



Dublin City University
School of Computing

APPLICATION FOR APPROVAL OF AN UNDERGRADUATE OR TAUGHT MASTERS PROJECT INVOLVING **HUMAN PARTICIPANTS**

Please read the following information carefully before completing and submitting your application.

- ☐ **Applications must be submitted via the project dashboard**
- ☐ **Student applicants must include their supervisor as the Principal Investigator (PI).** The form should be checked, approved and signed in digital form by the supervisor in advance of submission.
- ☐ **The application should consist of one electronic file only, in PDF format,** with an electronic signature from the PI (the project supervisor) and yourselves, the students. The completed application must incorporate all supplementary documentation, especially those being given to the proposed participants.
- ☐ **All sections of the application form must be answered as instructed and within the word limits given.**

Applications must be completed on the form; answers in the form of attachments will not be accepted, except where indicated. No hardcopy applications will be accepted. **The project must not commence until approval has been received from the School Research Ethics Committee.**

PROJECT TITLE	CA4000 - Final Year Project
PRINCIPAL INVESTIGATOR(S) <i>The Principal Investigator is the project supervisor and s/he has primary responsibility for the project.</i>	Cormac Duggan Sean Hammond Graham Healy
START AND END DATE	11/01/21 30/09/21
STUDENT NAME(S), COURSE AND YEAR (E.G. EC4)	Cormac Duggan, Sean Hammond CASE4
LEVEL OF RISK <i>Please confirm that this project requires notification only</i>	Notification

1. ADMINISTRATIVE DETAILS

1.1 WILL THE PROJECT BE UNDERTAKEN ON-SITE AT DUBLIN CITY UNIVERSITY?

YES or NO

No

If NO, state details of the off-campus location – provide details of the approval to gain access to that location in section 2.7.

Research will be completed remotely in accordance with covid-19 government guidelines.

DECLARATION BY PRINCIPAL INVESTIGATOR / SUPERVISOR

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 REC 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 project that may arise in conducting this project and acknowledge my obligations and the rights of the participants.

If there exists any affiliation or financial interest for researcher(s) in this project 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 and/or supporting staff have the appropriate qualifications, experience and facilities to conduct the project set out in the attached application and to deal with any emergencies and contingencies related to the project that may arise. Supervisor(s) signature(s) are required as evidence that they have read and approve the submission.

Please note:

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

Electronic Signature(s):

Principal investigator / Supervisor: Graham Healy

Print Name(s) here: Graham Healy

Date: 27/01/2021

I/We, the students on this proposal, have read and approve this submission

Student(s) signature(s): Sean Hammond, Cormac Duggan

Print Name(s) here: Sean Hammond, Cormac Duggan

Date: 27/01/2021

2. PROJECT OUTLINE

2.1 LAY DESCRIPTION, AIMS & JUSTIFICATION, METHODOLOGY (up to 100 words)

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

Our project's aim is to develop a desktop application that allows users to record EEG/EOG data while watching a video. This data will then be used to detect moments where the user gained or lost focus. This data will be combined with multiple other pieces of data from other users to better detect key moments in a given video. Users will be required to make a user account to use the software, for which they will be required to provide an email address.

2.2 PARTICIPANT PROFILE

List and very briefly describe each participant group where applicable. For instance, participant group 1 will consist of..., participant group 2 will consist of... etc. Provide the number, age range and source of participants. Please provide a justification of your proposed sample size.

The participant group will consist of 5 university students aged 18 to 22. Participants will be recruited via email advertisement.

2.3 PARTICIPANT RECRUITMENT

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 (Approx. 100 words).

An email will be sent out to multiple class mailing lists to recruit participants. They will be able to sign up to participate in the study by sending an email notifying us of their interest. We will then request a shipping address in order to send on the headset and charging cable. Their address information will not be saved or recorded for later use.

2.4I IS IT LIKELY THAT ANY PARTICIPANTS COULD BE CONSIDERED POTENTIALLY VULNERABLE?

