Participant Information Sheet

**Researcher:**
The primary investigator of this research is Vera Su. She is an honours student studying education in creative computing at ANU. The supervisor for this project is Ben Swift. He is a multidisciplinary researcher at the School of Computing at ANU, senior lecturer and director of the c/c/c studio.

**Project Title:** Using music computing to boost self-efficacy and interest in computing among music students.

**General Outline of the Project:**
- **Description and Methodology:** Music computing is an approach to teaching the fundamentals of computing/coding through the creative process of making music and visual art. This project will host a series of workshops teaching creative computing for students at an ACT high school level or higher. This study will consist of three main methods: surveys, workshops, and behavioural notes. Additionally, participants may be invited for a follow-up interview to discuss their survey answers.

- **Participants:** The estimated sample size will range from 20-50 participants over the span of one year. The workshops will be open to the public and participation in the research is optional.

- **Use of Data and Feedback:**
  Participation in any of the research methods is optional. You will be able to indicate which methods you give consent to in the consent form which will be provided to you. Qualitative data from follow-up interviews and quantitative data from surveys will be analysed alongside behavioural notes taken during the intervention (behavioural notes are a written record of the way you interact with the activity). If you are selected for a follow-up interview, the interview will be recorded. There may also be audio recordings of any musical artefacts you create. The analysis of these results will be presented in publications, papers, conference presentations, journals and/or reports assessed under coursework at the ANU. The contact information of the investigators will be made available to participants in this document.

Should the identified stakeholders (e.g., parents or participants) of this research request access to the results, the findings will be summarized in an electronic report which will be sent to the stakeholders via email.

- **Voluntary Participation & Withdrawal:** Your participation in the research is voluntary. You are free to withdraw from participation at any stage of the investigation prior to the date when results will be finalised for publication with no negative consequences. If you do not want to answer a question, you can do so without any justification. Should you wish to correct any erroneous sections of data which have been provided by you or collected about you, you are welcome to get in touch with the investigators. They will arrange a time for you to oversee only the sections of data you have provided and will make the necessary corrections in your presence. If you decide you want to stop participating in this research, you can choose to either delete all data you have provided or allow us to keep using any data you have provided until the point your involvement ceases. If you choose to remove all previous responses from consideration in the research, please get in touch with one of the investigators and we will remove your responses in your presence.
• **What does participation in the research entail?** If you choose to participate, you will be expected to partake in various creative coding activities. These activities will require you to interact with different types of tools for teaching creative code (i.e. BBC Microbit and MakeCode) and complete some surveys. Follow-up interviews will be conducted via Zoom and stored on secure ANU CECS servers; if you are under the age of 18, your parent/carer should be present for this. You may additionally allow us to have notes taken about the way you interact with the learning tools.

• **Location and Duration:** All in-person workshops will be conducted in ANU, the duration of these workshops will a one-off, 3.5-hour workshop. Follow-up interviews will be conducted through Zoom, the video conferencing software, at a time agreed upon by the participant, their parent/carer if applicable, and the researcher.

• **Remuneration:** There will be no remuneration for participation.

• **Risks:** This research is relatively low risk. All data you provide will be de-identified and results will be presented in aggregate. If an activity receives a small number of participants, aggregation of the results will be difficult and individual responses might be recognisable, however identifying information such as names will be removed.

The line of questioning in any interview-based research method will be generally looking at your approach to learning. If the questions make you feel uncomfortable, you can take a break or stop answering the questions at any time. The contact details of counselling services have been provided in this document.

• **Benefits:** By participating in this research, you will be able to aid the development of computing education and enable evidence-based decision making in the delivery of computing coursework and the infrastructure design for teaching computing. We will be teaching students creative computing through workshops which will be delivered for free.

**Exclusion criteria:**

• **Participant Limitation:** The activities will introduce foundational computing concepts. For this reason, students that have taken any university-level computer science classes will not be participants in the project. It is not vital to have any experience in creative practices or in computing to participate.

**Confidentiality:**

• **Confidentiality:** Participant confidentiality will be protected as far as law allows. Only the acting investigators for each activity will have access to the data associated to that activity (not all investigators will be involved in each activity). They will also be the only members who can edit the collected data (should participants want to correct erroneous data or withdraw data they submitted). The raw data will be identifiable and will be stored on a secure ANU CECS server.
Privacy Notice:
In collecting your personal information within this research, the ANU must comply with the Privacy Act 1988. The ANU Privacy Policy is available at https://policies.anu.edu.au/ppl/document/ANUP_010007 and it contains information about how a person can:

- Access or seek correction to their personal information;
- Complain about a breach of an Australian Privacy Principle by ANU, and how ANU will handle the complaint.

