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| **Physical Sciences & Engineering**  **Ethics Review and Approval Form**  **for UG & PGT students** |  |

**IMPORTANT NOTE: Research projects cannot begin until ethical approval has been granted.**

Please complete the relevant sections of this form if, after filling out the relevant ethical review checklist (Annex A), you have identified a potential ethical issue. **Please submit a copy of the completed Annex A as part of your ethics application.**

If required, contact your Project Supervisor to obtain further guidance prior to the completion of this form.

Please refer to the ethical review procedures outlined in the Project Guidelines or contact the Course or Programme Coordinator for further advice on the application process.

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| **Name:**  **ID number:** | Maryam Bala  52214333 |
| **School:**  **Department or discipline:** | Natural and Computing Science  Computing Science |
| **Programme (e.g., BEng, MSc):** | MSc Artificial Intelligence |
| **Project Title:**  **Course Number and Name:** | **Analysing Patterns of Repetition in Child-Adult Dialogues**  CS5917: MSc Project in Artificial Intelligence |
| **Names of other individuals involved in the research/project?** |  |
| **Name and email address of main supervisor:** | Arabella J. Sinclair ([arabella.sinclair@abdn.ac.uk](mailto:arabella.sinclair@abdn.ac.uk)) |
| **Signature of main supervisor:** |  |
| **Application date:** | 08/02/2024 |

**Please note:**

1. Research involving NHS staff, patients, facilities and premises is subject to ethical review by the NHS [North of Scotland Research Ethics Service](https://www.hra.nhs.uk/approvals-amendments/what-approvals-do-i-need/). This includes research involving individuals when their status as NHS staff or patients is relevant to the research, even when a medical condition is not the subject of the research. Research involving adults who do not have the capacity to consent may also be subject to these ethical review procedures. Further guidance is available at [researchgovernance@abdn.ac.uk](mailto:researchgovernance@abdn.ac.uk)
2. Research involving animal and biological materials may be subject to additional approval requirements. Please contact your supervisor for further guidance.
3. Research involving the collection of genetic resources (organisms, microorganisms, DNA, RNA, proteins, small molecules) from signatories to the Convention on Biodiversity/Nagoya Protocol requires a formal agreement to be in place before this research can begin. Contact your [Research Development Executive](https://www.abdn.ac.uk/staffnet/research/contact-us/contact-us-10570.php#faq2) for further guidance.

**CHECKLIST**

The purpose of this checklist is to make sure no information has been inadvertently left out and to allow reviewers to assess the application more quickly. **If you do not complete the checklist and attach a completed Annex A (and any other documentation where required), the application will be returned to you, hence delaying the approval process.**

I confirm that if my project changes significantly then I will notify the Course/Programme Coordinator. YES

I have **attached** a completed checklist (Annex A). YES

I confirm that I have discussed this application with my supervisor. YES

This project requires me to **travel out of the UK** NO

*If YES, please provide the following confirmation:-*

* I will comply with the requirements of the University’s [Overseas Travel Policy](https://www.abdn.ac.uk/staffnet/working-here/travel-overseas-2130.php), including obtaining permission to travel (where required by the policy), completion of a [risk assessment](https://www.abdn.ac.uk/staffnet/working-here/insurance-367.php#field-trip-and-travel-risk-assessment) and will obtain [University travel insurance cover](https://www.abdn.ac.uk/staffnet/working-here/insurance-367.php#panel6305). YES/NO

*Other Attachments (delete YES/NO/NOT APPLICABLE as appropriate)*:

I have attached a Participant Information Sheet. YES

I have attached a Consent Form YES

I have attached a schedule of questions for surveys and/or interviews. YES

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| **Project description**  *Please attach a project descriptor or summary document (where available)* | The project aims to investigate patterns of repetition in child-adult dialogues, focusing on feedback strategies employed by caregivers. Through the analysis of linguistic data collected from child-adult interactions, the study seeks to understand how feedback influences language development in early childhood. The research involves the utilization of machine learning techniques, particularly Large Language Models (LLMs), to detect and generate feedback in dialogues. |