Are some or all 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 students and participants etc.)?

YES or NO

No

If Yes, please state and describe what this vulnerability (or vulnerabilities) is and justify why this research is being done with such participants

N/A

2.5 WILL THE IDENTITY OF THE PARTICIPANTS BE PROTECTED?

YES or NO

Yes

If NO, please explain why

N/A

IF YOU ANSWERED YES TO 2.5, PLEASE ANSWER THE FOLLOWING QUESTION:

2.6 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

The anonymity of participants will be maintained by purging any email correspondence with the participants. Anonymous surveys will be taken to gain insights to possible design flaws related to working with the software and hardware, however no information related to a participant's identity will be recorded. Once the project is completed and graded, all recorded data will be destroyed.

2.7 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 project proposal and academic discipline, you may need to state additional specific limitations.

State how and where participants will be informed of these limitations

Participants will be made aware of the legal limitations of data confidentiality through the plain language statement.

2.8(a) 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 e-mailing, 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.

Participants will be recruited via emails to suitable mailing lists, explaining what would be asked of them and how they can inquire further.

2.8(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 project	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 project)	N/A

2.9 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?

Results of findings will be shared with project team members, the project supervisor and project examiners in order to improve the project's usability.

2.10 ARE OTHER APPROVALS REQUIRED TO GAIN ACCESS TO ANOTHER LOCATION, ORGANISATION, SCHOOL ETC.?

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.

N/A

3. RISK AND RISK MANAGEMENT

3.1 EXPLAIN AND JUSTIFY THE STATED LEVEL OF RISK TO PARTICIPANTS

You must provide a justification that the stated level of risk and its corresponding level of review is notification only and not Full Committee or Expedited, 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 project 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>

There is no more risk than daily life to participants in this project, as they will only be using a small consumer grade headset which is relatively intuitive software.
To note, no vulnerable participants will be used as part of this research.

3.2 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 project. Will your project involve deception, investigation of participants involved in illegal activities, performance of any acts which might diminish the self-esteem of participants or cause them to experience embarrassment, regret or depression? Please explain what risk management procedures will be put in place to minimise these risks.

There are no foreseeable risks associated with this project higher than daily life to participants.

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

YES or NO

No

If YES, provide details

N/A

3.4 ARE THERE ANY SPECIFIC RISKS TO YOURSELVES IN CARRYING OUT THIS PROJECT?

Examples include use of dangerous materials, asking certain types of questions, The project 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

N/A

3.5 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.

- The project supervisor will be kept notified of progress and issues.
- Participants will be able to opt out at any stage.
- Participants will be provided with contact information for an independent person should any issues arise with the research. (Martin Ward, martin.ward@dcu.ie, 01 700 7476)

3.6 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

3.7 HOW WILL THE CONDUCT OF THE PROJECT BE MONITORED?

Please explain how the principal investigator 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. In the case of student projects please give details of how the supervisor(s) will monitor the conduct of the project.

Supervisor will be periodically kept up to date at each stage of the project.

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

YES or NO

No

If YES, please provide further details

N/A

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

YES or NO

No

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

N/A

4. PERSONAL DATA - COMPLIANCE WITH THE GENERAL DATA PROTECTION REGULATION (GDPR)

Applicant declaration:

0	I understand that the proposed project, as set out in this form, is to be carried out by me in my capacity as a student of Dublin City University.	YES or NO	Yes
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What does “Personal Data” mean?

Personal data is any information about a living person, where that person is identified or could be identified, either from the data itself or when it is combined with other data.

Personal Data is defined in [Article 4\(1\) of the GDPR](#) and can include, but is not limited to the following: hard-copy information (e.g. files, records); electronic information (e.g. databases, online survey returns); written information; consent declarations, interview notes, still or moving images; audio & visual recordings; IP addresses; an individual's handwriting; clinical or medical data; diagnostic or other clinical imaging; etc.

Further information is available from the [DCU Data Protection Unit](#)

4.1 ASSESSING DATA PROTECTION RISKS & REQUIREMENTS

Note 1: What does ‘Minor’ and ‘Vulnerable Individual’ mean?

