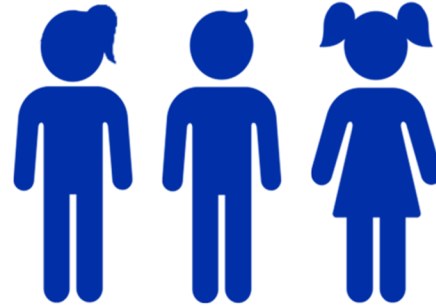




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InChildHealth



The InChildHealth Walkthrough Survey

Towards a standardised characterisation of classrooms for Indoor Air Quality studies in Europe

Katrin Vorkamp
Aarhus University, Denmark

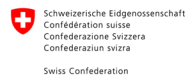


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ZENTRUM FÜR SOZIALE INNOVATION
 CENTRE FOR SOCIAL INNOVATION

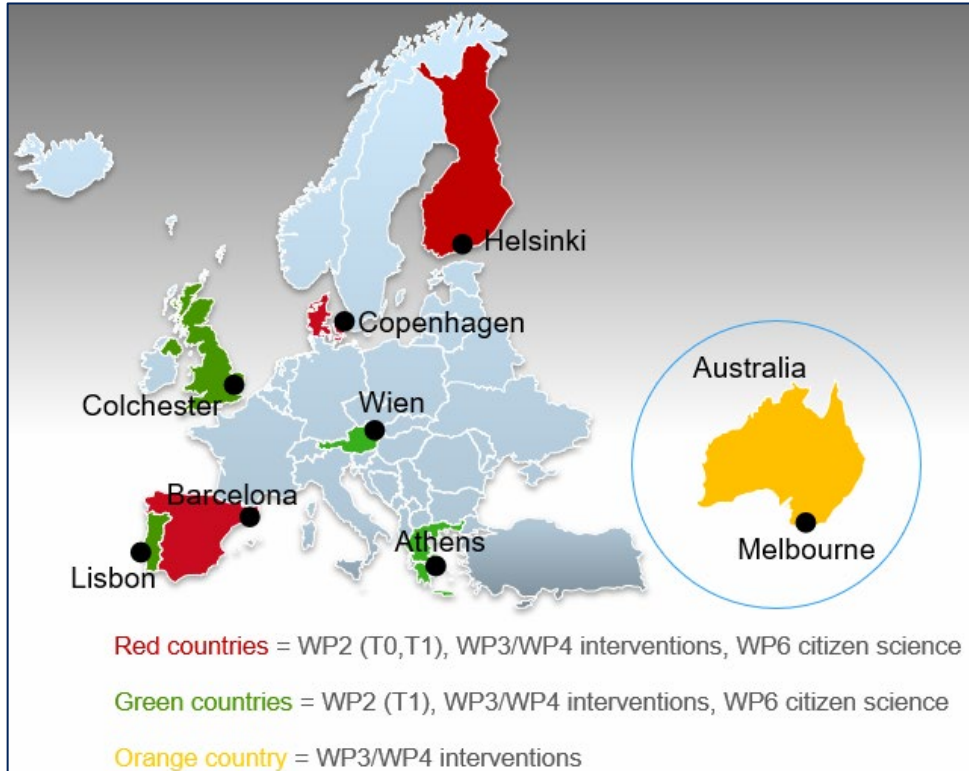


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InChildHealth



- Characterisation of air quality in children's environments
- Identification of emission sources and influencing factors
- Estimation of body burdens and associated health effects
- Development of toxicity assessment pipeline
- Integrated risk assessment
- Development of monitoring devices
- Development of novel technologies to decrease disease burdens
- Adaptation of Citizen Science methodology
- Preparation of guidelines

