

# Indoor air, human cognition and health

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Propositions accompanying the PhD-thesis

# Indoor air, human cognition, and health

Stefan Flagner, March 2025

1. Indoor air quality substantially impacts learning outcomes in primary education.  
- Chapter 2 of this thesis
2. The beliefs of building users about the impact of the indoor environment may not accurately reflect its actual effect.  
- Chapter 3 of this thesis
3. Carbon dioxide, while a useful proxy for indoor air quality, is not necessarily a pollutant itself.  
- Chapter 4 of this thesis
4. There is an urgent need for research on the economic implications of improving indoor environmental quality.  
- Chapter 5 of this thesis
5. A substantial portion of the time humans spend indoors is during sleep, which highlights the need for more research on the impact of bedroom air quality on sleep quality.
6. The question about the impact of carbon dioxide on cognitive performance is still unresolved, and will continue to be until we fully acknowledge the complexity of human cognition.
7. Substantial advancements in indoor environmental quality research can be achieved through interdisciplinary collaboration, as disciplines such as engineering, health sciences, and economics approach similar questions from different perspectives.
8. Understanding the impact of indoor air quality is crucial for school boards in providing an optimal learning environment, for employers and occupational health managers in ensuring a healthy and performance-enhancing workplace, and for real estate stakeholders in designing sustainable buildings.
9. "What we know is a drop, what we don't know is an ocean."  
- Isaac Newton
10. "Discipline equals freedom."  
- Jocko Willink
11. "Absorb what is useful, discard what is not, add what is uniquely your own."  
- Bruce Lee