A **minor** is defined as an individual below 18 years of age. Where the processing relates to ‘electronic marketing’ the age limit is reduced to 16 years. A **vulnerable individual** may be anyone who is unable to consent to, or oppose, the processing of his or her personal data for any reason. Both of these are of particular importance if the project compels the provision of data from individuals.

Note 2: What does ‘large scale processing’ mean?

The GDPR does not define what constitutes large-scale. EU guidance recommends that the following factors, in particular, be considered when determining whether the processing is carried out on a large scale:

- the number of data subjects (either as a specific number or proportion of the relevant population);
- the volume of data and/or the range of different data items being processed;
- the duration, or permanence, of the data processing activity; &
- the geographical extent of the processing activity.

Examples of large-scale processing include, but are not limited to:

- processing of patient data in the regular course of business by a hospital;
- processing of travel data of individuals using a public transport system (e.g. tracking via travel cards);
- processing of real time geo-location data of customers of an international fast food chain for statistical purposes by a processor specialised in these activities;
- processing of customer data in the regular course of business by an insurance company or a bank;
- processing of personal data for behavioural advertising by a search engine; &
- processing of data (content, traffic, location) by telephone or internet service providers.

Examples that do **not** constitute large-scale processing include, but are not limited to:

- processing of patient data by an individual physician; and
- processing of personal data relating to criminal convictions and offences by an individual lawyer.

A. Applicant Data Protection Assessment Questionnaire – Part I

1	Does your project include living human subjects?	YES or NO	Yes
2	Does your project include the use of any information (i.e. ‘Personal Data’) relating to an identified, or identifiable, person?	YES or NO	Yes

3	Does your project include the use of identifiers such as: a name, an identification number, location data, an online identifier, or other similar identifiers?	YES or NO	Yes
4	Does your project include the use of Personal Data specific to the physical, physiological, genetic, mental, economic, cultural or social identity of any living individual?	YES or NO	No

If you answered 'Yes' to one or more of Questions 1-4 above, please continue to Part II below (otherwise proceed to the next section of this form). You should also consult with your Supervisor / Principal Investigator to ensure adequate Data Protection compliance measures are in place.

B. Applicant Data Protection Assessment Questionnaire – Part II			
5(a)	Does your project include the use of Personal Data of individuals which reveals any of the attributes or characteristics below? If 'Yes,' please indicate which will be used in your project (tick all that apply):	YES or NO	No
	<i>racial or ethnic origin</i>	YES or NO
	<i>political opinions</i>	YES or NO
	<i>religious or philosophical beliefs</i>	YES or NO
	<i>trade union membership</i>	YES or NO
	<i>genetic data</i>	YES or NO
	<i>biometric data</i>	YES or NO
	<i>data concerning health</i>	YES or NO
	<i>data concerning a natural person's sex life or sexual orientation</i>	YES or NO
5(b)	Does your project include the use of Personal Data relating to minors or vulnerable individuals? (<i>See Note 1, below</i>)	YES or NO	No
6	Does your project include the use of Personal Data of individuals relating to their criminal convictions and/or offences?	YES or NO	No
7	Does your project include large-scale processing of personal data relating to living individuals? <i>This may include: a wide range or large volume of personal data; processing which takes place over a large geographical area; or where a large number of people are affected (e.g. over 100 individuals); or where the processing is extensive or has long-lasting effects. (See Note 2, below)</i>	YES or NO	No
8	Does your project include any form of automated processing of personal data, used to evaluate certain personal aspects relating to a living individual? <i>In particular, to analyse or predict aspects concerning that person's performance at work, economic situation, health, personal preferences, interests, reliability, behaviour, location or movements</i>	YES or NO	Yes
9	Does your project include any partners which are third parties outside of DCU? <i>e.g. Research partners, third party software providers or other providers such as translation or transcription services, etc.</i>	YES or NO	No

