Application 4: Dynamics of Hand Object Interaction

Important note: This is a real application which has been doctored for the purposes of training. Information has been removed from the application and the application has been anonymised. The UREC does not endorse this application as a model.

The application, shown on the following pages, was discussed at the workshop. A summary of the key points raised by the participants, the UREC and the original ethics reviewers follows (this is not an exhaustive list):

- The application provides minimal information and is poorly written – whilst it was noted that it is important to be proportionate in the review of undergraduate/postgraduate-taught student projects and to bear in mind the educational value of the research activity, the level of detail provided was considered too minimal to make an informed judgement (e.g. there is no information about where the research would be carried out);

- The aims of the research were felt to be rather random and not sufficiently justified;

- The researcher plans to ask friends to participate in the research; this could result in individuals feeling that they are obliged to participate;

- The application displayed a lack of awareness of safety issues, stating that the research would be no more risky than playing a standard hockey game (e.g. what would happen if a participant injured themselves or if someone was hit by a ball?);

- The information sheet needed to include more detail in terms of the kinds of questions that participants would be asked;

- The application states that confidentiality of participants will be maintained but does not explain how;

- The researcher appears to be making unrealistic expectations of the participants, with large numbers of balls to be hit;

- The answer to question A12 states that recorded media will not be used, when the application clearly states that a camera will be recording footage. This raises further issues that have not been considered (e.g. confidentiality).
Complete this form if you are an undergraduate or a postgraduate-taught student who plans to undertake a research project which requires ethics approval via the University Ethics Review Procedure. If you are a member of staff or a postgraduate research student, this is the wrong form.

Your Supervisor decides if ethics approval is required and, if required, which ethics review procedure (e.g. University, NHS, Alternative) applies.

If the University’s procedure applies, your Supervisor decides if your proposed project should be classed as ‘low risk’ or potentially ‘high risk’.

PLEASE NOTE THAT YOUR DEPARTMENT MAY USE A VARIATION OF THIS FORM: PLEASE CHECK WITH THE ETHICS ADMINISTRATOR IN YOUR DEPARTMENT

This form should be accompanied, where appropriate, by all Information Sheets/Covering Letters/Written Scripts which you propose to use to inform the prospective participants about the proposed research, and/or by a Consent Form where you need to use one.

Further guidance on how to apply is at:
www.shef.ac.uk/ris/other/gov-ethics/ethicspolicy/approval-procedure/review-procedure

Guidance on the possible routes for obtaining ethics approval (i.e. on the University Ethics Review Procedure, the NHS procedure and the Social Care Research Ethics Committee, and the Alternative procedure) is at:
www.shef.ac.uk/ris/other/gov-ethics/ethicspolicy/approval-procedure/ethics-approval

Once you have completed this research ethics application form in full, and other documents where appropriate, check that your name, the title of your research project and the date is contained in the footer of each page.

If your supervisor has classed the project as ‘low risk’:
• Email this form, together with other documents where applicable, to your Supervisor; and
• Sign and date Annex 1 of this form and provide a paper copy to your Supervisor.

Important Note for Supervisors:

Following the ethics review the Supervisor must provide the academic department’s Ethics Administrator with a copy of the ‘low risk’ research ethics application that s/he reviewed and a completed Ethics Reviewer’s Comments Form indicating the ethics decision that s/he took in relation to it. The Ethics Reviewer’s Comments Form can be downloaded here: www.shef.ac.uk/ris/other/gov-ethics/ethicspolicy/further-guidance/universityprocedure2/reviewersc. The Ethics Administrator reserves the right to consult the Chair of the academic department’s Ethics Review Panel (or equivalent) of s/he has concerns that projects classed as low risk should in fact have been classed as potentially high risk.
If your supervisor has classed the project as potentially ‘high risk’:

- Email this form, together with other documents where applicable, to your department’s Ethics Administrator; and
- Ask your Supervisor to sign and date Annex 2 of this form and provide a paper copy of it to your department’s Ethics Administrator.

