



Department of Electrical Computer, and Software Engineering
Building 405, 5 Grafton Road, Auckland
+64 9 373 7599 ext. 89422
The University of Auckland
Private Bag 92019
Auckland, 1142
New Zealand

PARTICIPANT INFORMATION SHEET

Understanding the impact of Feedback in Software Code Review

Name of researchers: Dr. Kelly Blincoe, Sanuri Gunawardena, Peter Devine, Isabelle Beaumont, Lola Piper Garden

Researcher Introduction

Dr. Kelly Blincoe is a Senior Lecturer of Software Engineering in the Department of Electrical, Computer, and Software Engineering at the University of Auckland. Sanuri Gunawardena and Peter Devine are PhD students at the University of Auckland. Isabelle Beaumont and Lola Piper Garden are Bachelor of Software Engineering students at the University of Auckland.

This Project

Rationale: Software code review, where code contributions are examined by other members of the team, is a common practice on software teams. While this practice brings significant advantages like improved code quality and knowledge sharing, developers report that it can also create toxic, unsupportive environments. Anecdotal evidence points to the existence of “destructive criticism” (i.e. nonspecific and inconsiderate negative feedback) in code review in the form of judgmental questions, sarcasm, and comments that contain only negative emojis.

Aims: The goal of this research is to investigate the perceived impact of feedback during software code review and if the type of impact differs across gender and experience level.

Duration: This research project will continue for 36 months.

Benefits: The research will result in a better understanding of the impacts of feedback during code review, enabling better code review guidelines and tools and paving the way for future research on interventions, leading to more inclusive and welcoming software teams.

Risks: Participation in this study is optional. No personally identifiable information will be published or distributed to any third parties.

Other people: No one else will have access to or use the data or results of this study.

Funding: The project is funded through a Google Faculty Research Award. Google has provided funding to support this project, but Google will not have access to any of the data collected during this study.

Invitation to Participate

Why: You are invited to participate in this research because you are a student or you work in the software industry.

How: To find potential participants, like you, we advertised for this study in online communities of software professionals.

Voluntary participation: Your participation is voluntary, and you may decline this invitation to participate.

If you are a student of the researchers we give our assurance that your participation or non-participation in this study will have no effect on your grades or relationship with the University and that you may contact your academic head should you feel that this assurance has not been met.

Project Procedures

If you choose to participate, you will be asked to complete an anonymous online questionnaire. In the questionnaire, we will ask you about your perceptions of code review comments and their impact. The expected time commitment from you for this is 15 minutes. You can choose to stop the questionnaire at any time and do not have to give a reason for this. Since the questionnaire is anonymous, completion of the questionnaire will be evidence of consent to participate.

Data Storage, Retention, Destruction and Future Use

How: Data will be collected through an online anonymous questionnaire.

Where: The responses to the questionnaire will be backed up and stored on the University of Auckland server.

How Long: The data will be stored indefinitely.

Destruction: After the minimum storage time (six years) has elapsed, if it is determined that the data is no longer needed, the data will be destroyed. Electronic data will be deleted.

Right to Withdraw from Participation

Participation in this research is entirely voluntary. If you do not wish to participate, you do not have to give a reason for this. If you choose to participate, you can withdraw at any time during the questionnaire by not submitting your responses without giving a reason. After the questionnaire, you will not be able to withdraw your data since the questionnaire is anonymous.

Anonymity and Confidentiality

The information collected from you may be published in an academic publications and/or student theses and project reports. Any publications resulting from this research will not identify you as a source of information. A copy of the research findings will be available to you if you wish. If you wish to receive a copy of the findings, please provide your email address after the completion of the questionnaire (email addresses will be collected and stored separately from all other questionnaire data to ensure all other collected data is anonymous). Your contact details will not be given to any third-parties. You can also contact any of the researchers listed below if you would like to obtain a copy of the findings.

CONTACT DETAILS AND APPROVAL

Investigator names and contact details	Head of Department name and contact details
Dr. Kelly Blincoe Department of Electrical, Computer, and Software Engineering k.blincoe@auckland.ac.nz 09 923 4715 Sanuri Gunawardena sgun571@aucklanduni.ac.nz Peter Devine pdev438@aucklanduni.ac.nz Isabelle Beaumont ibea707@aucklanduni.ac.nz Lola Piper Garden lgar863@aucklanduni.ac.nz	Kevin Sowerby Department of Electrical, Computer, and Software Engineering kw.sowerby@auckland.ac.nz 09 923 8191

For any queries regarding ethical concerns you may contact the Chair, The University of Auckland Human Participants Ethics Committee, The University of Auckland, Research Office, Private Bag 92019, Auckland 1142. Telephone 09-373-7599 ext. 83711. Email: humanethics@auckland.ac.nz

Approved by the University of Auckland Human Participants Ethics Committee on 27 July 2020 for three years. Reference Number 024385.