Variety of buildings

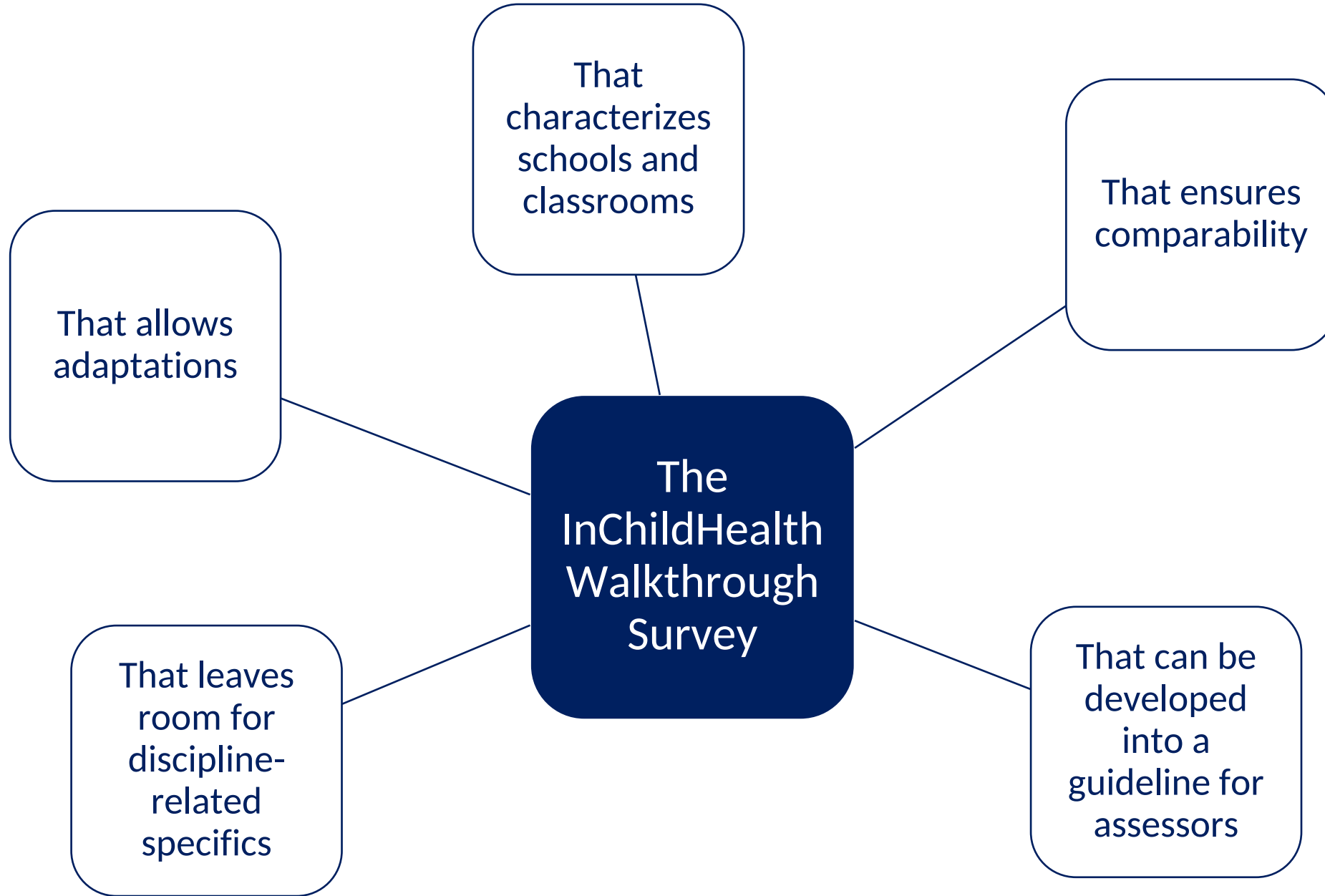
Ratsgymnasium Minden, established 1530



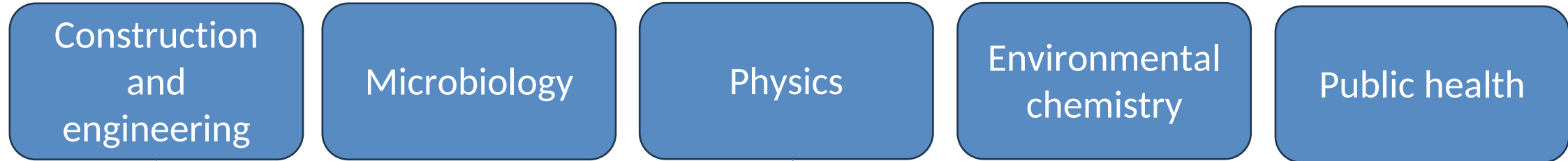
Islands Brygge Skole, Copenhagen, 2021



Need for a standardized questionnaire



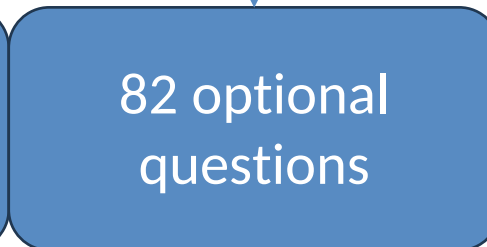
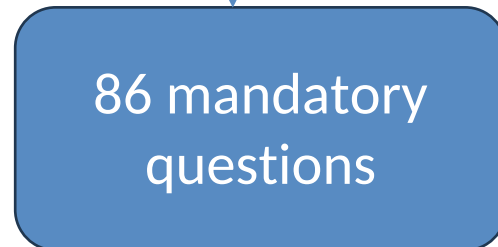
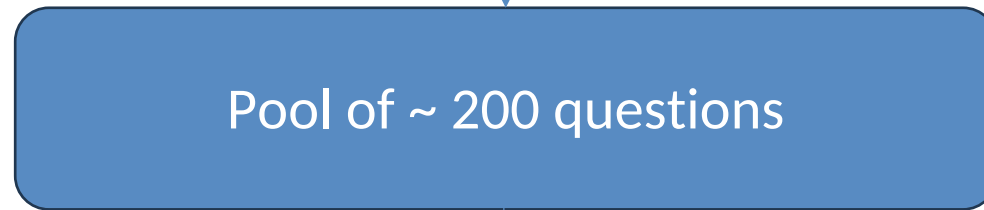
Interdisciplinary approach



Relevance

- for the integrated exposure assessment
- for all cities and countries

Unambiguity of the question



Mandatory questions

Section	Example	No. of questions
Introduction	Date, name	2
General information	Address, number of students, teachers (and other staff), educational level	13
School building	Year of construction, number of rooms, other facilities (gym, labs, library etc.), kitchen	16
Surroundings	Proximity to agricultural area, industry, traffic	6
HVAC system	Type of heating and ventilation, air circulation in AHUs, maintenance plan	13
Classroom interior	Floor and wall material, carpets and curtains, computers	23
Hygiene, air quality and food safety	Waste containers, cleaning routines and materials, food in the classrooms	13

Implementation

- Combinations of yes/no answers, multiple choice and open questions
- Graphics on HVAC included
- Digital and paper options
- To be filled in by project members, with help from local school technicians
