Faculty of Engineering Research Ethics Committee

University of BRISTOL

APPLICATION FOR RESEARCH ETHICS APPROVAL

Reference Number (for office use):

APPLICATION FOR RESEARCH ETHICS APPROVAL

1. Title of the research:

An Interactive Data-led Augmentation of Climbing Training - Final Analysis

2. Name of Applicant, with their job title:

Luke Storry, Student

07805925658

3. Name of Supervisor (if applicant is a postgraduate or undergraduate student), with their job title:

Peter Bennett, Teaching Fellow in human-computer interaction at the Bristol Interaction & Graphics Lab.

4. Other investigator(s) involved, with their job title:

-

5. Source of funding and grant code:

N/A - MEng Masters Individual Project

6. Does this source of funding place any restrictions on public dissemination (publication, etc.) of the results of the research? If yes, please say what these are.

N/A

7. Background and aims of the research:

Maximum of 300 words. Provide sufficient information to allow the significance of the project to be assessed. You should include one or two references to show that the background is based upon a literature search and that your proposed project will provide new information. The aim(s) of your research should be clearly stated.

Climbing is a popular and growing sport, especially indoors, where climbers can train on man-made routes using artificial holds. Both strength and good technique is required to successfully reach the top of a climb, and often climbing coaches work to improve technique so less strength is required, yet it is often difficult to see and suggest improvements without years of coaching experience.

 Various aspects of adding computer-interaction to climbing have been studied in recent years, and there is a space for a tool to aid learning/intermediate climbers, both with trickier climbs and to improve their own technique.

APPLICATION FOR RESEARCH ETHICS APPROVAL

I have conducted a user-centered design to find requirements for, and to build, a lightweight application for intermediate climbers. Initial surveys and feedback from prototypes have been completed with a previous Ethics Approval. Now I intend on holding testing sessions and semi-structured interviews with five student climbers to assess the potential impact that using the app has / could have on their climbing sessions and training.

8. Who will be recruited to participate in the research?

Adults (18-30) with varying levels of climbing ability, most of whom will be students and members of a university climbing club.

9. How many participants will be recruited?

5-6

10. How will the participants be recruited?

Five participants in the previous component of my research have indicated interest in taking part in this latter stage of analysis.

11. Are there any potential participants who will be excluded. If so, what are the exclusion criteria?

No. If anyone else reaches out (via email or on previous recruitment posts) they will be included.

12. Where will the research take place?

The testing of the prototype devices will take place at both the Bloc and Redpoint climbing centres.

Interviews will take place at a university study space, wherever is most convenient for the participant.

13. How will informed consent be obtained from all participants or their parents/guardians prior to individuals entering the research study?

Participants will be given an information sheet (attached) to read, and a consent form (attached) to sign, prior to being given the product.

14. Will the study involve actively deceiving the participants?

No

15. Will participants be made aware they can drop out of the research study at any time without having to give a reason for doing so?

Yes, this is stated clearly in the information sheet and consent form.

APPLICATION FOR RESEARCH ETHICS APPROVAL

16. Outline the design of the research study and list the procedures to which the participants will be subjected, the anticipated testing time and any treatments administered.

1) Participants will be given a phone (or the option to use their own) with the AugKlimb app installed.
2) The participants will be free to use the app during a half-hour climbing session
3) A recorded interview will take place, asking the participants about their views on the app.
   a) The following questions will form a basis for the interview, but due to its semi-structured nature, further questions that outline interesting areas of discussion may be asked:
      i) What do your climbing sessions usually include?
      ii) Would you class your sessions as fun, training, or a mixture?
      iii) How do you think using the app impacted your climbing session today?
      iv) (On the second session) How did using the app today compare to using the app on the previous session?
      v) What was your favourite aspect?
      vi) What was your least favourite aspect?
      vii) Are you likely to continue using the app in the future?
      viii) Do you think the app caused or helped improve your climbing?
      ix) Do you see the app as a training tool or as gamification of your climbs, or both?
      x) What feature(s) would you like to see extended or added?
      xi) Any further points you'd like to make?
4) This recording will then be transcribed, and the original audio file securely erased.

17. Describe potential risks to participants (physical, psychological, legal, social) arising from these procedures.

The research will not involve risks beyond those normally encountered by the participants when they go climbing in their life outside research. Bouldering is a sport that can come with some risks, but users will be told to climb well within their ability level, put their own judgement above the information or scoring systems displayed by the device under test. This is very clearly stated in both the information sheet and consent form.

18. How will participants be debriefed?

Subjects may contact the investigators after the study if they wish to know the outcome.

19. Is any reimbursement of expenses or other payment to be made to participants?

No

20. Will personal data, beyond those recorded on the consent form, be used in the research?

APPLICATION FOR RESEARCH ETHICS APPROVAL

Interviews will be recorded, and the original audio recording of the interview will be deleted after a transcript has been made. A participant number will be attached to the transcript file, and quotes will be used in my dissertation. The App can be used to record accelerometer data, video recordings and climbing logs, but after the training sessions that will be securely wiped.

A list of participant names linking them to their participant number will be securely kept in an encypted file, to allow for the potential withdrawal of all data from that participant if requested.

21. Will the participants be audio-recorded or video-recorded?

Yes, the semi-structured interviews will be audio-recorded, transcribed and then recordings deleted.

22. When will this research be completed? (Give a date)

10/5/19

23. How will the data be made available at the end of the project? (You must declare your level of access)

Closed – this covers data that is not available for sharing (except by regulators) because of ethical, IPR, prior exclusive agreements or other constraints. This should only be assigned if you have got prior agreement from the funder that they are willing to allow the data to be completely closed.

24. Any other relevant information

Signature of Applicant: _(signature)_   **Date: 29/04/19**

Signature of Supervisor (if applicable):   **Date:**

Form last modified August 2013