10 (a)	Does your project involve the sharing or processing of Personal Data outside the EU or the EEA? <i>i.e. the EEA is the European Economic Area (the EU plus Norway, Liechtenstein and Iceland)</i>	YES or NO	No
10 (b)	If 'Yes', please state which non-EU or EEA country is involved:		
11	Does the project require the matching or combining of separate datasets of information on individuals in a way that would exceed their reasonable expectations of privacy? <i>An example would be combining mobile phone location data along with any other dataset to identify individuals.</i>	YES or NO	No

If you answered 'Yes' to one or more of these questions, you should make sure that you have strong and secure data privacy risk mitigation safeguards in place, discuss these with your supervisor.

4.2 WILL ANONYMISATION OR PSEUDONYMISATION OF THE PERSONAL DATA, WHERE APPLICABLE, BE UNDERTAKEN?

Anonymisation is the process of removing personal identifiers, both direct and indirect, that may lead to an individual being identified. **Pseudonymisation** is the processing of personal data in such a manner that the personal data can no longer be attributed to a specific living individual without the use of additional information, provided that such additional information is kept separately and is subject to technical and organisational measures to ensure its security.

YES or NO
Yes

If YES, please explain below the methods by which you intend to anonymise/pseudonymise the personal data:

Participants will be assigned an ID number and will only be referred to by this ID once data has been collected. The EEG/EOG data that will be collected is not itself personally identifiable, so once the email correspondence is deleted, the participant will not be identifiable using the captured data.

5. DATA/SAMPLE STORAGE, SECURITY AND DISPOSAL

For the purpose of this section the term 'Data' includes personal data that is in a raw or a processed state (e.g. interview audiotape, transcript or analysis, etc.). The term 'Samples' include body fluids and/or tissue samples.

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

DCU recommends that any data stored electronically offsite should utilise the DCU Google Drive. Alternative offsite storage will need to be justified and must meet data protection and GDPR compliance requirements.

Spreadsheet file of Questionnaire answers - DCU Google Drive
EOG/EEG Data - DCU Google Drive

5.2 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.

Project assessors will have access to aggregated results.

5.3 HOW LONG IS THE DATA TO BE HELD OR RETAINED?

Note that, with very few exceptions, **Personal Data** may not be retained indefinitely. It is up to the project team to establish an upper retention limit for each category of Personal Data used within the project and to ensure it is applied at the expiry of that limit. The School of Computing Research Ethics Committee recommends that Personal Data is retained until after the resit Pab for the current academic year.

Data will only be retained until the project is completed and graded to allow for the Autumn progression and awards board. (September 2021)

5.4 IF YOUR PROJECT DOES INVOLVE THE USE OF PERSONAL DATA THEN WILL THIS BE USED AT A LATER DATE FOR THE PURPOSE OF PUBLICATION OF THE RESULTS OF THE PROJECT?

YES or NO
No

Where it is intended that the personal data used in the project will be used at a later date for the purposes of publication please explain how consent to do so will be obtained.

N/A

5.5 IF THE DATA/SAMPLES ARE TO BE DISPOSED OF AT THE END OF THE PROJECT 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) in an electronic-based format, then deletion of the record or the full anonymization of the data is recommended. If data/samples are **not** being disposed of, please justify that intention.

How will the data/samples be disposed of? Please describe the means by which the personal data will be deleted or destroyed. This includes personal data held in hard copy and digital formats.	Data will be deleted entirely from the designated google drive folder.
By whom will the data/samples be disposed? Please indicate the designated team member(s) with responsibility for deletion and/or destruction of the research project's personal data.	Sean Hammond

6. PLAIN LANGUAGE STATEMENT *(Attach to this document. Up to a max of 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:

Note that this list is a check-list of all of the things that you should include in your plain language statement, if they are relevant (they are in most cases). In the earlier sections of this form you have already written the text that can be used to create your plain language statement. References to the relevant sections are provided on each line.