- Training workshops for project members
- English version only
- Implementation in REDCap™



School building information - Mandatory questions	
When was the school built?	_____
Number of school buildings	_____
What kind of building material is used?	<input type="checkbox"/> Brick <input type="checkbox"/> Cement <input type="checkbox"/> Plasterboard <input type="checkbox"/> Tiles <input type="checkbox"/> Natural Stone <input type="checkbox"/> Wood <input type="checkbox"/> Paper <input type="checkbox"/> Cork <input type="checkbox"/> Other _____
Has asbestos been used in the building materials	<input type="radio"/> Yes <input type="radio"/> No
Number of classrooms	_____
Parking	<input type="radio"/> Indoor parking <input type="radio"/> Outdoor parking <input type="radio"/> No parking
Changing rooms/bathrooms	<input type="radio"/> Yes <input type="radio"/> No

So far applied in Lisbon, Vienna and Barcelona, with good results.

Citizen Science

Hand 8/10/20 4B (BK)

Bestandsaufnahme für Schüler*innen

In deiner Schule gibt es viele Faktoren, die die Luftqualität in Schulklassen beeinflussen können und die für uns Forscher*innen wichtig sind.

Mit Hilfe dieses Fragebogens können wir bestimmte Zusammenhänge besser erkennen und gleichzeitig kannst du einen wichtigen Beitrag zu unserer Forschung machen.