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| **Project start date and duration**  (i.e. the **particular piece of work for which you are applying for ethical approval** [not your overall programme of research]) | 22-01-2024 to 03-05-2024 |

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| **Project methodology** | The project methodology involves a multi-stage approach to analyse patterns of repetition in child-adult dialogues and evaluate feedback strategies. Initially, data will be collected from the CHILDES Corpora Database, focusing on dialogues involving children aged 1 - 4 years. The dataset will then undergo pre-processing to extract relevant features and identify instances of feedback. LLMs, will be employed to detect and generate feedback in the dialogues.  Human evaluators will be recruited to participate in the evaluation phase. They will assess the quality and appropriateness of the model-generated feedback through qualitative analysis, providing valuable insights into its effectiveness.  The surveys will be sent on Microsoft forms and evaluation will be done based on relevant metrics.  An overview of the sample questions that will be given to participants has been attached for reference. The survey will take about 10 – 15 mins to complete. About 20 participants are to be recruited for this exercise. The sample space from which the participants are to be drawn are the acquaintances of the researcher i.e., friends, family, and classmates. |

**Section 1: Research projects involving human participants (not NHS staff or patients)**

*If you answered `No’ to Q1 and Q2 then omit Q3 – 18 and proceed straight to Q19.*

**Recruitment Procedures**

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|  |  | **Yes** | **No** |
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| **1** | Does your project involve human participants?  This includes use of surveys, questionnaires, on-line surveys and tests, focus groups and workshops where human participants provide information or data to inform the research. | **Yes** |  |
| **2** | (a) Does your project involve human remains?  (b) If so, does your work conform with the Historic Environment Scotland guidelines? |  | **No** |
| **3** | Does your project involve people less than 18 years of age[[1]](#footnote-1)? |  | **No** |
| **4** | Does your project involve people with learning or communication difficulties? |  | **No** |
| **5** | Is your project likely to involve people involved in illegal activities? |  | **No** |
| **6** | Does your project involve people belonging to a vulnerable group, other than those listed above? |  | **No** |
| **7** | Does your project involve people with whom you have, or are likely to have, a working or professional relationship: for instance, staff or students of the university, professional colleagues or clients? | **Yes** |  |
| **8** | Does your project involve people who do not have English as their first language? | **Yes** |  |
| **9** | Does your project require the recording of audio or video of participants or of others not involved in the research? |  | **No** |
| **10** | Do you plan to conceal your own identity during the course of your project? |  | **No** |

*If you answered ‘****Yes’*** *to any of the above questions, please provide further details.*

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| The project involves human participants in the evaluation phase. Human evaluators will be recruited to assess the quality and appropriateness of the model-generated feedback. |

*If you answered ‘****Yes’*** *to* ***Q1*** *then you must provide a Participant Information Sheet and a Consent Form. For web-based research, screenshots of the appropriate web pages suffice.*

*If your project involves surveys or interviews then you must provide a schedule of questions.*

*If you answered ‘****Yes’*** *to* ***Q3, Q4*** *or* ***Q6*** *then you will need to apply for disclosure through Disclosure Scotland if you intend to be alone with a research participant or have to take sole responsibility for the participants at any point during your research activity.*

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| **Consent Procedures** |  | **Yes** | **No** |
| **11** | Do you have set procedures that you intend to use for obtaining informed consent from all participants, including (where appropriate) parental consent for children? | **Yes** |  |
| **12** | Will you tell participants that their participation is voluntary? | **Yes** |  |
| **13** | Will you obtain written consent for participation, including for audio and/or video recording? | **Yes** |  |
| **14** | Will you tell participants that they may withdraw from the research at any time and for any reason? | **Yes** |  |
| **15** | Will you give potential participants a period of time to consider participation? | **Yes** |  |
| **16** | Does your project involve concealment or deliberately misleading participants? |  | **No** |

*If you answered ‘****Yes’*** *to any of the above questions, please provide further details.*

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| Participants will be provided with a clear and concise information sheet outlining the purpose, procedures, risks, and benefits of the research. The information sheet will also specify the voluntary nature of participation, the right to withdraw from the research at any time and for any reason, and the assurance of confidentiality and anonymity.  The project will not be using participants who are minors. Written consent will be obtained from all participants. Participants will be given adequate time to review the information provided, consider their participation, and ask any questions they may have before consenting to participate. |