	YES or NO
Introductory Statement (Student(s) and supervisor names, school, title of the project) [Table, p 1]	Yes
What is this project about? [section 2.1]	Yes
Why is this project being conducted? [section 2.1]	Yes
What will the participant be expected to do/have to do if they decide to participate in the study?[section 2.1]	Yes
How will their privacy be protected? [section 2.5, section 2.6]	Yes
How will the data be used and subsequently disposed of? [section 5.3]	Yes
What are the legal limitations to data confidentiality? [section 2.7]	Yes
Are there any benefits of taking part in the study? [section 3.3]	Yes
Are there any risks of taking part in the study? [section 3.2]	Yes
Confirmation that participants can change their mind at any stage and withdraw from the study [see plain language statement template, appendix 1]	Yes
How will participants find out what happens with the project? [section 2.9]	Yes
Contact details for further information [see plain language statement template, appendix 1]	Yes

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

N/A

7. INFORMED CONSENT FORM *(Attach to this document. Approx. 300 words, see appendices 2 and 3 for templates.)*

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. In cases where an anonymous questionnaire is being used, it is not enough to include a tick box in the questionnaire. Participants should indicate their consent to each aspect of the research in a staged manner by checking mandatory checkboxes.

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.

N/A

8. ASSENT FORM & PLAIN LANGUAGE STATEMENT FOR CHILDREN *(Attach to this document.)*

A child specific Plain Language Statement (PLS) should be used in project where children will be involved. The PLS must be written in a way that is understandable for children within your targeted age group. It also must state, in plain language, 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. In addition, child participants should also be provided with an Assent Form. Parents/guardians will be provided with the Informed Consent Form, but each child should provide assent

before taking part in the project. The Assent Form needs to be understandable to the age-group you are targeting. See link to sample templates on the website: <https://www.dcu.ie/researchsupport/researchethics.shtml>

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

N/A

9. SUBMISSION CHECKLIST *(Attach to this document)*

Please confirm that all supplementary information is included in your application (in 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 PDF file which includes the following documentation:	INCLUDED (mark as YES)	NOT APPLICABLE (mark as N/A)
Recruitment advertisement [consistent with section 2.3]	Yes	
Plain language statement/Information Statement [see section 6 and appendix 1]	Yes	
Informed Consent form [see appendices 2 and 3]	Yes	
Informed Assent form (children only)		N/A
Evidence of external approvals related to the research [see sections 1.1 and 2.10]		N/A
Questionnaire/Survey	Yes (Draft)	
Interview/Focus Group Questions		N/A

Plain Language Statement
CA4000 Final Year Project
School of Engineering and Computing

Researchers: Sean Hammond, Cormac Duggan

Supervisor: Graham Healy

Course: CASE4

Data Controller: DCU

Data Processor(s): Sean Hammond, Cormac Duggan

Data Protection Officer: Martin Ward

The goal of this project is to develop a desktop application that would allow students to record brainwave signal data (EEG/EOG data, this relates to electrical activity generated by the brain and eyes that may indicate attention) while watching a video lecture to determine when they gained or lost focus as part of our final year project for Computer Applications and Software Engineering.

You are being invited to participate in the accessibility testing of this software to ensure that it is entirely usable and intuitive. Should you accept, you will be asked to provide shipping details to allow us to send you an EEG headset to enable you to use the software. Once you receive the device, you will then be expected to perform a number of tasks with the software with both researchers on a voice call. These tasks include registering a user account, pairing the headset to the software, and recording your EEG data while watching a short video. Afterwards, you will then be asked to complete a short questionnaire pertaining to your experience with the software.

Provided shipping information will be disposed of once the package has successfully been delivered, and data provided during account registration will be wiped once testing has been completed. All data gathered from the questionnaire, and any remaining undisposed data will be disposed of once the project submission date is reached, on the 9th of May 2021. Data will be stored securely and anonymously in a DCU google drive, and will only be shared with the primary researchers, project supervisor and project examiners. EEG/EOG data cannot be used to identify the individual who recorded the data, and is therefore inherently anonymous.