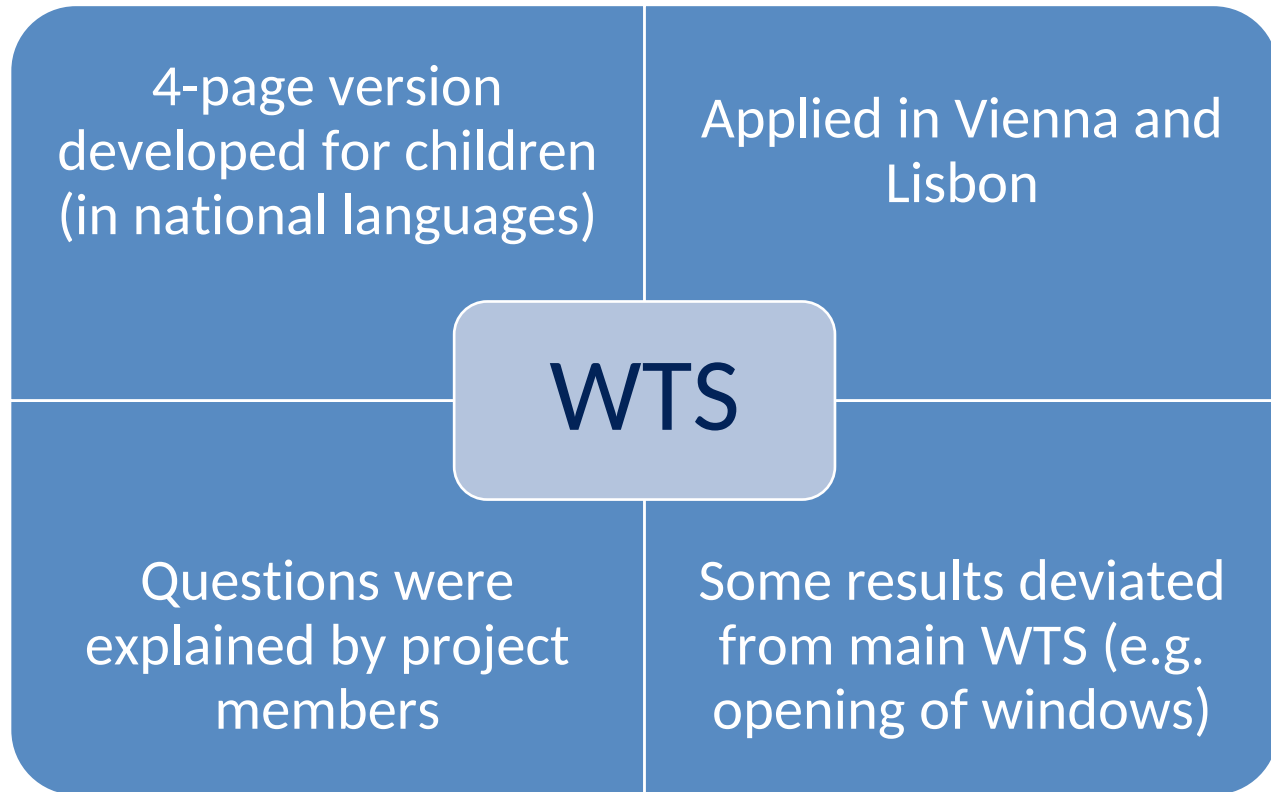
Vielen Dank für Deine Unterstützung!

Bitte beschreibe dein Klassenzimmer:

1. Welche Art von Bodenbelag wird in deinem Klassenzimmer verwendet?
Stabparkett
Holz, Teppich (relativ groß hinten)
2. Welches Material wurde für die Wand in deinem Klassenzimmer verwendet?
Farbe, Pinnwand, Fliesen, Klebefolie (caus. neben)
3. Aus welchem Material bestehen die Schreibtische in deinem Klassenzimmer?
Spanplatten, Plastikbeschichtung, Metall
4. Aus welchem Material bestehen die Stühle in deinem Klassenzimmer?
Holz, Metall, Plastikteile + Filz
5. Gibt es in deinem Klassenzimmer Möbelstücke mit Polsterungen wie zum Beispiel Sofas oder Stühle? Wenn ja, welche?
Plastikstuhl mit Polster drauf

1

EU Vertragsnummer: 10105688 (www.inchildhealth.eu)





Conclusions

Major differences among countries and schools require a standardized approach to school descriptions.

The mandatory questions ensure comparability, while the optional questions allow for discipline-specific research.

The walkthrough survey will be developed further, for characterization of homes and for use by professionals



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Federal Department of Economic Affairs,
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State Secretariat for Education,
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