Ethics Administrators are listed at: [www.sheffield.ac.uk/polopoly_fs/1.99105!/file/Ethics-Administrators.pdf](http://www.sheffield.ac.uk/polopoly_fs/1.99105!/file/Ethics-Administrators.pdf)

I confirm that I have read the current version of the University of Sheffield ‘Ethics Policy Governing Research Involving Human Participants, Personal Data and Human Tissue’, as shown on the University’s research ethics website at: [www.shef.ac.uk/ris/other/gov-ethics/ethicspolicy](http://www.shef.ac.uk/ris/other/gov-ethics/ethicspolicy)

A1. Title of Research Project: Dynamics of Hand Object Interaction

A2. Name of Student

Name: XXXX  Department: XXXX
Email: XXXX  Telephone: XXXX

Name of Supervisor: XXXX

A3. Proposed Project Duration:

Start date: XXXX  End date: XXXX

A4. Mark ‘X’ in one or more of the following boxes if your research:

- [ ] involves adults with mental incapacity or mental illness
- [ ] involves prisoners or others in custodial care (e.g. young offenders)
- [ ] involves children or young people aged under 18 years
- [ ] involves using samples of human biological material collected before for another purpose
- [ ] involves taking new samples of human biological material (e.g. blood, tissue) *
- [ ] involves testing a medicinal product *
- [ ] involves taking new samples of human biological material (e.g. blood, tissue) *
- [ ] involves additional radiation above that required for clinical care *
- [ ] involves investigating a medical device *
- [ ] is social care research
- [ ] is ESRC funded

* If you have marked boxes marked * then you also need to obtain confirmation that appropriate University insurance is in place. The procedure for doing so is entirely by email. Please send an email addressed to insurance@shef.ac.uk and request a copy of the ‘Clinical Trial Insurance Application Form’.
It is recommended that you familiarise yourself with the University’s Ethics Policy Governing Research Involving Human Participants, Personal Data and Human Tissue before completing the following questions. Please note that if you provide sufficient information about the research (what you intend to do, how it will be carried out and how you intend to minimise any risks), this will help the ethics reviewers to make an informed judgement quickly without having to ask for further details.

A5. Briefly summarise:
   i. The project’s aims and objectives:
      (this must be in language comprehensible to a lay person)

To calibrate the magnitude and frequency of vibrations produced by a hockey shot. Comparing a variety of sticks. Compare the head speed versus the ball speed of a shot with the different sticks, to get an understanding of which stick converts the energy from the swing of the shot into ball speed most efficiently.

   ii. The project’s methodology:
      (this must be in language comprehensible to a lay person)

Attach an accelerometer to the sticks and calibrate the results with a laptop. There will also be a high speed camera videoing the footage to gauge the head speed and ball speed. The volunteers will be asked to just hit the ball as normal, 3 times per stick.

To also understand the player’s perception of the vibrations, I will also use ear defenders and obscure the player’s vision from seeing where their shot ends up. This will develop how well they feel like the shot went using the feedback from vibrations alone.

A6. What is the potential for physical and/or psychological harm/distress to participants?

Very small. Less than if they were playing a proper game of hockey.

A7. Does your research raise any issues of personal safety for you or other researchers involved in the project? (especially if taking place outside working hours or off University premises)

No.

If yes, explain how these issues will be managed.

A8. How will the potential participants in the project be:
   i. Identified?

Their names won’t be recorded, their results will have a number allocated to them.
ii. **Approached?**

Ask friends from the University of Sheffield’s Hockey Club.

iii. **Recruited?**

Ask for volunteers, no-one will be forced against their will.

**A9. Will informed consent be obtained from the participants?**

Yes [ ] No [ ]

If informed consent or consent is **NOT** to be obtained please explain why. Further guidance is at: [www.shef.ac.uk/ris/other/gov-ethics/ethicspolicy/policy-notes/consent](http://www.shef.ac.uk/ris/other/gov-ethics/ethicspolicy/policy-notes/consent)

**A9.1.** This question is only applicable if you are planning to obtain informed consent: How do you plan to obtain informed consent? (i.e. the proposed process?):

I will have an information sheet conveying what I want to carry out, and achieve, then they will sign it before testing takes place.

Remember to attach your consent form and information sheet (where appropriate)

**A10. What measures will be put in place to ensure confidentiality of personal data, where appropriate?**

The results will be confidential.

**A11. Will financial/in kind payments (other than reasonable expenses and compensation for time) be offered to participants?** (Indicate how much and on what basis this has been decided)

There won’t be any sort of payments to the volunteers; it shouldn’t take too much of their time.

