



Dublin City University
School of Computing
ETHICS COMMITTEE (SEC)

NOTIFICATION FORM FOR LOW-RISK
PROJECTS AT UNDERGRADUATE OR
TAUGHT MASTERS LEVELS

Please read the following information carefully before completing your application. Failure to adhere to these guidelines will make your submission ineligible for review.

1. Download this form, complete the appropriate fields, attach additional pages (e.g. plain language statement) as appropriate and save as a PDF file
2. Completed applications must be uploaded to your School of Computing GitLab repo, and must be located in "docs/ethics.pdf".
3. Your SUPERVISOR will then be notified automatically and must approve your approach initially.
4. Your application should consist of **one electronic file (PDF) only**. The completed application must include this form and also must incorporate all supplementary documentation, especially that being given to the proposed participants e.g consent forms, plain English language statement. It must be proofread and spell-checked before submission.
5. All sections of the application form must be answered as instructed and within the word limits given.
6. Your ethics approval submission will be circulated to the School's Research Ethics Committee and you will be notified if/when it is approved
7. All projects must have either a derogation from an ethics approval requirement (as determined by your supervisor) OR must have an approved ethics submission (this form), before work with human subjects commences.

Applications which do not adhere to these requirements will not be accepted for review and will require resubmission

Applications must be completed on this form; answers in the form of attachments will not be accepted, except where indicated. No hard copy applications will be accepted. **The project must not commence work with human subjects until written approval has been received from the School of Computing Ethics Committee (SEC).**

PROJECT TITLE	Typescript Assembly Simulator
PROJECT SUPERVISOR(S)	Stephen Blott
START AND END DATE	2020/02/24 - 2020/03/08

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Please ensure that **all** supplementary information is included in your application (in one electronic copy). If questionnaire or interview questions are submitted in draft form, please indicate this by putting (draft) after YES. A copy of the final documentation must be submitted for final approval when available.

My application has been collated as one electronic file which includes the following documentation:	INCLUDED (mark as YES)	NOT APPLICABLE (mark as N/A)
Bibliography		N/A
Recruitment advertisement (How are you getting volunteers?)		N/A
Plain language statement/Information statement	YES	
Informed consent form	YES	
Personal Data Security Schedule https://www.dcu.ie/sites/default/files/info/3_blank_data_security_schedule.xls		N/A
Evidence of external approvals related to the research		N/A
Questionnaire/Survey		N/A
Interview/Focus Group Questions	YES	
Debriefing material		N/A
Other (e.g. local government approval)		N/A

Please note:

- Any amendments to the original approved proposal must receive prior SCEC approval.
- As a condition of approval investigators are required to document and report immediately to SCEC any adverse events, any issues which might negatively impact on the conduct of the research and/or any complaint from a participant relating to their participation in the study

1. ADMINISTRATIVE DETAILS

Project Type (select one): Undergraduate Project – Final Year

Undergraduate Project – non-final Year

Taught Masters (Practicum)

X

(projects at other levels, e.g. PhD or research Masters, should be approved by the University's REC if necessary)

1.1 INVESTIGATOR CONTACT DETAILS

SUPERVISOR(S): *Your supervisor and other academic staff who are assisting, it should be clear who is the person who is carrying out the research procedures.*

NAME	SCHOOL/UNIT	EMAIL
Stephen Blott	School of Computing	stephen.blott@dcu.ie

STUDENT(S):

<i>NAME</i>	<i>SCHOOL/UNIT</i>	<i>EMAIL</i>
Conor McGovern	School of Computing	conor.mcgovern32@mail.dcu.ie
Sean Fradl	School of Computing	sean.fradl2@mail.dcu.ie

DECLARATION BY SUPERVISOR(S)

The information contained herein is, to the best of my knowledge and belief, accurate. I have read the University's current research ethics guidelines, and accept responsibility for the conduct of the procedures set out in the attached application in accordance with the form guidelines, the SCEC guidelines (<https://www.dcu.ie/researchsupport/researchethics.shtml>), the University's policy on Conflict of Interest, Code of Good Research Practice and any other condition laid down by the Dublin City University Research Ethics Committee. I have attempted to identify all risks related to the research that may arise in conducting this research and acknowledge my obligations and the rights of the participants.