**Possible Harm to Participants**

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|  |  | **Yes** | **No** |
| **17** | Does the research have the potential to cause distress or discomfort to participants or any member of the research team? |  | **No** |
| **18** | Is there any realistic risk of any participants experiencing a detriment to their interests as a result of participation? |  | **No** |

*If you answered ‘****Yes’*** *to either of the above questions, please provide further details. Explain how this risk was assessed and how you propose to manage it.*

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**Section 2: Data protection, handling and storage**

**IMPORTANT NOTE:**

The General Data Protection Regulation imposes a number of obligations for the use of **personal data** (defined as any information relating to an identified or identifiable living person) or including the use of personal data in research.

If you are using personal data, you should consider whether your research requires a Data Protection Impact Assessment (DPIA) and complies with the University Data Protection policy.

If you are, you now need to see the [Data Protection Checklist for Researchers](https://www.abdn.ac.uk/toolkit/services/information-governance/)[[2]](#footnote-2) for guidance.

If you then feel that a DPIA may be required or you need data protection advice, then you should contact the Data Protection Officer [dpa@abdn.ac.uk](mailto:dpa@abdn.ac.uk).

Please provide the following confirmation:

*I have read the above guidance and have met the relevant data protection obligations.*

**Please tick the box to confirm.**

**In addition, you should also check the requirements for a Data Management Plan (DMP) in the** [**Research Data Management Policy**](https://www.abdn.ac.uk/staffnet/documents/policy-zone-research-and-knowledge-exchange/Research%20Data%20Management%20Policy.pdf) **and** [**Guidance**](https://www.abdn.ac.uk/staffnet/documents/policy-zone-research-and-knowledge-exchange/Research%20Data%20Management%20Guidance.pdf)**.**

**Once checked, please confirm the requirement by ticking one of the following:**

***No requirement for DMP***

***DMP required and this is attached***

**Please see** [**here**](https://www.abdn.ac.uk/toolkit/systems/data-managment-plan/) **for guidance on creating a DMP.  For further support, contact** [**digitalresearch@abdn.ac.uk**](mailto:digitalresearch@abdn.ac.uk)

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|  |  | **Yes** | **No** |
| **19** | (a) Will any non-anonymised and/or personalised data be generated and/or used?  (b) Will you use an existing dataset in your research?  (c) If ‘yes’, do you have permission to do so? | **Yes**  **Yes** | **No** |
| **20** | Will any data be stored (temporarily or permanently) anywhere other than on password-protected University computers or servers? |  | **No** |
| **21** | Will you gain access to sensitive[[3]](#footnote-3) data about living individuals or organisations that is not already publicly available elsewhere?  If ‘yes’, will you gain the consent of the individuals concerned? |  | **No** |
| **22** | Does your project require access to personal data about participants from other parties (e.g., teachers, employers), databanks or files?  *If ‘yes’, please explain in the comments section below how you will gain the consent of these participants.* |  | **No** |
| **23** | Does the project involve collecting personal data from websites or from social media (e.g., Facebook, Twitter)? |  | **No** |
| **24** | Will the data be stored, collected or accessed from:   * outside the UK? * outside the EU? |  | **No** |
| **25** | Is the data likely to contain material that is indecent, offensive, defamatory, threatening, discriminatory or extremist?  *If yes, see* [*here*](http://www.abdn.ac.uk/staffnet/documents/Prevent_Researchers_Guidance.pdf) *for an explanation of the obligations of the researcher and the university under the Prevent duty.* |  | **No** |
| **26** | Are there any contractual conditions attached to working with or storing the data? (E.g., an HSCIC data sharing agreement.) |  | **No** |
| **27** | Could working with this data damage the University’s reputation? (E.g., bad press coverage, public protest.) |  | **No** |
| **28** | Could working with this data cause an increased risk of attack (cyber- or otherwise) against the University? (E.g., from pressure groups.) |  | **No** |

*For further advice on Data Protection and GDPR, please refer to* [www.abdn.ac.uk/dataprotection](http://www.abdn.ac.uk/dataprotection)**.**

