinese class room will be compared with Chinese and Dutch standards (*'Frisse Scholen'*) and the outdoor air quality will be measured on several locations in and around Beijing to investigate the effect of the location on the indoor air quality of the primary school.

Planning

Preparation	27/02/2015 – 01/05/2015
Hand in interim report	01/05/2015
Measurements	14/05/2015 – 25/05/2015
Analysing results and writing report	26/05/2015 – 12/06/2015
Hand in final report	12/06/2015

References

- [1] Zhang, Y.; Shao, M.; Hu, M.; Tang, D., *air quality in Beijing and its transition from coal burning caused problems to traffic exhaust related pollution*, Air and Waste Management Association; Pittsburgh, USA, 1997
- [2] Xiping Xu M.D., Ph.D., Jun Gao, Jun Gao & Yude Chen, *Air Pollution and Daily Mortality in Residential Areas of Beijing, China*, Archives of Environmental Health: An International Journal, Volume 49, Issue 4, pages 216-222, 1994
- [3] J. M. Daisey, W. J. Angell and M. G. Apte, *Indoor air quality, ventilation and health symptoms in schools: an analysis of existing information*, Indoor Air Volume 13, Issue 1, pages 53–64, 2003

