

## TEACHER INFORMATION LETTER

**Project Title:** KidVision: Using Wearable Cameras to Understand Children’s Interactions with the World

**Application Number:** 2020-142H

**Principal Investigator:** Professor Chris Lonsdale

Dear Teacher,

Teachers and students (and their parents) from your school are invited to take part in a research study.

### What is the study about?

How do primary school students spend their time?

How do students interact with the world and with each other?

Student’s lives have changed greatly in the past few decades. For example, students have many more technological options for learning and recreation than previous generations. They may also be less likely to engage in unstructured free play or walk or bike to school. The impact of these changes on student’s learning and development is largely unknown because most previous research has relied on self-reported or parent-reported data about how students spend their time.

Our study will be among the first in the world to collect data using objective measures (wearable cameras) to understand how students interact with the world and how they use technology. By being a part of this study, parents and teachers have an opportunity to learn more about how students spend their time and advance our understanding about student’s learning and development.

### Who is undertaking the study?

This study is being led by Australian Catholic University (ACU), and other world-leading researchers. The investigators are:

Investigator	Experience Relevant to Project
Professor Chris Lonsdale	Prof Lonsdale is a health scientist with 20 years of research experience. His research examines the motivational underpinnings of behaviour in a variety of contexts, including education, healthcare, and physical activity.
Dr Taren Sanders	Dr Sanders is a health scientist with eight years research experience. He has expertise in behaviour measurement for young people, and in the management of large datasets.
Professor Phil Parker	Prof Parker is a psychologist with over 15 years of research experience. He uses large longitudinal databases from countries such as Australia, US, UK, Germany, and Finland where he focuses on career pathways, educational attainment.

Dr Borja del Pozo-Cruz	Dr Pozo-Cruz has 10 years of research experience. His research explores the assessment of physical activity and sedentary behaviour patterns using objective techniques.
Dr Michael Noetel	Dr Noetel is a psychologist who has been teaching for over 10 years. He has contributed to a large number of funded projects aimed at engaging students in education.

**Other investigators** are: Ms Christine Innes-Hughes from NSW Health, Professor Stuart Biddle from University of Southern Queensland, Professor Katariina Salmela-Aro from the University of Helsinki (Finland), Professor Louise Signal and Professor Rachel Taylor from the University of Otago (New Zealand), and Dr Aiden Doherty from Oxford University (United Kingdom).

### Who can participate in the study?

We are inviting students from Years 2, 3 and 4 (and their teachers and parents) to be in our study. From the teachers who agree to be in the study, we will randomly select two classes from each school to participate in the study. These students (and their teachers and parents) will then be invited to participate.

### What are we asking participants to do?

#### Teachers

Years 2, 3, and 4 teachers selected to participate will be asked to complete a questionnaire at three time points: baseline in 2023, then the same time in each year during 2024 and 2025. The questionnaire will be brief (1 to 3 minutes per student) and will ask about each student in their class who participates. Based on similar research, we expect that approximately 10 students from a class of 25 will volunteer, meaning that the teacher will need to spend about 20 minutes completing the questionnaire. At the end of the study, we will invite a small-sub sample of teachers to take part in an interview that would take up to 30 minutes.

#### Student Measures

We are inviting students who are in Years 2, 3, and 4 in 2023 to participate at three time points: baseline in 2023, then the same time in each year during 2024 and 2025. In each school, we will select two to three classes of students per school from Years 2, 3 and 4 in 2023 to complete the measures below [1-4]. At the end of the study we will also invite a small sub-sample to participate in an interview that would take up to 30 minutes.

#### 1. Questionnaire:

Students will be asked to complete a 20-minute questionnaire on a Tablet at the start of the study (2023). At the end of the questionnaire there will be two tasks presented as games for students to complete on the Tablet. The tasks are from a cognitive battery that will measure students' executive functioning. This will take place in a classroom environment under the supervision of trained research assistants with current Working With Children Checks.



#### 2. NAPLAN and Student Enrolment Dataset

At the end of the study, students' data will be linked to their NAPLAN data, and demographic information linked to the Student Enrolment Dataset. This will include demographic variables about the parent/guardian and child (e.g., ethnicity, language spoken, sex, occupation, education level, etc.) and NAPLAN scores before and during the study period. This will be provided by the NSW Educational Standards Authority (NESA) or the Queensland Curriculum & Assessment Authority (QCAA).