*If you answered ‘****Yes’****, to any of the above questions, please provide further details. Explain how you intend to ensure that data is stored securely and in line with the requirements of the Data Protection Act and funding bodies (if applicable). Give specific consideration to whether any non-anonymised and/or personalised data will be generated and/or stored and what precautions you will put in place regarding access.*

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| **Description of the existing dataset**: The dataset used in this research is sourced from the CHILDES Corpus database, which is a comprehensive collection of child-adult dialogues encompassing various linguistic contexts and developmental stages. It contains transcripts of naturalistic interactions between children and caregivers, providing valuable insights into language acquisition and developmental processes. The dataset is publicly available for research purposes, and its use is governed by the terms and conditions specified by the CHILDES project. Compliance with these terms ensures ethical and legal use of the dataset in the research project. |

**Section 3: Research involving possible harm to the environment**

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|  |  | **Yes** | **No** |
| **29** | Does the project have the potential to cause environmental damage or harm?  *This includes the natural environment but also buildings and structures created by people, especially ones of historical or archaeological importance.* |  | **No** |

*If you answered ‘****Yes’*** *to the above question, please provide further details. Explain how this risk was assessed and how you propose to manage it. Say whether relevant guidelines exist in your discipline, and whether you intend to follow them.*

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**Section 4: Research which may have an adverse impact on national security**

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|  |  | **Yes** | **No** |
| **30** | Does your project give rise to a realistic risk to the national security of any country? |  | **No** |

*If you answered ‘****Yes’*** *to the above question, please provide further details. Explain**how this risk was assessed and how you propose to manage it.*

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**Section 5: Funding and conflict of interest**

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|  |  | **Yes** | **No** |
| **31** | Is your project funded by the university or an outside organisation, or have you applied for funding? |  | **No** |
| **32** | Is there any potential conflict of interest between research funder and researchers or participants and researchers which may potentially affect the research outcome or the dissemination of research findings? |  | **No** |
| **33** | Might the project lead to financial gain to funders, investigators or participants? |  | **No** |

*If you answered ‘****Yes’*** *to any of the above questions, please provide further details****.***  *Explain any potential conflict of interest and how you propose to manage it.*

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**Section 6: Collection of genetic resources**

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|  |  | **Yes** | **No** |
| **34** | Does the project involve the collection of genetic resources (organisms, microorganisms, DNA, RNA, proteins, small molecules) from signatories to the Convention on Biodiversity/Nagoya Protocol? |  | **No** |

*If you answered ‘****Yes’*** *to the above question, then a relevant agreement must be in place before the research can begin. This agreement must provide prior informed consent with mutually agreed terms and the must be in keeping with the Convention on Biodiversity/Nagoya Protocol and be obtained via the national focal point of the provider country. Please provide further details below* ***of*** *how you propose to arrange the agreement. Indicate the need for confidentiality where appropriate.*

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*For any contractual or intellectual property questions, please contact the Business Development team in Research & Innovation (*[*june.middleton@abdn.ac.uk*](mailto:june.middleton@abdn.ac.uk)*).*

**Incomplete or incorrectly completed forms will be returned to the applicant, delaying the process of obtaining ethics approval. Make sure you have completed the checklist on page 2.**

**FOR UG AND PGT STUDENTS: Please refer to the ethical review procedures outlined in your Project Guidelines or contact your Course / Programme Coordinator for further advice.**

1. It is University policy that children under the age of 16 should also have parental consent to participate in research projects, in addition to consent obtained from the child. Research participants aged 16 and over in Scotland are not required to have parental consent to participate in research projects. However in most countries it is 18 years and in these circumstances, parental consent will also be required for participants aged 17 or under. If you are working with research participants between the ages of 16 – 18 it is essential that you check the local requirements regarding parental consent. [↑](#footnote-ref-1)
2. Click on ‘Guides’ to find the checklist [↑](#footnote-ref-2)
3. Sensitive data includes data that relates to racial or ethnic origin, political opinions, religious beliefs, trade union membership, physical or mental health, sexual life, actual and alleged offences. [↑](#footnote-ref-3)