There are no direct benefits for participating in this study. There is no more risk above daily life to participants. Participation in this study is entirely voluntary, and participants may withdraw at any time. Should this happen, involvement will be ended immediately, and no further data will be collected. Please note that previously collected data may still be used and processed, and will be disposed of at the appropriate time indicated above. Be aware that all participants have the right to lodge a complaint with the Irish Data Protection Commission should they feel the need to do so.

Should you have any further questions about the nature of the study or the project, please contact one of the primary researchers at sean.hammond2@mail.dcu.ie or cormac.duggan27@mail.dcu.ie. You may also contact the project supervisor at ghealy@computing.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

Recruitment Advertisement

Dear Students,

My name is Sean Hammond and I and my partner, Cormac Duggan (cormac.duggan27@mail.dcu.ie) are currently developing a desktop application that would allow students to record brainwave signal data (EEG/EOG data, this relates to electrical activity generated by the brain and eyes that may indicate attention) while watching a lecture to determine when they gained or lost focus, as part of our final year project for Computer Applications and Software Engineering.

In order to ensure that our software is both accessible and user friendly, we are recruiting up to 5 volunteers to assist us with testing the software. Should you apply, you would be asked to provide an address so that we could send the EEG/EOG headset to you. You would then be asked to perform a number of steps including registering an account with an email address, connecting the headset to your computer, and using the headset to record EEG/EOG data for a period of up to 5 minutes, while watching a sample video. You will then be asked to complete a short questionnaire to report how you felt about using the software, and if any issues arose during testing.

Please note that during this study all data will be stored as securely as possible and will be disposed of once the project is completed. This includes personal data used to create an account with the software and all responses to the questionnaire.

If you would like to inquire further about the project or how to volunteer, please contact me via this email address. If you would like to hear about the progress of the project or the results once completed, please contact me to inform me so.

Looking forward to hearing from you,
Sean Hammond
CASE4
17374356

Informed Consent Form

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CA4000 Final Year Project, DCU School of Computing.
For more information, contact Sean Hammond at sean.hammond2@mail.dcu.ie or Cormac Duggan at Cormac.Duggan27@mail.dcu.ie.
Project supervisor: Graham Healy, ghealy@computing.dcu.ie.
Informed consent form for accessibility testing volunteer.

This study aims to identify any improvements that could be made to the desktop application being developed for this project in relation to usability and accessibility.

*Required

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 understand the information provided in relation to data protection. *

- ☐ Yes
☐ No

I have received satisfactory answers to all of my questions. *

- ☐ Yes
☐ No

I understand I may withdraw from the research study at any point. *

- ☐ Yes
☐ No

I have read and understand the arrangements to be made to protect confidentiality of data, including that confidentiality of information provided is subject to legal limitations. *

- ☐ Yes
☐ No

I have read and understand confirmations relating to any other relevant information as indicated in the PLS. *

- ☐ Yes
☐ No

I consent to participate in this research study. *

- ☐ Yes
☐ No

Questionnaire

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Questionnaire on project usability and accessibility.

*Required

Were you able to successfully connect the supplied headset to your computer? *

- ☐ Yes
- ☐ No
- ☐ Yes, but with some difficulty.

If you answered "No" or "Yes, but with some difficulty" please explain the issues you faced.

Your answer

Were you able to successfully register a user account on the application? *

- ☐ Yes
- ☐ No
- ☐ Yes, but with difficulty

If you answered "No" or "Yes, but with some difficulty" please explain the issues you faced.

Your answer

Were you able to successfully record a session using the headset and software? *

- ☐ Yes
- ☐ No
- ☐ Yes, but with some difficulty.

If you answered "No" or "Yes, but with some difficulty" please explain the issues you faced.

Your answer

Do you have any health issues that would impair your ability to view text or colour on a screen to a reasonable degree? If yes, did these issues prevent you from successfully completing any tasks related to this study?

Your answer

Do you have any other suggestions to improve the usability or accessibility of this project?

Your answer