

- On behalf of researchers, distribute a project pack to students to take home and discuss with their parents/caregivers. This pack contains Participant Information Sheets for the student and their parents/caregivers inviting them to take part and, if they agree, to sign and return the Consent Form in the Woolf Fisher Research Centre self-seal envelope provided.
- On behalf of researchers, receive self-seal envelopes with Consent Forms from students and parents/caregivers.
- Complete one questionnaire (approximately 30 minutes) in Term 3, 2018 either online or paper-based in their own time. This will ask questions about their digital instructional practices.
- Be observed by a researcher for up to 1 hour; in Term 3, 2018. The researcher will make notes of the lesson using an observation template recording teacher activity, student grouping and the nature of digitally integrated instruction. Teachers can request a copy of the researcher's notes.
- For students who agree to take part and have parental consent, conduct one online discussion board activity in a lesson in Term 3, 2018.

What will you be invited to do?

We would like to invite parents/caregivers to do the following between May and December 2018:

- Give permission for your child to take part; if your child is under 16 years you will be required to sign a Consent Form for them to take part and they will need to sign the Assent Form.
- Consent to complete one questionnaire (approximately 35 minutes) in Term 3, 2018, either online or paper-based telling us how you support your child with their digital learning and development. Researchers will either email the questionnaire link or provide a stamped, self-addressed envelope with a questionnaire for those who opt to use the paper-based version.

What will students be invited to do?

If students are under 16 years, both the student and parents/caregivers must agree that the student can take part. If both give permission, we would like to invite students to do the following between May and December 2018 (students 16 and above may consent on their own behalf):

- Complete one online social/digital questionnaire during school time in Term 4, 2018. This will take approximately 30 minutes to complete.
- Complete one online critical thinking questionnaire during school time in Term 4, 2018. This will take approximately 30 minutes to complete.
- Complete one online discussion board post in Term 3, 2018. This will take approximately 30 minutes and test argumentation skills within a digital context. Researchers will liaise with teachers on the task requirements.

Privacy and confidentiality

Participants' privacy and confidentiality is important to us and will be protected at all times during and after the project is completed. All researchers involved with the study must comply with the UoA Ethics and the New Zealand Privacy Act 1993. The UoA Human Participants Ethics Committee has given approval for this study to be conducted. Only aggregated research findings will be discussed and published. Reports, articles and feedback arising from this research will not identify the school and/or any participants as the source of the data. All participants' information will remain completely confidential to the researchers. Online questionnaires will be sent directly to a UoA platform. All data will be kept securely **on the server network drive** at the Woolf Fisher Research Centre for six years.

Electronic consent information will be stored in a separate database and hard copies will be stored in a locked room. Data will then be confidentially destroyed and/or deleted after six years.

If you want to take part

Please sign the Consent Form and email this to the Project Manager, Angela McNicholl, on a.mcnicholl@auckland.ac.nz. If you have questions or would like more information contact the Science Leader, Professor Stuart McNaughton, on: s.mcnaughton@auckland.ac.nz.

Key Researchers

Professor Stuart McNaughton – University of Auckland
 Dr Rebecca Jesson – University of Auckland
 Dr Rashina Hoda – University of Auckland
 Professor Elaine Reese – University of Otago
 Dr Cynthia Greenleaf – WestEd, USA
 Cath Rau – Kia Ata Mai Educational Trust

Project Manager

Angela McNicholl, a.mcnicholl@auckland.ac.nz
 Ph: +64 9 623 8899 ext. 88978

Research Assistant

Naomi Rosedale, n.rosedale@auckland.ac.nz
 Ph: +64 9 373 7999 ext. 48704

Associate Professor Mark Barrow,
m.barrow@auckland.ac.nz
 Ph: +64 9 373 7999 ext. 48821

For any concerns regarding ethical issues you may contact:

The Chair
 The University of Auckland Human Participants Ethics Committee
 The University of Auckland, Research Office – Office of the Vice Chancellor
 Private Bag 92019, Auckland 1142
 Telephone: +64 09 373 7599 ext. 83711
 Email: ro-ethics@auckland.ac.nz



PARTICIPANT INFORMATION SHEET

Secondary School

Parents/Caregivers

Your child's school has agreed to take part in the **Developing in Digital Worlds** research project. This information sheet outlines what the school has agreed to do and to invite you to participate in Phase Two and Three of the project.



Tēnā koutou katoa, Talofa lava, Malo e lelei, Kia Orana, Fakalofa Lahi Atu, Greetings

Thank you for taking part in Phase One of the *Developing in Digital Worlds* project. We appreciate your time, effort and support. If you are new to the project, welcome!

This information sheet outlines what your school, teachers, students and their parents/caregivers would be expected to do if your school chooses to take part in Phase Two and Three of the project. Phase Two will further test how to promote achievement and participation in the digital world at school and out-of-school through '21st century' cognitive and social skills development. This phase started in May 2018 and ends in December 2018. Phase Three starts in October 2018 and ends in September 2019. In this phase we will disseminate our findings.

