Using mobile apps to engage students in learning science

Project: **Exploring the role of mobile apps in improving student understanding and enjoyment of science**

University: UNSW Sydney

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Ethics Approval: **HC190489**

This research will explore whether custom made mobile apps can improve their enjoyment of learning science and help students better understand scientific topics. This research is in partnership with an Australian education company – Arludo – created by Associate Professor Michael Kasumovic.

Arludo creates mobile apps that are gamified experiments – as students use the apps to explore scientific concepts, they are collecting scientific data that are automatically displayed as figures. This way, teachers can spend more time helping students understand data. We are exploring whether this improves students' critical and analytical thinking. You can find more information here: arludo.mailchimpsites.com

The mobile apps are free to download and the 8-week program comes with digital worksheets containing videos and questions that students answer online. These worksheets scaffold student learning and assess their understanding using Bloom's Taxonomy. Teachers will be able to see student answers in the teacher dashboard to more easily assess understanding and performance.

The benefits: You and your students will gain free access to an 8-week Arludo Science program and all the support during the project. This is a savings of over $1000 per 25 students.

Students and teachers will be using cutting edge software and will be able to interact directly with scientists during the program.

The 8-week program can be delivered in two ways – live weekly shows that the class attends or a standalone video program where classes can move at their own pace. Teachers can select either version of the program to ensure their students can participate. We have found that the standalone version works better for schools with poorer internet connectivity.

Your school will receive a report exploring the use of mobile devices in the classroom and have direct contact with the researchers for any help. There is also a forum for discussions: https://forum.arludo.com.

When will the study take place?

The study will start in Term 1 of 2021. We are currently contacting schools to prepare for the study.

What years is this program for?

This is suitable for students from years 3-10. For primary-aged students, this program can be integrated across the curriculum. The same can be done for secondary students if teachers would like to work with other members of their school and Arludo to do so. More information can be found at https://forum.arludo.com.

I'm interested, what are the next steps?

Please sign up at this google form (https://forms.gle/W5M39eZ2yiSBGFYy9) and Michael will contact you as soon as possible:

What aspects of the syllabus/curriculum does this link to?

The 8-week program currently explores the life sciences/natural world – ecology, evolution, animal biology. The program also matches to 'Working Scientifically' components. More details on exactly which aspects of the syllabus/curriculum the program is linked to can be found here: https://forum.arludo.com.

How is the information of my students handled?

Student privacy is of the utmost importance – All the students are anonymous and Arludo cannot identify any students as no personal information is collected. Only teachers can identify students.