

A Policy for Research Ethics

1. On 9th December 2005, the Board of Governors accepted a Policy for Research Ethics recommended by Academic Board.

This policy is to be followed by all members of the staff and student body at Harper Adams University College when engaging in research. Staff and postgraduate research students will be made aware of these guidelines by the Dean of Academic Affairs. Students will be made aware of them by their dissertation tutor in advance of any research being undertaken. The guidelines will also be available on the L: drive.

All final year Investigational Project, masters and postgraduate research students are expected at the start of their research to sign a statement that they have read and understood the Code ('I confirm that I have read and understood the Code for Research Ethics') and on submission of a thesis to sign that they have followed the Code ('I declare that the research described in this thesis is in accordance with the Code for Research Ethics').

2. Aim and Objectives

Aim

To establish and promote good ethical practice in the conduct of academic research.

Objectives

- To encourage researchers to adhere to best practice relating to the ethical development, implementation and dissemination of research.
- To protect the integrity and reputation of Harper Adams University College.
- To protect the rights of participants.
- To protect the rights of fellow researchers.
- To promote sustainable agriculture, enhance biodiversity and optimise energy use in an environment of finite natural resources.

3. Rigour, respect and responsibility: a universal ethical code for scientists

This is a public statement of the values and responsibilities of scientists, defined by the Council of Science and Technology as including anyone whose work uses scientific methods, including social, natural, medical and veterinary sciences, engineering and mathematics. It aims to foster ethical research, to encourage active reflection among scientists on the wider implications and impacts of their work, and to support constructive communication between scientists and the public on complex and challenging issues.

The University College community is encouraged to adopt and promote this code. It is meant to capture a small number of broad principles that are shared across all disciplines.

Rigour, honesty and integrity

- Act with skill and care in all work. Maintain up to date skills and assist their development in others.
- Take steps to prevent corrupt practices and professional misconduct. Declare conflicts of interest.
- Be alert to the ways in which research derives from and affects the work of other people, and respect the rights and reputation of others.

Respect for life, the law and the public good

- Ensure that your work is lawful and justified.
- Minimise and justify any adverse effect your work may have on people, animals and the natural environment.

Responsible communication: listening and informing

- Seek to discuss the issues that science raises for society. Listen to the aspirations and concerns of others.
- Do not knowingly mislead, or allow others to be misled, about scientific matters. Present and review scientific evidence, theory or interpretation honestly and accurately.

All staff and students are encouraged to reflect on and debate how this code may relate to their own work. For example, acting with rigour, honesty and integrity may include: not committing plagiarism or condoning acts of plagiarism by others; ensuring that work is peer reviewed before it is disseminated; reviewing the work of others fairly; ensuring that primary data that may be needed to allow others to audit, repeat or build on work are secured and stored. Similarly, in communicating responsibly, scientists need to make clear the assumption, qualifications or caveats underpinning their arguments.

(Taken from Council for Science and Technology Discussion Paper, May 2005. www.cst.gov.uk)

A voluntary code of practice has also been published in 2004 covering the conduct of socio-economic research in Europe (www.respectproject.org/code). This RESPECT website includes background information that draws on existing literature to provide practical guidelines for researchers faced with social dilemmas.

4. Specific Guidelines for Research Ethics

4.1 Respect for the Person

1. Respect must be shown for those participating in the research process whether actively or passively. Participants include (i) subjects of observation, inquiry, test or experiment; (ii) collaborators; (iii) those assisting with the research process; (iv) those with responsibility over the space in which the research is conducted or over the participants of the research and (v) those who form part of the immediate context in which the research is being undertaken.
2. The University College's commitment to Equal Opportunities must be reflected in a non-discriminatory approach to participants in the research process. Respect for the person does not depend on gender, age, race, religion, sexuality or any other distinguishing feature.

3. Researchers must seriously and comprehensively consider the question of informed consent in the research process. The working principle should be that participants in research should give their informed consent to the research process.
4. Particular concern and consideration must be taken with the issue of informed consent where the research involves minors. Researchers should consider, with appropriate consultation, to what extent children are able to give their consent in the particular circumstances of the research.
5. Consent should be obtained from the institution (company/organisation) where the research is to be conducted. As a general principle, the more wide-ranging the research, the higher level of consent required.
6. The seeking of consent must be genuine. Prospective participants must have the opportunity to decide not to participate, without suffering any consequences for so doing.
7. Consent must be informed. Researchers have a responsibility to seriously and comprehensively consider the question of informing participants in the research of the content of that research. In particular, participants should be informed of any negative effects which the research may have on them (for example, emotionally, professionally, in terms of stress).
8. There may be occasions when the researcher considers that the full disclosure of the content and likely impact of the research process will negatively affect the integrity of the research process and its results. Due consideration must nonetheless be given to the impact of this lack of full disclosure on participants in the research process and the priority should lie with the well-being of participants.
9. Participants must have the right to withdraw their consent any at any point within the research process.
10. Respect for participants includes respect for privacy. Results should normally be reported in such a way that the identity of individuals cannot be determined. Particular concern must be taken where the data collected might be construed to be of a personal nature. If such data is to be collected, this should be communicated to the participant concerned before the research commences.
11. Researchers should be clear about the type of data to be collected and the method of collection, and this must be a key consideration when obtaining informed consent. This is particularly the case when the method of data collection involves covert observation of human interaction. The researcher should take care to ensure that participants are as far as possible aware of the period during which their actions or words contribute towards the research findings. Particular care should be taken over the use of data obtained from what might normally be construed as private conversations or actions.
12. Respect for participants includes respect for the working conditions and roles of contract staff. These should be clear and fair.
13. Researchers must be aware of any potential conflicts of interest in their work arising from their position within the research context. In particular,

