

Participant Information Sheet: Gamification of Coding

1. Research Project Title

The Research Project Title is "Gamification of Coding".

2. Invitation

You are invited to take part in a research project. Before you decide whether or not to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information - the contact details of the researchers can be found below. We will aim to respond to your emails as soon as possible, generally within 2 working days. Take time to decide whether or not you wish to take part. Thank you for reading this.

3. Project Purpose

This work is a major contribution towards the 4th-year Darwin Project of the researchers listed below. It aims to inform design choices of educational platforms using gamification techniques. The experiment will run between March and April 2024.

4. Why have I been chosen?

The experiment is open to anyone enrolled on EEE125 C Programming at the University of Sheffield.

5. Do I have to take part?

This experiment is completely voluntary and the decision to take part is yours to make. Should you express interest in taking part, you have the option to withdraw from the experiment at any time. If data has been collected, you have until 01.05.2024 to give notice (email to robert.chisholm@sheffield.ac.uk) and your data will be removed. After this date, the data will be anonymised (all email addresses will be deleted) and it will not longer be possible to remove it from the database. Taking part in this experiment will not create any formal contract of employment.

6. What will happen to me if I take part? What do I have to do?

You will be sent an email with instructions for signing up for the platform which hosts the gamified challenges. Over a 2-week period, challenges will be released on the platform and you will be notified of the challenges being via email. The challenges will cover content relating to the EEE125 C Programming module. The nature of the questions will be simple and short. Each challenge will not take longer than 20 minutes per day.

For each correct answer, you will be given points which at the end of each challenge will be tallied and added to your overall score. Your overall score will determine your position on a leaderboard. The leaderboard will be viewable at any point throughout the 2 week period where challenges are

released. No personally identifiable information will be displayed on the leaderboard - instead your profile will be given a pseudonymous identify. At the end of the 2 week period, you will be asked to fill out a short questionnaire.

7. What are the possible disadvantages and risks of taking part?

The tool is designed to be supplementary to your learning experience and best efforts have been taken to align the content with that of the module. However, should there be discrepancies between content in the tool and course content, please make sure to clarify these with the module leader. Furthermore, it is important to prioritise your learning commitments over participation in this study.

8. What are the possible benefits of taking part?

Whilst there are no immediate benefits for those people participating in the project, it is hoped that this work will reinforce learning objectives from the module as well as informing design decisions for gamified learning platforms.

9. Will my taking part in this project be kept confidential?

All the information that we collect about you during the course of the research will be kept strictly confidential and will only be accessible to members of the research team. The only piece of personally identifiable data we collect is your email address, which will eventually be removed as detailed above in Section 5. You will not be able to be identified in any reports or publications.

10. What is the legal basis for processing my personal data?

According to data protection legislation, we are required to inform you that the legal basis we are applying to process your personal data is that 'processing is necessary for the performance of a task carried out in the public interest (Article 6(1)(e)). Further information can be found in the University's Privacy Notice

<https://www.sheffield.ac.uk/govern/data-protection/privacy/general>

11. What will happen to the data collected and the results of the research project?

The researchers are responsible for managing the storage and backups of the data. The researchers have taken information security training to protect research data, protect personal data, and protect information. All the information collected during the course of the research will be anonymised and will be kept strictly confidential. It will only be accessible to the members of the research group. Participants' personal information will not be able to be identified in any reports or publications. The data will be managed and stored in an anonymised form in secure cloud storage. The results will be used in the Darwin project paper of team B with the aim of publication in a peer-reviewed journal (tbd). You will not be identified in any report or publication.

12. Will I be recorded, and how will the recorded media be used?

No, you will not be recorded.

13. Who is organising and funding the research?

This research study is being carried out by the contacts named below, as part of the module COM4520 within the Department of Computer Science at the University of Sheffield.

The research has not received any external funding.

The named researchers' conduct throughout the research project will contribute to their marks for the module COM4520.

14. Who is the Data Controller?

The University of Sheffield will act as the Data Controller for this study. This means that the University is responsible for looking after your information and using it properly.

15. Who has ethically reviewed the project?

This project has been ethically approved via the University of Sheffield's Ethics Review Procedure, as administered by the Department of Computer Science.

16. What if something goes wrong and I wish to complain about the research or report a concern or incident?

If you are dissatisfied with any aspect of the research and wish to make a complaint, please contact Dr Robert Chisholm in the first instance. If you feel your complaint has not been handled in a satisfactory way you can contact the Head of the Department of Computer Science Professor Heidi Christensen. If the complaint relates to how your personal data has been handled, you can find information about how to raise a complaint in the University's Privacy Notice: <https://www.sheffield.ac.uk/govern/data-protection/privacy/general>.

17. Contact for further information

If you wish to obtain further information about the project, please contact:

Researchers:

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18. Consent form

You will have access to a copy of this information sheet and a signed consent form to keep if you so wish.

Thank you for taking part!