Developing in Digital Worlds Team

This project is funded by the Ministry of Business, Innovation & Employment and is being conducted by Woolf Fisher Research Centre located in the Faculty of Education and Social Work at the University of Auckland (UoA) with: UoA Department of Engineering, University of Otago, WestEd (USA) and the Kia Ata Mai Educational Trust. The research Science Leader is Professor Stuart McNaughton.

Why this study?

This study is focusing on three cognitive and three social skills: critical thinking, critical literacy, argumentation (cognitive); self-regulation, collaborative reasoning, and pro-social skills (social). *Developing in Digital Worlds* will deliver descriptions of these '21st century' skills which are currently inadequately described, not assessed and not mapped onto the New Zealand Curriculum and Te Marautanga o Aotearoa.

Objectives and aims

Our overarching hypothesis is that cognitive and social development will have characteristics specific to the '21st century' digital world. We want to identify dimensions in those environments which influence the timing and quality of their acquisition.

This study has three objectives:

- to change our current level of understanding of '21st century' skills;
- to understand how to prevent the new digital environments opening up a second 'digital divide' between low socio-economic status or diverse cultural and linguistic communities from more affluent 'mainstream' communities;
- to meet the challenge of the Vision Marautanga policy through comparing three school clusters whereby development of the target

skills within an 'early adopting' cluster and 'later adopting' clusters (English and Māori medium) are described and compared.

The study will answer three research questions:

- How does participation in the digital world influence children's cognitive and social development?
- What skills, knowledge and capabilities do children need to manage, engage and benefit from participating in the digital world?
- How can family, educators and society effectively support children's involvement in the digital world?

Who is involved?

Developing in Digital Worlds is a collaboration with one 'early adopting' school cluster, and two 'later adopting' school clusters (English and Māori medium). We want to collect information from teachers (primary and secondary), students (aged 4 to 17), and their parents/caregivers.

Data collection and use

Phase Two involves collection of the following data to track cognitive and social skill development and the promotion of student outcomes since Phase One:

- Literacy, numeracy and science inquiry data from school based assessments (e.g., asTTle tests, PAT)
- Observations of teacher lessons
- Questionnaires for teachers, students and parents/caregivers
- Student online discussion board activity

There will be the opportunity to participate in a further two studies which offer specific focus on 21st century skill development through family guidance and digital tools (games).

Researchers will contact you at a later date to discuss this opportunity.

All data will be coded, entered into databases and analysed by researchers.

What will happen with the information?

We are committed to keeping participants informed and will continue to provide ongoing feedback as the project progresses. We will do this via newsletters, research updates on the project and Manaiakalani websites, feedback sessions with schools, and through partnerships with Manaiakalani Education Trust, Ngā Kura a Iwi, Pasifika External Advisory Komiti, MoE, students, parents/whānau and educational professionals / networks such as New Zealand Literacy Association and CORE Education.

At the end of the project we will provide participants with access to a summary report of the overall findings. These findings will inform national

educational policy for developing cognitive and social skills in digital environments.

Do you have to take part in the study?

No, as participation is voluntary. Individual participants can withdraw from the project at any time without having to give any reason.

You may withdraw **any information or data you (or your child) have provided** up to 31 July 2018.

What will your school be doing?

Your school has given us permission to conduct research and has:

- Agreed to inform staff, students, and parents/caregivers that the school is taking part;
- Given assurance to staff, students, and parents/caregivers that their participation or non-participation will not influence their relationship with the school or their access to school services;
- Agreed to provide researchers with contact details for teachers of students in Years 9-12 so researchers invite them to participate;
- Agreed to allow researchers to meet with consenting teachers to explain the data collection process and answer any questions;
- Agreed to allow researchers to access to school collected student achievement and demographic data (literacy, numeracy and science inquiry where available) for Term 1-4, 2017 and Term 1-4, 2018 for Years 9-12 students;
- Agreed to provide researchers with school email addresses for students in Years 9-12 so we can their National Student Number (NSN) to email address for the discussion board activity;
- Agreed to allow consenting teachers, on behalf of researchers, to distribute a project pack to students to take home and discuss with their parents/caregivers. This pack contains Participant Information Sheets for the student and their parents/caregivers inviting them to take part and, if they agree, to sign and return the Consent Form to the teacher in the Woolf Fisher Research Centre self-seal envelope provided. Woolf Fisher Research Centre will collect the envelopes at regular times. Teachers will not be responsible for recruiting students and parents/caregivers to participate in the research.
- Agreed to allow researchers to place a link in the school's newsletter and/or websites to online Participant Information Sheets and Consent Forms.

What will teachers be invited to do?

Teachers of Years 9-12 who agree to take part will need to sign a Consent Form. Consenting teachers will be asked to do the following from May 2018 to December 2018: