



VOLUNTEER INFORMATION SHEET

*Development of on-line CPD resources for secondary school science teachers in Ireland:
Introduction of dynamic and interactive pedagogies and suitable formative tasks for assessing and
teaching science inquiry skills*

Dear Student/Teacher/Volunteer,

As part of a Government of Ireland Postdoctoral Fellowship Project in the University of Limerick, we are carrying out a study on developing interactive simulations for teaching and assessing science inquiry skills (hereafter referred as digital simulations). This information sheet will tell you what the study is about.

What is the study about?

This study explores how well our digital simulations work for teaching and assessing in the Physical World (Junior Cycle) and Physics (Senior Cycle). We want to understand if these digital simulations are effective and useful for both teachers and students.

What will we have to do?

Science teachers (Junior Cycle Physical World) and Physics teachers (Senior Cycle) are invited to attend a 40-minute professional training event where they will introduced the digital simulations. At a later stage, science teachers will be asked to provide feedback through the 10-20-minute survey. The survey is designed to evaluate the simulations in terms of their usability, design quality, and educational value.

For student participation, the science teachers will secure the parental/guardian consent for the study before students can take part in a survey. Students who join the study will receive the link to access the online survey from their teacher. The survey aims to assess students' motivation and aspects of scientific inquiry skills. It takes approximately 15-20 minutes to complete.

These online surveys can be accessed either in school (e.g., computer labs) or at home using a desktop or tablet.

What are the benefits?

This study aims to provide valuable digital resources for teaching and assessment using interactive simulations. These resources are designed for the Physical World (Junior Cycle) and Physics (Senior Cycle) curricula in Ireland.

For teachers: The simulations can be used for teaching, formative assessment, and enhancing students' scientific inquiry skills.

For students: The resources support self-learning and practice, helping to improve scientific literacy and inquiry skills.

These are expected to motivate post-primary students to engage more deeply with Physics, making learning more interactive and enjoyable.

By participating, you will contribute to the development of innovative tools that benefit both teaching and learning in science education.

What are the risks?

There are minimal risks associated with this study. You might decide that you don't want to answer a question. If this happens, you do not have to answer any question you do not wish to.

What if I do not want to take part?

Participation in this study is voluntary and you can choose not to take part or to stop his/her involvement in this study at any time before submitting the survey.

What happens to the information?

No identified information of participants are collected in the study. The information that is collected will be kept private and stored securely and safely on the researchers' GDPR compliant One Drive Cloud server. The information that is gathered in the study will be kept for seven years. After this time, it will be destroyed.

Who else is taking part?

- Science teachers who teach physical worlds (Junior Cycle) and who teach physics teachers (Senior Cycle).
- Post-primary students who learning physical worlds (Junior Cycle) and physics (Senior Cycle) in Limerick will be invited to take part in the study.

What if something goes wrong?

In the unlikely event that something goes wrong during the study, we will immediately stop until the researchers are ready to restart the session or the session would be stopped completely.

What happens at the end of the study?

At the end of the study the information will be used to write up a report and academic papers. The information will be completely anonymous. No participant's name appears in any of the results. All data gathered from the research will be stored securely and safely in our office for 7 years. Data will be stored on the main researcher's GDPR compliant One Drive Cloud account.

What if I have more questions or do not understand something?

If you have any questions about the study you may contact either of the researchers. It is important that you feel that all your questions have been answered.

What happens if I change my mind during the study?

You may withdraw from the study before submitting the survey. At that stage, we may not be able to identify your data from that of other participants. There are no consequences for changing your mind about being in the study.

Contact name and number of Project Investigators.**Principal Investigator Contact Details:**

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Thank you for taking the time to read this. I would be grateful if you would consider participating in this study.

Yours sincerely,

Geraldine Mooney Simmie

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This research study has received Ethics approval from the Education and Health Sciences Research Ethics Committee (2025_02_20_EHS)

If you have any concerns about this study and wish to contact someone independent you may contact:

Chair Education and Health Sciences Research Ethics Committee

EHS Faculty Office

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