If there exists any affiliation or financial interest for researcher(s) in this research or its outcomes or any other circumstances which might represent a perceived, potential or actual conflict of interest this should be declared in accordance with Dublin City University policy on Conflicts of Interest.

I and my co-investigators or supporting staff have the appropriate qualifications, experience and facilities to conduct the research set out in the attached application and to deal with any emergencies and contingencies related to the research that may arise.

Electronic Signature(s):

Supervisor(s): Stephen Blott (Signed by Sean Fradl on behalf with permission)

Print Name(s) here: **STEPHEN BLOTT**

Date: 21/02/2020

2. PROJECT OUTLINE

2.1 SIMPLE DESCRIPTION (Max. 300 words)

Please outline, in terms that any non-expert would understand, what your research project is about, including what participants will be required to do. Please explain any technical terms or discipline-specific phrases.

The research project aims to evaluate the user friendliness of an application being developed as part of a project. The application in question is "Typescript Assembly Simulator" (henceforth abbreviated to TASM), a web-based environment for simulating a simple microprocessor. The application is aimed at students learning assembly language program as part of a module, or in their own time. The project aims to improve upon existing microprocessor simulators, with a particular focus on cross-platform support, improving the user interface, and following modern accessibility guidelines. "Cross-platform support" refers to the ability to run the application on multiple operating systems (e.g. Microsoft Windows).

Participants will first be given a copy of the user manual. They will use this to discover the features provided by the simulator, and how to make use of them. After receiving the user manual, participants will be given a few minutes to get familiar with the controls of the simulator, and the features outlined in the user manual. Participants will then be asked to perform a series of tasks on the application. These tasks shall consist of small problems that can be solved by problems, see the appendix for an example of such a problem.

Following this, participants will be interviewed about their experience with using the application. This will consist primarily of straight-forward questions about the user interface and usability. It will also contain thought-provoking questions about the features of the simulator, with the aim of testing the effectiveness of the user manual.

2.2 AIMS OF AND JUSTIFICATION FOR THE RESEARCH (Max. 400 words)

State the aims and significance of the project. Where relevant, state the specific hypothesis to be tested. Please provide a brief description of background research, a justification as to why this research project should proceed in that context and an explanation of any expected benefits to the community. NB – all references cited should be listed in an attached bibliography.

The aim of this research is to evaluate the implementation and documentation of the TASM application. We aim to investigate whether or not the interface created for the application is both intuitive for new users, and accessible to users with disabilities that impact their ability to use web applications. We aim to investigate whether or not the feature set provided is sufficient for students learning how to write assembly language programs. We aim to investigate the effectiveness of the user manual, and other documentation provided to users.

This application is being developed with the intention of greatly improving upon the user experience of existing simulators. Thus, it is important that we prove that we have actually improved upon them, instead of regressing. It is also important that we investigate the effectiveness of any user documentation produced, because the application would be unusable without it.

There are a number of potential benefits that would come about as a result of this research. It will ensure that the application we have developed is of use to as diverse a group of users as possible.

2.3 DESCRIBE THE METHODOLOGY BEING USED TO ACHIEVE YOUR STATED AIMS

Provide an outline of the proposed method and state who is doing which task – include details of data collection techniques, the tasks participants will be asked to do, the estimated time commitment involved, and how data will be analysed. If the project includes any procedure which is beyond already established and accepted techniques please include a description of it. There should be enough detail provided to facilitate ethical review, but applicants are encouraged to keep it as succinct as possible.

Observation - Participants shall be observed reading through the user manual and getting comfortable in the environment. Participants shall also be observed when performing the task.
Interview - After the two tasks users shall be interviewed with a predefined set of questions.

After 10 people have completed the task and interview we shall summarise the data and publish it on our gitlab with the changes we feel we have to make to the software.

2.4 PARTICIPANT PROFILE

Provide the number, age range and source of participants. Please provide a justification of your proposed sample size. Please provide a justification for selecting a specific gender, age, or any other group if this is done in your project.

There will be 10 people asked to take part in the research. All participants will be students over the age of eighteen. Participants will primarily be sourced from the Redbrick society. We aim to focus on first year students because they will not have yet done assembly language programming.