Data Storage:
- **Where:** All data collected during this study will be stored on secure ANU CECS servers.
- **How long:** Data will be stored for a duration of 5 years from the date of submission of the final publication to arise from this research.

Queries and Concerns:
- **Contact Details for More Information:** Any queries or concerns regarding participation should be direct to Vera Su (u6379580@anu.edu.au), or her supervisor Ben Swift (ben.swift@anu.edu.au).
- **Contact Details if in Distress:** If participants feel any distress from any questions asked, please contact Lifeline (13 11 14) or Kids Helpline (1800 55 1800)

Ethics Committee Clearance:
The ethical aspects of this research have been approved by the ANU Human Research Ethics Committee (Protocol 2021/089). If you have any concerns or complaints about how this research has been conducted, please contact:

Ethics Manager
The ANU Human Research Ethics Committee
The Australian National University
Telephone: +61 2 6125 3427
Email: Human.Ethics Officer@anu.edu.au
Dear Students,

I am writing to invite you to participate in this study which aims to improve students’ self-efficacy and interest in computing by running a workshop focused on using computing to create music.

The following information has been provided to assist you in making an informed, voluntary decision to participate in the research project.

1. **The purpose and methods of research**
   This project aims to investigate the effectiveness of a targeted workshop on students’ interest and self-efficacy in computing. The music computing workshops will be delivered by the researcher.

   If you choose to consent to participating in the study, you will be asked to complete surveys at the beginning and end of the workshops. You may also receive an invitation to a recorded, follow-up video interview where a parent/carer will be asked to be present. Throughout the workshop, the researcher will take notes on how your group is interacting with the activity.

   The data collected by these activities will be used to measure effectiveness of the music computing workshops.

2. **Voluntary or involuntary participation and any alternatives to participation**
   Participation in the study is voluntary. If you choose not to participate in the study, you will still be permitted to attend the workshops, however your data will not be collected or used as part of the study.

3. **Any payments or other incentives for participation**
   None.
4. **Duration of research and demands on participants**
The research project will take place on July 1 or July 2, 2021. There will be a total of one, half-day workshop.

5. **Risks, implications, and potential benefits to participants**
This research is relatively low risk. All data will be de-identified, and results presented in aggregate.

6. **Right to withdraw from further participation at any stage and the possibility to withdraw data**
Participation in the research is voluntary and participants may, without any penalty, decline to take part, withdraw at any time, or refuse to answer a question without providing an explanation.

7. **What participants are expected or required to do**
Students participating in the study will complete a survey at the beginning and end of the workshops. They will also partake in various creative coding activities which will require participants to interact with BBC Microbit and MakeCode. Students may also be invited to an interview conducted via Zoom to discuss their responses in the survey.

8. **Confidentiality and privacy protection e.g., will research results identify individual participants: schools, students, and teachers**
Only the researchers will have access to the individual information provided by participants. The raw data will be identifiable and stored on a secure ANU College of Engineering and Computer Science servers.

9. **Dissemination or publication of research results**
Research from the study may be used to inform articles, conference presentations, teacher professional learning and other scholarly work. Any disseminated or published results will be de-identified.

10. **Provision of research results, findings, or reports to participants**
You can request access to results and findings, which will be summarized in an electronic report sent via email.

11. **Any expected benefits to the wider community**
By participating in this research, you will be able to aid the development of computing education and enable evidence-based decision making in the delivery of computing coursework and the infrastructure design for teaching computing.
Dear Parent/Carer,

I am writing to invite your child to participate in this study which aims to improve students’ self-efficacy and interest in computing by running a workshop focused on using computing to create music.

The following information has been provided to assist you in making an informed, voluntary decision to participate in the research project.

1. The purpose and methods of research
This project aims to investigate the effectiveness of a targeted workshop on students’ interest and self-efficacy in computing. The music computing workshops will be delivered by the researcher.

If you choose to consent to your child participating in the study, they will also complete surveys aimed at determining their level of interest and self-efficacy at the beginning and end of the workshops. Some students may receive an invitation to a recorded, follow-up interview to be conducted via Zoom where a parent/carer will be asked to be present.