researchers in a position of authority arising from or separate from the research process should be aware of placing other participants in a situation where they feel obliged to participate in the research or to produce particular results.

4.2 Respect for the Integrity of Knowledge

1. Researchers must not falsify or distort research findings, nor plagiarise the work of others. Particular care should be taken to ensure full and appropriate citation of the work of others.
2. Researchers must be aware of undertaking research in an area where they may be perceived to have a conflict of interest, for example in the form of a commercial or professional benefit accruing from particular results.
3. Researchers should show a sympathetic awareness of the research community within which they are working. Where criticism of the results or methods of others is deemed necessary, this should normally be constructive and carefully considered.
4. Due credit should be given to the contribution made by all of the researchers involved in a project. Authorship should be credited to those who have had a substantive input into the research output in question, with the appropriate relative weighting being accorded to authors (for example, in terms of the order of authorship) irrespective of professional position or seniority.
5. Researchers should be careful not to engage in research which they know to be beyond their competence. They should have the ability to use the appropriate methodological tools required for the research in question. Considerations of competence need particularly full assessment when entering into contracts with external funding bodies.

4.3 Respect for Animals

1. Harper Adams University College Board of Governors has established a committee of the Board of Governors known as the Animal Ethics Committee. The Committee and its Chairman shall be appointed by the Board of Governors. The holder of the College's Home Office Certificate will be the Chairman of the Committee. The other members will be:
 - Dean of Academic Affairs
 - 2 Project Licence Holders
 - 1 Personal Licence Holder
 - Named Animal Care and Welfare Persons
 - Named Veterinary Surgeon
 - 2 members not involved in animal work, at least one of whom shall be a lay member appointed by the Board of Governors
2. The Committee is authorised by the Board of Governors to ensure that:
 1. all animal use under the Animal (Scientific Procedures) Act 1986 is carefully considered and justified;

2. proper account is taken of all possibility for the reduction, refinement and replacement of the use of animals under the above mentioned Act;
 3. that a 'culture of care' is created by ensuring that all staff associated with animal work are appropriately trained and are competent to undertake their role;
 4. it obtains a report from recipients of project licences at the end of the project which includes the results achieved, any resulting published work and any unforeseen ethical issues raised by the project.
3. In cases of urgency the Chairman will be empowered to act on behalf of the Committee and to report his actions to the next meeting of the Committee.
 4. The duties of the Animal Ethics Committee shall be to:
 1. examine applications for new project licences and amendments to existing licences, with reference to the likely costs to the animals, the expected benefits of the work and the balance between these considerations. The Committee will have the right to approve an application for submission to the Home Office, to reject an application or to request amendment to an application;
 2. ensure that applicants for project and personal licences have fully considered opportunities to minimise the use of animals through replacement, reduction or refinement of experimental procedures. The Committee will have the right to request amendment to an application or reject an application in instances where evidence if not available that such full consideration has been made;
 3. review current projects and consider the outcome of completed projects in the context of the aims of replacement, reduction and refinement;
 4. ensure the adequacy of animal care and animal accommodation in relation to each licensed procedure;
 5. ensure that all staff involved in animal work are appropriately trained and are competent in the care and management of animals;
 6. ensure that staff working with animals are aware of the availability of information relating to alternatives to the use of animals;
 7. promote awareness of the responsible use of animals within the College.

5. Animal Ethics Committee - Ethical Review Process

The Animal (Scientific Procedures) Act 1986 regulates 'any experimental or other scientific procedure applied to a protected animal which may have the effect of causing that animal pain, suffering, distress or lasting harm'. The Secretary of State requires that an ethical review process be maintained in each establishment designated under section 6 or 7 of the Act. Every establishment is required to explain to and test with the Animals (Scientific

Procedures) Inspectorate a viable ethical review process. The satisfactory performance of this requirement is a standard condition for the continued operation of the Home Office licence.