### 3. Activity and Sleep Monitor

We will ask students to wear a 'GENEActiv' physical activity and sleep monitor for eight days. This is a watch-like device which measures the student's movement. This device will tell us how much time the student spends sitting, being active, or sleeping. The device is "always on" but the student or parent/carer may remove it at any time. If the student needs to remove the device, we ask that they put it back on at the next possible moment. We would like the student to wear the monitor all day for 8 days, including when they go to bed at night. The monitor is waterproof, so the student can wear it in the shower or swimming pool. The device does not have GPS and cannot track the student's location.



### 4. Wearable Camera

We will ask students to wear a small, lightweight camera (pictured to the right) on four separate days, including three weekdays and one weekend day. The purpose of the camera is to record what the student can see throughout the day. The camera takes pictures every 10- 20 seconds (no video or audio). Students will be asked to wear the camera during all waking hours that they are not on school grounds.

- Students will not wear the camera on school grounds.
- If the student feels uncomfortable, or is in a place where photography is inappropriate or prohibited (e.g., bathroom, swimming pool) we will ask students to turn their camera off or remove the camera.



To further ensure privacy of all teachers and other third parties, we will:

- Use 'imaging blurring' technology to blur all faces captured by the camera before being viewed by any person. A computer program will automatically blur the faces in images captured. The image photo to the right provides an example of what the blurred images look like. The original images will be permanently deleted before the research team leaves the school grounds.
- To maintain privacy of third parties, you will not be able to receive a copy of the images. Please see "I am concerned about privacy - how will privacy and confidentiality be protected?" below for further information.



### How much time will this study take?

#### Teachers

Depending on student response rate, teachers will require approximately 20 minutes to complete the questionnaire (1 to 3 minutes per student) at the start of the study in 2023. The amount of time required to complete the questionnaire at 12 and 24 months will depend on the number of participating students in the teachers class. Overall, we estimate that each teacher will need to spend 60 minutes on the project across all three time points.

One teacher who is recommended by the school principal to work with ACU's project officer to coordinate data collection visits will require up to 90 minutes in the first year and 60 minutes per year after that (210 minutes over the project).

#### Students

Years 2, 3 and 4 students will require 20 minutes to complete the measures at each time point (i.e., in 2023, 2024 and 2025) and this will take place during school time. Students will complete a 5 minute

question and answer session with a research assistant at the first time point. This session will show students how to operate their wearable camera (e.g., turn the camera off and on) and allow students to ask any questions they may have. In total, students will need 60 minutes to complete the questionnaires across the entire project. In addition to the time required to complete the measures, students will wear the activity/sleep monitor for eight days and the camera for four days at each time point. A small sub-sample of students will be invited to participate in an interview which will take approximately 30 minutes.

### **Are there any risks for participants?**

Individuals who are not wearing the camera might feel uncomfortable knowing that they could be photographed (i.e., walking in the background). To minimise these risks, we will strictly adhere to an existing ethical framework for the use of the wearable cameras in behavioural research (Kelly et al., American Journal of Preventive Medicine, 2013). The framework was developed by a team at Oxford University which included Dr Aiden Doherty, who is one of the researchers in this study.

Students will be given clear instructions for wearing the camera, including instructions to take the camera off if they are asked to (e.g., by a shopkeeper, teacher or student), or if they feel uncomfortable. The research assistant will be available to answer questions from any student, parent, or staff member.

Researchers are obliged to comply with lawful orders (e.g., subpoena or search warrant) and provide data (images) when required. In the event the research team views data that suggests a serious crime has taken place, researchers are required to report this to the University's ethics committee and to the appropriate Government Department (e.g., NSW/QLD Police or Department of Education). If data reveals a student has been harmed, or is at risk of being harmed, the researchers are required to immediately report this to the school Principal.

### **What are the benefits of the study?**

The findings of this study will help us better understand how students spend their time and engage with the world, especially as it relates to the use of technology. The information gathered in this study will help us to identify the aspects of a student's life that lead to better learning and development.

For schools who choose to participate, we will offer free access to an award-winning evidence-based online teacher professional learning course for all teachers at participating schools (an average value of \$130/teacher). The course is called iPLAY and it was developed by ACU, the University of Newcastle, and the NSW Department of Education to help teachers promote student physical activity and health. The program has been implemented by more than 3,000 teachers in over 190 schools and has been shown to increase students' cardiorespiratory fitness and enhance their self-reported wellbeing. Teachers can complete as much or as little of the program as they like and can claim up to 13 hours of professional learning by completing the entire course. Teachers will have access to the course for the duration of their school's participation in the study (about two years). For more information about iPLAY, you can visit the program website at [iplay.org.au](http://iplay.org.au).