2.4(a) PARTICIPANT VULNERABILITY

Are some or all of participants vulnerable in any way? (e.g by virtue of the group they belong to, people who have undergone traumatic or adverse emotional events, people with diminished cognitive ability, power relations between researchers and participants etc.)? If they are, state what this vulnerability (or vulnerabilities) is and justify why this research is being done with such participants.

We are not seeking vulnerable participants in any way.

2.4(b) CHILD PARTICIPANTS (anyone under 18 years old)

*If your participants include children, you **must** confirm that you are in compliance with the research specific guidelines as detailed in "Keeping Children Safe - Policies and Procedures supporting Child Protection at DCU" - available at: https://www4.dcu.ie/sites/default/files/policy/157%20-%20child_protection_handbook_rev1%282%29%281%29.pdf*

Please indicate your compliance with the following guidelines:	Mark here
We confirm that we have read and agree to act in accordance with the DCU Child Protection policy and procedures	N/A
We confirm that we have put in place safeguards for the children participating in the research	N/A
We confirm that we have supports in place for children who may disclose current or historical abuse (whether or not this is the focus of the research)	N/A

2.5 EXPLAIN HOW PARTICIPANTS ARE TO BE RECRUITED

Please provide specific details as to how you will be recruiting participants. How will people be informed that you are doing this research? How will they be approached and asked if they are willing to participate? If you are mailing or phoning people, please explain how you have obtained their names and contact details. If a recruitment advertisement is to be used, please ensure you attach a copy to this application.

We plan to collect users at random from school of computing labs and from Redbrick, DCU's computer networking society.

2.6 PLEASE EXPLAIN WHEN, HOW, WHERE, AND TO WHOM RESULTS WILL BE DISSEMINATED, INCLUDING WHETHER PARTICIPANTS WILL BE PROVIDED WITH ANY INFORMATION AS TO THE FINDINGS OR OUTCOMES OF THE PROJECT?

The results shall be summarised and made public. No identifiable information shall be published on participants. All participants shall remain anonymous. The summary shall be made readily available on the school of computing gitlab in which the main project is stored after all users have been interviewed.

2.7 ARE OTHER APPROVALS REQUIRED TO GAIN ACCESS TO ANOTHER LOCATION, ORGANISATION ETC.? (e.g. a School or company)

YES or NO

NO

(If YES, please specify from whom and attach a copy of the approval documentation. If this is not yet available, please explain when this will be obtained.)

3. RISK AND RISK MANAGEMENT

3.1 JUSTIFICATION OF STATED LEVEL OF RISK TO RESEARCH PARTICIPANTS

You must provide a justification for the stated level of risk, as indicated on the cover page of your application. Note that the level of risk may be influenced by the vulnerability of the research group, the methods employed and the nature of the research itself. For further information on risk levels, please refer to the Levels of Review information on the website: <https://www.dcu.ie/researchsupport/researchethics.shtml>

Users only have to perform actions in a web browser in an environment they are comfortable with. This does not differ in anyway to the day to day risks they face.

3.2 DOES THE RESEARCH INVOLVE:

	YES or NO
• use of a questionnaire? (attach copy)?	NO
interviews (attach interview questions)?	YES
• observation of participants without their knowledge?	NO
• participant observation (provide details in section 2)?	YES
• audio- or video-taping interviewees or events?	NO
• access to personal and/or confidential data (including student, patient or client data) without the participant's specific consent?	NO
• administration of any stimuli, tasks, investigations or procedures which may be experienced by participants as physically or mentally painful, stressful or unpleasant during or after the research process?	NO
• performance of any acts which might diminish the self-esteem of participants or cause them to experience embarrassment, regret or depression?	NO
• investigation of participants involved in illegal activities?	NO
• procedures that involve deception of participants?	NO
• administration of any substance or agent?	NO
• use of non-treatment of placebo control conditions?	NO
• collection of body tissues or fluid samples?	NO
• collection and/or testing of DNA samples?	NO
• participation in a clinical trial?	NO
• administration of ionising radiation to participants?	NO

3.3 POTENTIAL RISKS TO PARTICIPANTS AND RISK MANAGEMENT PROCEDURES

Identify, as far as possible, all potential risks to participants (physical, psychological, social, legal, economic, etc.), associated with the proposed research. Please explain what risk management procedures will be put in place to minimise these risks.