The aims of the ethical review process are to:

1. provide independent ethical advice to the Certificate Holder, particularly with respect to project licence applications and standards of animal care and welfare;
2. provide support to named people (under the Act) and advice to licensees with regard to animal welfare and ethical issues arising from their work;
3. promote the use of ethical analysis to increase awareness of animal welfare issues and develop initiatives leading to the widest possible application of the principles of reduction, refinement and replacement (the 3Rs).

4.4 Respect for the Environment

1. Researchers should identify and follow established codes of best environmental practice.
2. Wherever possible and practicable, researchers should minimise the use and waste of energy, reducing emissions and recycling materials.
3. The protection, restoration and enhancement of biodiversity in all terrestrial and marine habitats should be encouraged by reducing pollution.
4. Researchers with an interest in agriculture need to protect and conserve natural resources for future generations in a sustainable fashion.
5. Researchers have a duty to raise the environmental awareness of others, by training and education, especially in relation to the environmental impact of their own research.
6. Where appropriate, researchers should develop, with their supervisory team, a set of environmental standards that can be regularly monitored and reviewed in relation to their research.
7. Researchers have a duty to communicate the environmental consequences of their practices and findings to a wider public audience, in an open and transparent fashion.

4.5 Principles of Good Research Practice

1. Professional Standards

Honesty

At the heart of all research endeavour, regardless of discipline or institution, is the need for researchers to be honest in respect of their own actions in scientific research and in their responses to the actions of other researchers. This applies to the whole range of research work, including experimental design, generating and analysing data, publishing results, and acknowledging

the direct and indirect contributions of colleagues, collaborators and others. All individuals must refrain from plagiarism, piracy or the fabrication of results.

Openness

While recognising the need for researchers to protect their own research interests in the process of planning their research and obtaining the results, Harper Adams encourages the researchers it funds to be as open as possible in discussing their work with other researchers and the public. Once results have been published, where appropriate the College expects researchers to make available relevant data and materials to others, on request.

Guidance from professional bodies

Where available, Harper Adams expects researchers to observe the standards of research practice set out in guidelines published by research societies and other relevant professional bodies.

2. Leadership and co-operation in research groups

The culture and tone of procedures within any organisation must be set by individuals in authority. With research, it is the responsibility of the Dean of Academic Affairs and senior colleagues to ensure that a climate is created which allows research to be conducted in accordance with good research practice. Within a research group, responsibility lies with the group leader. These individuals should create a research environment of mutual co-operation, in which all members of a research team are encouraged to develop their skills and in which the open exchange of research ideas is fostered. They must also ensure that appropriate direction of research and supervision of researchers is provided.

3. A critical approach to research results

Researchers should always be prepared to question the outcome of their research. While acknowledging the pressures of time and resources under which researchers often have to work, Harper Adams expects research results to be checked before being made public.

4. Documenting results and storing primary data

Throughout their work, Harper Adams requires researchers to keep clear and accurate records of the research procedures followed and of the results obtained, including interim results. This is necessary not only as a means of demonstrating proper research practice, but also in case questions are subsequently asked about either the conduct of the researcher or the results obtained. For similar reasons, data generated in the course of research must be kept securely in paper or electronic form, as appropriate. Harper Adams expects data to be securely held for a period that complies with the requirements and best practice of the funding body, research council or legislative requirement as appropriate.

5. Publishing results

It is a condition of Harper Adams support for research that the results are published in an appropriate form. Papers published in refereed journals are strongly encouraged. This has long been widely accepted as the best system

for research results to be reviewed through the refereeing process and made available to the research community for verification or replication. In recent years, however, questions have been raised, in particular about the growth in number of authors of individual papers, and the implications of increasing pressures to publish. The issue of authorship is important in the context of good scientific practice, and Harper Adams expects it to be taken seriously. Harper Adams expects anyone listed as an author on a paper to accept personal responsibility for ensuring that they are familiar with the contents of the paper, and that they can identify their contributions to it. The practice of honorary authorship is unacceptable. Harper Adams expects suitable acknowledgement of financial support in all publications.

6. Acknowledging the role of collaborations and other participants

In all respects of research, the contributions of formal collaborators and all others who directly assist or indirectly support the research must be properly acknowledged. This applies to any circumstances in which statements about the research are made, including provision of information about the nature and process of the research, and in publishing the outcome. Failure to acknowledge the contributions of others is regarded as unprofessional conduct. Similarly, collaborators and other contributors carry their share of the responsibility for the research and its outcome.

7. The needs of new researchers

Researchers who are new to the scientific community may face particular difficulties. Responsibility for ensuring that students and other new researchers understand good research practice lies with all members of the community, but particularly with senior researchers. Research institutions should have in place systems which allow students and new researchers to adopt best practice as quickly as possible, for example, formal training or mentoring schemes.

(Adapted from BBSRC Statement on Safeguarding Good Scientific Practice)