

Information sheet for parent, carers and students: The Virtual Reality (VR) School Project



Invitation for your child to participate in a research project

We are writing to get your permission (consent) and the agreement of your child (assent) to learn about ecosystems in the computer game Minecraft using a virtual reality (VR) headset called Oculus Rift (pictured on the right). Teachers from Callaghan College and researchers from the University of Newcastle (UoN) have received funding from the Australian Government Digital Literacy School Grants (DLSG) to use virtual reality headsets in classrooms for learning. If you do not want to read this sheet you can watch a video on the project that gives you the same information – go to www.vrschoolresearch.com

Why is the research being done?

New VR headsets (such as PlayStation VR) are becoming more common especially for gaming. Using a VR headset increases the feeling of 'being there' in the game. Callaghan College already uses Minecraft for learning. We are interested in how students learn in the normal computer version of Minecraft compared with the headset version of the game.

Who can participate in the research?

All students in select Year 8 classes at Wallsend and Waratah campuses including those who can and cannot use virtual reality headsets as a normal part of their lessons about ecosystems.

What is being asked of the participants?

All students in the selected Year 8 classes will use the normal computer version of Minecraft to learn about ecosystems. If your child agrees to take part in the research and you also give permission, your child will be allowed to use the headset version of Minecraft as well as the normal computer version in lessons. Your child will also be asked to fill out the Motivation and Engagement for learning survey at the beginning and end of the project and take part in an audio recorded group discussion led by a university researcher about what it was like to learn in VR. Researchers would video record the interactions of students when learning in Minecraft and look at the work students produce in class to understand learning in VR. We would also like your permission to look at your child's grades so that we can see if learning has improved. Usually only the classroom teacher and one person from the university research team will be in the classroom during lessons; however on some occasions members of the research team from Callaghan College may also observe lessons.

What are the risks and benefits of participating?

At this stage we cannot say if learning with VR headsets is better than learning without them. VR headsets are a relatively new technology. Some students using VR headsets may get motion sickness (cyber-sickness), or have a bad reaction to the lighting and other effects in this type of VR. If you give permission, we ask that you fill out the health and safety survey with your child (attached to this information sheet). This will help the research team determine if your child might have a bad reaction. We will send a letter home to you if we think they could have a bad reaction from using headset, and your child can still use the normal computer version of Minecraft for learning instead of the headset version. All students using headsets will be given a safety talk by the teacher and will be monitored in the class by the teacher and researcher. Student time in headsets will be limited to 15 minutes. If the student feels sick in VR the teacher will stop the VR play and assess their condition, referring them to the first officer if required. This is normal school procedure for students who feel ill.

How much time will it take?

Students will be using Minecraft to learn about ecosystems in their science lessons in Term 4. The VR headsets will be used during this time as a normal part of lesson. Students will fill in the surveys and have the group discussion as part of their normal lesson.

How will your child's privacy be protected?

All grade and survey information, group discussion audio, video recordings and student work will only be seen by the research team. Group discussions will be audio recorded and typed out by a transcriber who has signed a confidentiality agreement. The typed out version will be 'cleaned' of identifying information and pseudonyms used for people. The notes we produce from the video on your child's learning in Minecraft will also be 'cleaned' in this way. Videoing will focus on the computer screen. However, if your child does get in the view of the video they will not be able to be identified as their face

will be blurred and verbal identifiers taken out of the video. Each child will be given a number to identify them and their grades, survey results, their typed-out group discussion, video and notes, and school work will be matched to the number. This will become the main source of information that will be analysed. While the School will be identifiable in publications about the project, students will not be identifiable. This information (data) will be retained for at least 5 years as per University of Newcastle requirements. Data will be stored on a password protected computer drive and in locked filing cabinets and will only be accessed for research purposes unless you consent otherwise, except as required by law.

How will the information collected be used?

The information collected will be presented at conferences, in online project reports and academic publications. Students will not be identified in any presentation, online report, blog or publication arising from the project. Reports will be available for free download from your child's school website and from <http://dice.newcastle.edu.au> Updates on the project can be found at <https://vrschoolresearch.com>

What do you need for your child to participate?

Please read this Information Sheet and discuss the project with your child before you both agree to participate by signing the consent form. If there is anything you do not understand or you have questions, please contact Mr Graham Eather, Principal, Callaghan College Principal, Callaghan College Graham.eather@det.nsw.edu.au or on 4960 3777 or contact Associate Professor Erica Southgate of the University of Newcastle at erica.southgate@newcastle.edu.au or on 49216325.

Thank you for considering this invitation.

Yours sincerely on behalf of the research team,

Mr Graham Eather
Callaghan College

Associate Professor Erica Southgate
University of Newcastle, Australia

The VR School research team is:

Callaghan College Staff: Graham Eather, Candace Bergin, Mathew Murray, Roger Macey, Paul Tracey, Ben Peters, David Summerville, Allyson Corrigan, Cory MacDonald, Robyn Christie, Christopher Cividino, Jivvel Kilham, Shane Saxby, Amy Worth and Dana Fuller.

University of Newcastle Staff: Erica Southgate, Shamus Smith, Jill Scevak and Rachel Buchanan

Complaints about this research

This project has been approved by the University's Human Research Ethics Committee (Approval No. H-2017-0229) and the NSW Department of Education State Education Research Applications Process (SERAP) (Approval No. 2017396). Should you have concerns about your rights as a participant in this research, or you have a complaint about the manner in which the research is conducted, it may be given to the researcher, or, if an independent person is preferred, to the Human Research Ethics Officer, Research & Innovation Services, The University of Newcastle, University Drive, Callaghan NSW 2308, Australia, telephone (02) 4921 6333, email Human-Ethics@newcastle.edu.au.