We will provide each school with a summary report of the project's findings. This report will not provide any data that will be identifiable at the individual or school level. This report will provide an overview of study findings, written in non-technical language. We will also provide the Department of Education with a report that includes suggestions for policy development and teacher professional learning, if appropriate.

### **Can teachers withdraw from the study?**

Participation in the study is entirely voluntary. If you agree to participate, you can choose to withdraw from the study and stop participating at any time. A decision not to participate, or to end involvement

with the study, will not jeopardise your relationship with the Australian Catholic University.

**I am concerned about privacy - how will privacy and confidentiality be protected?**

The researchers will follow strict protocols to ensure any personal information remains confidential. Once the data has been collected, de-identified using a coding system, and entered into an electronic database, any questionnaires or other data collection sheets will be destroyed. Images collected by the wearable cameras will be treated with the strictest confidentiality. As discussed above in the “wearable camera” section (item 4), we will use imaging blurring technology to **blur faces captured before images are viewed by a person**. This includes teachers, and all other third parties. To maintain privacy of third parties, no parents or the school will be able to receive a copy of the images. The wearable camera will be locked in such a way that only the researchers will be able to access the camera. This will prevent any unauthorised access in the event a camera is lost or misplaced. **This device will not record any video or audio.**

The number of researchers who can access the camera images will be limited to those analysing the data. The electronic files will be retained for at least 10 years, but we will not publish data that would allow any individual (student or otherwise) to be identified. Any publications or presentations related to these data will provide only summary data, meaning that no individual or their data can be identified. Researchers outside of our team will be able to apply to access coded data or request that we code specific behaviours or environments, but they will not be able to view any images.

**Who is funding this study and has this been approved?**

The study is funded by the Australian Research Council. This has been approved by the Australian Catholic University Human Research Ethics Committee (reference: 2020-142H) and Brisbane Catholic Education.

**Who do I contact if I have questions about the study?**

Thank you for considering this invitation. If you would like further information, the below contacts have been provided. Please contact the Project Officer via email: [KidVision@acu.edu.au](mailto:KidVision@acu.edu.au) or phone: **(02) 9701 4629**.

**Project Officer**

Kirsty Bergan

Australian Catholic University

**Investigator**

Dr Taren Sanders

Australian Catholic University

**Lead Investigator**

Prof Chris Lonsdale

Australian Catholic University

**What if I have a complaint or any concerns?**

If you have any complaints or reservations about the ethical conduct of this research, or questions about your rights as a research participant, you may contact the ACU Ethics Committee on (02) 9739 2519 or email [resethics.manager@acu.edu.au](mailto:resethics.manager@acu.edu.au) and quote the approval number 2020-142H. Any issue you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

**What do I need to do?**

Thank you for your consideration. Please click here or complete and return the attached form with your decision to participate or withdraw from all or part of the study. The form can be returned directly to the research team via email: [KidVision@acu.edu.au](mailto:KidVision@acu.edu.au)



**ACU**

**INSTITUTE FOR  
POSITIVE PSYCHOLOGY  
& EDUCATION**

Yours sincerely,

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## TEACHER CONSENT FORM

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I acknowledge that:

1. I have read the information sheet and been given the opportunity to discuss the information and my involvement in the study with the researchers via email or telephone.
2. The procedures required for the study and the time involved have been explained to me, and any questions I have about the study have been answered to my satisfaction.
3. I understand that involvement is confidential, and that information gained during the study may be published, but no participant information will be used in any way that reveals their identity. If a serious crime takes place, the researchers will be required to report this to the University and appropriate Government department. If the crime involves harm or risk of harm to a student, the researchers will report this to the school Principal.
4. I understand that I can withdraw from the study at any time with no consequences.

**I consent to being involved in the following activities:**

*(Cross out any activity that you do not provide consent)*

- completing the teacher questionnaire at three time points: 2023, 2024 and 2025.
- participating in a 30-minute interview in 2024.

My First Name: \_\_\_\_\_ My Surname: \_\_\_\_\_

My Number: \_\_\_\_\_ My Email: \_\_\_\_\_

My School: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Please return the form to: [KidVision@acu.edu.au](mailto:KidVision@acu.edu.au)