Other data that will be gathered during the study includes written notes on the way students are interacting with the activities. The data collected by these activities will be used to measure effectiveness of the music computing workshops.

2. Voluntary or involuntary participation and any alternatives to participation
Participation in the study is voluntary. Students not participating in the study will still be permitted to attend the workshops, however their data will not be collected or used as part of the study.
3. Any payments or other incentives for participation
   None.

4. Duration of research and demands on participants
   The research project will take place on July 1 or July 21, 2021. There will be a total of one, half-day workshop.

5. Risks, implications, and potential benefits to participants
   This research is relatively low risk. All data will be de-identified, and results presented in aggregate. If an activity receives a small number of participants, aggregation of results will be difficult and individual responses may be recognisable, however identifying information such as names will be removed.

6. Right to withdraw from further participation at any stage and the possibility to withdraw data
   Participation in the research is completely voluntary and participants may, without any penalty, decline to take part, withdraw at any time, or refuse to answer a question without providing an explanation. If you choose to withdraw consent to your child’s participation in this research, you can choose to withdraw all data that have been collected or allow us to continue using data until the point your child’s involvement ceases.

   If participants would like to correct or withdraw consent for any sections of data that have been collected, you may get in touch with the investigators on behalf of your child. They will arrange a time for you to oversee the sections of data collected of your child and make necessary corrections or deletions in your presence. This may occur at any stage of the investigation prior to the date when results are finalised for publication.

7. What participants are expected or required to do
   Students participating in the study will complete a survey at the beginning and end of the workshops. They will also partake in various creative coding activities which will require participants to interact with BBC Microbit and MakeCode. Students may also be invited to an interview conducted via Zoom to discuss their responses in the survey.

8. Confidentiality and privacy protection e.g., will research results identify individual participants: schools, students, and teachers
   Only the researchers will have access to the individual information provided by participants. The raw data will be identifiable and stored on a secure ANU College of Engineering and Computer Science (CECS) servers.

9. Dissemination or publication of research results
Research from the study may be used to inform articles, conference presentations, teacher professional learning and other scholarly work. Any disseminated or published results will be de-identified.

10. Provision of research results, findings, or reports to participants
You can request access to results and findings, which will be summarized in an electronic report sent via email.

11. Any expected benefits to the wider community
By participating in this research, you will be able to aid the development of computing education and enable evidence-based decision making in the delivery of computing coursework and the infrastructure design for teaching computing.

12. Contact details of the researcher and supervisor

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<thead>
<tr>
<th>Researcher</th>
<th>Supervisor</th>
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<tbody>
<tr>
<td>Vera Su</td>
<td>Ben Swift</td>
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<tr>
<td><a href="mailto:u6379580@anu.edu.au">u6379580@anu.edu.au</a></td>
<td>02 6125 7027</td>
</tr>
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<td></td>
<td><a href="mailto:ben.swift@anu.edu.au">ben.swift@anu.edu.au</a></td>
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13. Lodging complaints (dispute resolution) and handling process
Queries or concerns regarding the research can be directed to the researcher and/or supervisor. Their contact details are found above. You can also contact the ANU Human Research Ethics Committee:

Ethics Manager
The ANU Human Research Ethics Committee
Australian National University
02 6125 3427
human.ethics.officer@anu.edu.au
14. **Any other relevant information, including research-specific information**

The information collected will be stored on secure ANU CECS servers for a duration of 5 years from the date of submission of the final publication.

The data collected as part of this study may be used in future research projects in collaboration with other researchers. Any data used in this way will be de-identified prior to distribution.

The ethical aspects of this research have been approved by the ANU Human Research Ethics Committee (Protocol 2021/089).

In collecting your personal information, the ANU must comply with the Privacy Act 1988. The ANU Privacy Policy is available at [https://policies.anu.edu.au/ppl/document/ANUP_010007](https://policies.anu.edu.au/ppl/document/ANUP_010007) and contains information about how a person can:

- Access or seek corrections to their personal information
- Complain about a breach of an Australian Privacy Principle by ANU, and how ANU will handle the complaint

Thank you for your interest in this research project. Please feel free to contact the researchers if you would like to discuss further. This information letter is for you to keep.

Yours sincerely,

Vera Su