



Working together to deliver healthy schools

Who are we?

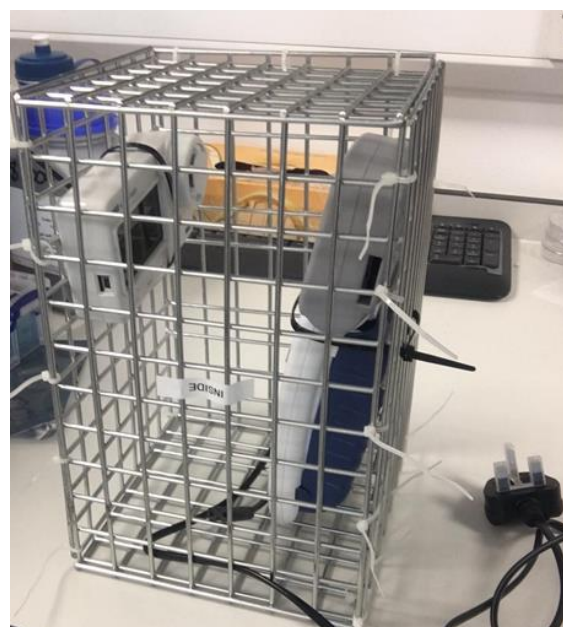
We are a multidisciplinary group of researchers working at universities including Cambridge, Surrey and Imperial College on two UKRI projects - TAPAS and CO-TRACE. The TAPAS network (www.tapasnetwork.co.uk) is focused on improving air quality in schools. We're working with the Clean Air for Schools framework from Global Action Plan and bringing school communities together with researchers, industry and civil society to develop the research base to operate healthy schools now and in the future.

CO-TRACE stands for COvid-19 Transmission Risk Assessment Case studies - education Establishments (CO-TRACE). We know that you have been working incredibly hard to keep children safe and healthy as they return to school in the context of the pandemic, and we want to help provide further guidance in the run up to next winter.

How will we do this?

Our plan is to place sensors in classrooms to monitor indoor air pollution levels. The sensor sits in the corner of the classroom, gathering information and showing live levels of gases like carbon dioxide. Would it show a link between levels of CO₂ and the alertness of students? What opportunities would it generate to engage students in a discussion about the air they breathe? What could the school community learn about how viruses build up in the air, for example, or pollution from cars and cooking? And would it lead to ideas on how to organise classrooms, buildings and their surroundings to make the environment as healthy as possible?...

We would like to work with you to explore these types of questions, to help us all understand more about air quality at school.



mesh cage (400 mm x 250 mm x 250 mm)

What we can find out together

Our monitors track CO₂, which can be used as a proxy for a range of pollutants in the air - including virus particles like Covid. They also measure particulate matter (PM) - the small airborne particles that come from traffic emissions and other forms of combustion. Tracking levels of CO₂ and PM in relation to the environment, can help answer questions like - how much cleaner is the air we breathe when the windows are closed or open? Does how and when we open the windows make a difference? Do we see more pollutants inside at school pick up and drop off times and do interventions like school streets improve things?...

If you are interested in the behaviour of pollution and viruses in the air at school then let us know what you'd like to find out and we can try to design interventions that will help to answer these questions.

Follow up

Monitoring takes just a couple of weeks, but once the monitors have gone, we can help you to answer some of the questions that might have been raised. We're happy to come back to school to talk you through the data and discuss approaches and tools for making your school environment healthier. We're also keen to interview teachers post-monitoring to find out more about their experience of the process.