**A12. Will the research involve the production of recorded media such as audio and/or video recordings?**

Yes [ ] No [x]

**A12.1.** This question is only applicable if you are planning to produce recorded media: How will you ensure that there is a clear agreement with participants as to how these recorded media may be stored, used and (if appropriate) destroyed?
(The student completes Annex 1 if the Supervisor has classed the student’s proposed research project as ‘low risk’)

The Supervisor needs to receive an electronic copy of the form, and other documents where appropriate, plus a signed, dated, paper copy of this Annex 1 ‘the Student Declaration’.

**Full Research Project Title:**

| Dynamics of Hand – Object Interactions |

**In signing this Student Declaration I am confirming that:**

- The research ethics application form for the above-named project is accurate to the best of my knowledge and belief.
- The above-named project will abide by the University’s ‘Good Research Practice Standards’:
  [www.sheffield.ac.uk/ris/other/gov-ethics/good](http://www.sheffield.ac.uk/ris/other/gov-ethics/good)
- The above-named project will abide by the University’s ‘Ethics Policy Governing Research Involving Human Participants, Personal Data and Human Tissue’:
  [www.sheffield.ac.uk/ris/other/gov-ethics/ethicspolicy](http://www.sheffield.ac.uk/ris/other/gov-ethics/ethicspolicy)
- Subject to the above-named project being ethically approved I undertake to adhere to any ethics conditions that may be set.
- I will inform my Supervisor of significant changes to the above-named project that have ethical consequences.
- I will inform my Supervisor if prospective participants make a complaint about the above-named project.
- I understand that personal data about me as a researcher on the research ethics application form will be held by those involved in the ethics review process (e.g. my Supervisor and the Ethics Administrator) and that this will be managed according to Data Protection Act principles.
- **I understand that this project cannot be submitted for ethics approval in more than one department, and that if I wish to appeal against the decision made, this must be done through the original department.**

**Name of supervisor:**

| XXXX |

**Name of student:**

| XXXX |

**Signature of student:**

| XXXX | Date: XXXX |
Information Sheet

Title of Research Project: Dynamics of Hand-Object Interaction

You are being invited to take part in a research project. Before you decide it is important that you understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

The purpose of the project is to understand more on the vibrations and feel of a hockey stick. The 3 areas I will be particularly be concentrating on are:

1. Vibrations – Using an accelerometer when you hit the ball I will be calibrating what magnitude and frequency of vibration is sent up the stick.
2. Stick Performance – Using a high speed camera I can work out what head speed you generate and what ball speed that creates. This will calculate which stick converts energy the most effectively.
3. Human Perception – I want to understand whether players can tell how they have performed without seeing or hearing their shot. Can the vibrations and feel alone be a good indicator?

You have been chosen due to your previous hockey experience. Your participation is entirely voluntary and you may refuse to agree to participate at any time. Even after signing the consent form you may withdraw at anytime without reason.

So today I will be asking for you to test a variety of sticks, and then asking a few questions at the end. None of your data will be recorded with your name; your results will remain confidential. I won’t be saving the high speed camera images, just replaying the footage to calculate the head speed and ball speed. Please do ask any further questions before signing the consent form.

I expect you to concentrate when you are testing, you will be asked to hit the ball 3 times for each of the 30 sticks. This should take no longer than an hour.

There aren’t any risks that you aren’t used to when playing hockey on the Astroturf. So be careful not to slip on the surface and be sensible when hitting the ball. Hopefully this testing will give you more understanding of the feel of a hockey stick.

If you have any complaints feel free to contact my supervisor: XXXX

The results will be published in May with the rest of my thesis; you will be able to view the results then.

The XXXX Department have ethically approved my research procedure.

If you wish to obtain further information please contact: XXXX

Thank you for your time.
Consent Form
Title of Research Project: Dynamics of Hand-Object Interaction
Name of Researcher: XXXX

Participant Identification Number for this project: 

1. I confirm that I have read and understand the information sheet explaining the above research project, and I have had the opportunity to ask questions about the project.

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. In addition, should I not wish to answer any particular question or questions, I am free to decline.

3. I understand that my responses will be kept strictly confidential. I give permission for members of the research team to have access to my anonymised responses. I understand that my name will not be linked with the research material, and I will not be identified or identifiable in the report or reports that result from the research.

4. I agree for the data collected from me to be used in future research.

5. I agree to take part in the above research project.

________________________  __________________  __________________
Name of Participant       Date                   Signature

________________________  __________________  __________________
Lead Researcher           Date                   Signature

To be signed and dated in presence of the participant