All participants shall perform the task and interview in a school of computing lab. Participants shall be made aware of the fire exit prior to performing the task and interview. We have not identified any other significant risks within school of computing labs.

3.4 ARE THERE LIKELY TO BE ANY BENEFITS (DIRECT OR INDIRECT) TO PARTICIPANTS FROM THIS RESEARCH?

YES or NO

NO

(If YES, provide details.)

3.5 ARE THERE ANY SPECIFIC RISKS TO RESEARCHERS?

Examples include use of dangerous materials, asking certain types of questions, research being undertaken in certain locations, researchers working alone in isolated areas, etc.

YES or NO

NO

(If YES, please describe and explain what risk management procedures will be put in place to minimise these risks.)

3.6 DEALING WITH ADVERSE/UNEXPECTED OUTCOMES

Please describe what measures/protocols you have put in place in the event that there are any unexpected outcomes or adverse effects to participants arising from involvement in the project.

N/A

3.7 HOW WILL THE CONDUCT OF THE PROJECT BE MONITORED?

Please explain how the supervisor will monitor the conduct of the project (especially where several people are involved in recruiting or interviewing, administering procedures, etc.) to ensure that it conforms with the procedures set out in this application

The supervisor shall review the questions for the interviews and the final summary prior to posting.

3.8 SUPPORT FOR PARTICIPANTS

Depending on risks to participants you may need to consider having additional support for participants during/after the study. Consider whether your project would require additional support, e.g., external counselling available to participants. Please advise what support will be available.

N/A

3.9 DO YOU PROPOSE TO OFFER PAYMENTS OR INCENTIVES TO PARTICIPANTS?

YES or NO

NO

(If YES, please provide further details.)

3.10 DO ANY OF THE RESEARCHERS ON THIS PROJECT HAVE A PERSONAL, PHILOSOPHICAL, FINANCIAL OR COMMERCIAL INTEREST IN ITS OUTCOME THAT MIGHT INFLUENCE THE INTEGRITY OF THE RESEARCH, OR BIAS THE CONDUCT OR REPORTING OF THE RESEARCH, OR UNDULY DELAY OR OTHERWISE AFFECT THEIR PUBLICATION?

YES or NO

NO

(If YES, please specify how this conflict of interest will be addressed.)

4. CONFIDENTIALITY/ANONYMITY

4.1 WILL THE IDENTITY OF THE PARTICIPANTS BE PROTECTED?

YES or NO

YES

(If NO, please explain why.)

IF YOU ANSWERED YES TO 4.1, PLEASE ANSWER THE FOLLOWING QUESTIONS:

4.2 HOW WILL THE ANONYMITY OF THE PARTICIPANTS BE RESPECTED?

Please bear in mind that where the sample size is very small, it may be impossible to guarantee anonymity/confidentiality of participant identity. Participants involved in such projects need to be advised of this limitation in the Plain Language Statement/Information Sheet. If you intend to fully anonymize the data, please provide details

We shall not be taking any personally identifiable information of participants and shall be removing any code for the tasks the participants have performed.

4.3 LEGAL LIMITATIONS TO DATA CONFIDENTIALITY

Participants need to be made aware that confidentiality of information provided cannot always be guaranteed by researchers and can only be protected within the limitations of the law - i.e., it is possible for data to be subject to subpoena, freedom of information claim or mandated reporting by some professions. This information should be included in your Plain Language Statement and Informed Consent Form. Depending on the research proposal and academic discipline, you may need to state additional specific limitations.

State how and where participants will be informed of these limitations

Participants shall be aware of these limitations through the plain language statement and again prior to us conducting interviews and additionally through the consent form.

5. PERSONAL DATA - COMPLIANCE WITH THE GENERAL DATA PROTECTION REGULATION

Personal data is data relating to a living individual (i.e. the 'Data Subject') who is, or can be, identified either from the data itself or from the data in conjunction with other information that is in, or is likely to come into, the possession of the 'Data Controller' (i.e. DCU and its constituent units e.g. research teams etc.). Further information on personal data is available from the DCU Data Protection Unit at <https://www.dcu.ie/ocoo/dp/guides.shtml>

