

Participant information sheet

Developing a software tool to assist students beginning programming using the Java language

This study aims to understand tutor perceptions of a tool designed to provide automated feedback on student code written in Java, as part of a pre-supplied lab task in a web-based environment.

The tool and accompanying [lab task](#) have been developed and used successfully with novice Java programmers at University of Chester.

The tool itself is also available as a standalone Java library for tutors to use to support their own lab tasks, should they wish. The web application is open source.

The study also aims to understand if there are any barriers to usage, and if so, what those may be.

Thank you for reading this.

What is the purpose of the study?

The project aims to explore the perceptions of teaching staff (tutors) of an automated feedback tool for Object-oriented aspects of Java code, used in conjunction with a pre-supplied lab task. It seeks to understand if there are any barriers to using the tool, as well as tutors' experience of it as a teaching aid/support tool.

Why have I been chosen?

You have been chosen because you have experience teaching introductory programming courses and are familiar with the Java language.

Do I have to take part?

It is up to you to decide whether to take part. If you decide to take part, you may wish to download a copy of this document for your records. If you decide to take part, you are still free to withdraw at any time and without giving a reason. A decision to withdraw at any time, or a decision not to take part, will not affect you in any way. Individuals who choose not to participate in the research (questionnaire and optional interview) may continue to use the lab task and tool as they wish.

How do I take part?

By evaluating a web-based tutorial on designing a class in Java, including making errors that a student might make, and then responding to a short

survey on your experience, and, if you might use it with your own students, by providing your contact details for a follow up interview.

What will happen to me if I take part?

You will be invited to review the tutorial and consider whether it would be appropriate for students learning Java. You will be invited to complete a [short survey](#) and optionally provide your contact details to be invited to a short interview.

What are the possible disadvantages and risks of taking part?

There are no major disadvantages or risks foreseen in taking part in the study. An allocation of time will be required to understand the project and how it works, however it is expected that this might offset the time required to develop a lab task from scratch, and/or by the potential benefits outlined below.

What are the possible benefits of taking part?

Use of the tool in conjunction with this lab task at the University of Chester has been shown to be well received by students, who indicated that they felt they needed less help with the task than they otherwise would, which might have a positive impact on your own time. The tool has now been integrated into a web-based version of the tutorial, to aid ease of use.

What if something goes wrong?

If you wish to complain or have any concerns about any aspect of the way you have been approached or treated during the course of this study, please contact Prof Kurt Allman, Dean of the Faculty of Science, Business and Enterprise, University of Chester, Exton Park, Chester CH1 4BJ k.allman@chester.ac.uk

Will my taking part in the study be kept confidential?

All information which is collected about you during the course of the research will be kept strictly confidential so that only the researcher carrying out the research will have access to such information.

What will happen to the results of the research study?

The results will be written up and form part of my MPhil or PhD thesis. It may also be published in conference proceedings and/or journal article(s). Individuals who participate, or their organisations will not be identified in any subsequent report or publication.

Who is organising the research?

The research is conducted as part of a MPhil/PhD in Computer Science within the Department of Computer Science at the University of Chester. The study

is organised with supervision from the department, by Andrew Muncey, an MPhil/PhD student.

Who may I contact for further information?

If you would like more information about the research before you decide whether you would be willing to take part, please contact:

Andrew Muncey a.muncey@chester.ac.uk.

Retention and publication of participant's data

Participants should note that data collected from this project may be retained and published in an anonymised form. By agreeing to participate in this project, you are consenting to the retention and publication of data.

Anonymised code written by individuals completing the tutorial is also collected, however participants can opt out of this aspect by declining cookies on the tutorial web page.

Thank you for your interest in this research.