

Project Consent Information Statement

Project Title: Classifying user actions in open-ended online simulator

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Project Aims

In this project we are aiming to do two things

- (a) Find out how much students like using online experiences to build conceptual knowledge, and whether attitudes to engineering as a career are influenced by access to online experiences.
- (b) Explore possibilities for evaluating student behaviour during online activities, for the purposes of priming staff to give useful and insightful feedback to students about how to become a better engineer and/or contribute to giving a mark for coursework (in future).

What is required of participants

Participation involves a single session of from 40 - 90 minutes in duration, answering two short surveys, and undertaking a 30 – 80 minute web-based engineering activity, such as programming a solar panel tracker to follow the sun, exploring complex number representations or building a cable car system.

- (a) Pre-survey on background and attitudes to engineering course(s) & career(s) – ca 3 – 5 mins
- (b) Online engineering exercise – ca 30 – 80 minutes
- (c) Post-survey on attitudes to engineering course(s) and career(s) - ca 3 – 5 mins

Confidentiality and Security of Information

We will collect survey data, and analytical data about the your interactions with the online engineering exercise (such as button presses). The analytical data will be sent directly to our secure logging server automatically. The analytical data is strictly limited to recording actions within the engineering activity and will not or can not access other information on the computer, nor will it transmit any personal details. The data will include the time, location, IP address, and anonymous unique user identification code so that we can collect together and analyse each participants' interactions. The only people with access to the data are those IT department members responsible for maintaining the operation and security of the logging server, and relevant members of the Investigators' research teams performing tasks associated with the research. Participants will not be potentially identifiable in any published material. The course details such as course name and purpose, and year of study will be provided in published material to give context, but no individual details of students.

Voluntary Nature of Participation

Participation in the research is completely voluntary, and you are at liberty to withdraw at any time without prejudice or negative consequences. You are even free to use the online activities without participating in the study, where they are publicly available.

Potential Risks, Harms and Benefits

Participation involves usage of a standard keyboard and mouse, or laptop keyboard and trackpad. None of the engineering online experiences are expected to relate to troubling matters. Students may benefit from insight into the differences between novice and experienced engineering actions as performed in the context of specific engineering tasks, which may help them develop personally. Feedback on these aspects will be delayed due to the need to perform significant analysis, with the risk that no useful feedback will be generated for participants, nor any publication made.

Further Information

Please contact the investigators for further information: Prof Timothy Drysdale (Engineering, timothy.drysdale@ed.ac.uk), Dr Kobi Gal (Informatics, kgal@exseed.ed.ac.uk)

Complaints

If you wish to make a complaint on ethical grounds, please contact the Research Ethics Coordinator in the School of Engineering, Prof. Gareth Harrison DoR@eng.ed.ac.uk.