5.1 IS PERSONAL DATA BEING PROCESSED AS PART OF THIS PROJECT?

YES or NO

NO

If YES, Please indicate your compliance with the following guidelines:	Mark here
We confirm that we have read and agree to act in accordance with DCU Data Protection Unit guidance and procedures regarding personal data	
We confirm that we have put in place a Personal Data Security Schedule (PDSS) for the project and have attached it to this application	

Please see the GDPR and the Research Ethics Process section of the [SCEC main webpage](#) for guidance

IF YOU ANSWERED YES TO 5.1, PLEASE ANSWER THE FOLLOWING QUESTIONS:

5.2 WHAT KIND OF PERSONAL DATA IS BEING PROCESSED?

Note special categories of personal data include health data, genetic data and/or data relating to ethnicity/race of participants, their sex lives and/or sexual orientation

5.3 WILL ANONYMISATION/PSEUDONYMISATION OF THE PERSONAL DATA BE UNDERTAKEN?

YES or NO

YES

(If NO, please explain why.)

6. DATA/SAMPLE STORAGE, SECURITY AND DISPOSAL

For the purpose of this section, "Data" includes that in a raw or processed state (e.g. interview audiotape, transcript or analysis). "Samples" include body fluids or tissue samples.

6.1 HOW AND WHERE WILL THE DATA/SAMPLES BE STORED?

Note that the SCEC recommends that all data be stored on campus – please justify any off-site storage.

Interview answers shall be stored in an online google document.

6.2 WHO WILL HAVE ACCESS TO DATA/SAMPLES?

If people other than the main researchers have access, please name who they are and explain for what purpose.

The researchers and supervisor shall have access to the data.

6.3 HOW LONG IS THE DATA TO BE HELD/RETAINED FOR?

Note that with very few exceptions **personal data** may not be retained indefinitely. It is up to the unit or research team to establish an upper retention limit for each category of personal data under its control.

Data shall be held until after the consultation period for students with faculty - June 20th 2020.

6.4 IF DATA/SAMPLES ARE TO BE DISPOSED OF, PLEASE EXPLAIN HOW, WHEN AND BY WHOM THIS WILL BE DONE?

Note that simply deleting files is not sufficiently secure. The additional steps to be taken to maintain data security should be given. **Personal data** must be disposed of in a safe and secure manner at the end of its retention period. If the data is stored in a: a) paper based format then shredding or disposal via a secure bin is recommended; or b) if it is stored in an electronic based format then deletion of the record or full anonymization of the data is recommended. If data/samples are NOT being disposed of, please justify this decision.

This shall be performed by Conor McGovern on June 20th 2020 through the Google docs platform.

7. PLAIN LANGUAGE STATEMENT (Attach to this document. Approx. 400 words)

A Plain Language Statement (PLS) should be used in all cases. This is written information in plain language that you will be providing to participants, outlining the nature of their involvement in the project and inviting their participation. The PLS should specifically describe what will be expected of participants, the risks and inconveniences for them, and other information relevant to their involvement. Please note that the language used must reflect the participant age group and corresponding comprehension level – if your participants have different comprehension levels (e.g. both adults and children) then separate forms should be prepared for each group. The PLS can be embedded in an email to which an online survey is attached, or handed/sent to individuals in advance of their consent being sought. See link to sample templates on the website: <https://www.dcu.ie/researchsupport/ethicsapproval.shtml>

PLEASE CONFIRM WHETHER THE FOLLOWING ISSUES HAVE BEEN ADDRESSED IN YOUR PLAIN LANGUAGE STATEMENT/ INFORMATION SHEET FOR PARTICIPANTS:

	YES or NO
Introductory Statement (Supervisor and student names, school, title of the research)	YES
What is this research about?	YES
Why is this research being conducted?	YES
What will happen if the person decides to participate in the research study?	YES
How will their privacy be protected?	YES
How will the data be used and subsequently disposed of?	YES
What are the legal limitations to data confidentiality?	YES
What are the benefits of taking part in the research study (if any)?	YES
What are the risks of taking part in the research study?	YES
Confirmation that participants can change their mind at any stage and withdraw from the study	YES
How will participants find out what happens with the project?	YES
Contact details for further information (including SCEC contact details)	YES
Details relating to GDPR Compliance if Personal Data is being sought	YES

If any of these issues are marked NO, please justify their exclusion:

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8. INFORMED CONSENT FORM (Attach to this document. Approx. 300 words)

In most cases where interviews or focus groups are taking place, an Informed Consent Form is required. This is an important document requiring participants to indicate their consent to participate in the study, and give their signature. If your participants are minors (under 18), it is best practice to provide them with an assent form, while their parents/guardians will be given the Informed Consent Form. In cases where an anonymous questionnaire is being used, it is enough to include a tick box in the questionnaire (underneath the information section for participant), where participants can indicate their consent. See link to sample templates on the website: <https://www.dcu.ie/researchsupport/ethicsapproval.shtml>

NB – IF AN INFORMED CONSENT FORM IS NOT BEING USED, THE REASON FOR THIS MUST BE JUSTIFIED HERE.



DCU - Plain Language Statement

TASM User Feedback Research

We, Sean Fradl and Conor McGovern are undertaking research into the quality of our application, named TASM, that has been designed as part of our third year project for computer applications. This research is thereby under the school of computing within DCU.

Your involvement with this research shall involve taking 5 minutes to read the user manual and become comfortable with the TASM web application environment. You shall then be asked to perform a simple coding task in which you shall write TASM code which shall take around 10 minutes. You shall then be asked some prior prepared questions in an informal interview style which shall take another 5 minutes.

These tasks are not a test of your ability and we shall not be recording any information on your performance of the coding task. During this period you shall be observed and notes shall be taken.

We shall not be collecting any personally identifiable information on you while you conduct the task or during the interview. Within all documents you shall be referred to as a participant.

Any information we shall collect on you shall remain confidential within the research group although this cannot always be guaranteed and can only be protected within the limitations of the law - i.e. it is possible for data to be subject to subpoena, freedom of information claim, etc.

Involvement within this research is completely voluntary and you may withdraw at any point. There are no risks nor are there any benefits to you from your involvement.

All information collected shall be deleted by June 20th 2020. A summary of this information on the research as a whole shall still be readily available. The information we collect on you shall be used as part of this summary. This summary shall be publically available for you to access through the public repo (search “tasm”) on the DCU school of computing gitlab. Alternatively you may email us.

You may contact either of the researchers as provided by the details below.

Sean Fradl - sean.fradl2@mail.dcu.ie

Conor McGovern - conor.mcGovern32@mail.dcu.ie

**If participants have concerns about this study and wish to contact an independent person, please contact: The Secretary, Dublin City University Research Ethics Committee, c/o Research and Innovation Support, Dublin City University, Dublin 9.
Tel 01-7008000, e-mail rec@dcu.ie**

TASM User Feedback – Informed Consent Form

We, Sean Fradl and Conor McGovern are undertaking research into the quality of our application, named TASM, that has been designed as part of our third year project for computer applications. This research is thereby under the school of computing within DCU.

Participant – please complete the following (Mark Yes or No for each question)

I have read the Plain Language Statement (or had it read to me)	Yes	No
I understand the information provided	Yes	No
I have had an opportunity to ask questions and discuss this study	Yes	No
I have received satisfactory answers to all my questions	Yes	No
I have been made aware that my involvement in this study is completely voluntary and I can withdraw from it at any time with no repercussions	Yes	No
I am aware that there are no noticable benefits and no potential risks in the participation of this study.	Yes	No
I am aware that no findings in this study will be used for any other purpose other than those outlined in the Plain Language Statement and no data pertaining to me will be kept for other uses.	Yes	No

Signature:

I have read and understood the information in this form. My questions and concerns have been answered by the researchers, and I have a copy of this consent form. Therefore, I consent to take part in this research project

Participants Signature:

Name in Block Capitals:

Witness:

Date:

Sample Tasks

For 1st Years:

- Write a basic fibonacci program.

For 2nd Years:

- Write out characters to the virtual display using the virtual keyboard and interrupts.

Interview Questions

1. How difficult did you find the task?
 - a. What was the primary issue you faced?
2. What did you feel was the most difficult thing to accomplish through the user interface?
 - a. What would you change within the UI?
 - b. Are there any small features you would like included within the program?
3. Did you read the user manual within the application?
 - a. If Yes
 - i. Which section?
 - ii. Did you find the language of any section you read too complicated?
 - iii. Did the section you read help you accomplish the task?
 - b. If No
 - i. Did you spot where the help section is located within the application?