Review of Common Research Ethics

A resource for the Association for Applied Sport Psychology

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Best Practices in Research Student Initiative

This resource contains information from several sources, including: Dr. Deborah Smith out of the University of Kansas, Dr. David Resnik from NIEHS, Indiana University Research Gateway, California State Fullerton, and the Collaborative Institutional Training Initiative (CITI) Program.

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1. Importance of Ethics

This document aims to provide a general understanding of ethical practices in research, as these topics are often overlooked but are a critical part to the acceptance and integration of research into our communities. We will cover ethical practices by the researchers when collaborating with other researchers, designing projects, interacting with potential participants, and disseminating findings. While there are many different ethical codes, you are only *required* to follow the ethical code of the organization(s) in which you are a member. Many of the topics included in this document are consistent across many ethical codes. Dr. Resnik (2011) at the National Institutes of Health (NIH) gives a great explanation of the importance of ethics in research. In this explanation he mentions that ethics are important for, among others, the following reasons:

- Promotes the aims of research (i.e., knowledge, truth, avoidance of error)
    - Prohibitions against fabricating, falsifying, or misrepresenting data promote the truth and avoid error
- Promotes values essential for collaborative work (i.e. trust, accountability, respect, fairness)
    - Many guidelines protect intellectual property while also encouraging collaboration
- Ensures that researchers can be held accountable to and supported by the public
    - Policies on research misconduct, conflicts of interest, protection of subjects keep researchers accountable to public funding sources
    - People are more likely to fund research if they can trust quality and integrity of research.
- Promotes moral and social values
    - Social responsibility, human rights, law compliance, and health and safety
    - Not abiding by these can harm subjects but also damage the reputation of the research in the public eye

2. Common Ethical Issues

Sometimes ethical issues come up and it is easy to know how to handle them. However, listed below are a few situations/issues that may or may not be as easy to identify, or handle. Many of these occur during the research process and it is important to be able to recognize them when/if they arise.

A. Discuss intellectual property frankly

i. Intellectual property is anything someone has created, including ideas, concepts or phrases. This is particularly important in the research process because authors bring many different contributions to a research team/project. Determining the author order (i.e., who is the first author, second author, etc.) is typically based on the amount of intellectual property generated on the project, not necessarily the amount of labor that one puts into the project.
    i. Discuss authorship with all people involved on any research project.

ii. Author order should be brought up at the beginning of any working relationship
    i. Discuss roles and responsibilities on the project
    ii. Authorship should reflect the relative contributions to the project
    iii. Be able to discuss changes in contributions as the project goes on
        1. Order of authors should be revisited before any major changes to the project are instituted and not after the changes

iii. Minor contributors should be acknowledged, but not necessarily with authorship (Examples of recognition can include an introductory statement or footnotes in the published manuscript)
    i. Authors have ethical obligations after research is published
    ii. Authors are ethically obligated to correct errors to publications that change the interpretation of research findings
    iii. Be sure to store all of your data so you can go back and make changes if necessary

B. Be conscious of multiple roles

i. Multiple roles, or multiple relationships, encompass the degree to which you are connected to another person in various capacities.
    i. Be wary of working with people you have multiple professional relationships with
    ii. These multiple relationships could impair professional performance or exploit/harm them
        1. For instance, a course instructor could also be your research advisor. S/he may put you lower in the authorship list because, although you are a key contributor to the research, you are not doing well in her/his class.

ii. Use caution when recruiting for studies. You do not want to exploit participants
    i. Avoiding exploitation is particularly important when working with youth, convicts, students, or other vulnerable populations

iii. Other multiple relationships could be a friend being a participant in your research study or relationship partner being a collaborator on a project.
    i. Outline the nature of these relationships with supervisors/mentors before

starting any research projects

ii. If you do find that you are in potentially harmful multiple relationships, you should try to take steps to resolve them in the best interest of the person or group while complying with their governing bodies' Ethics Code (see below information on various Ethical Codes on page 6 of this guide). In some cases, taking such steps may be required.

iii. Another resource for tough situations is the University Research Integrity Officer (RIO), an unbiased individual that is required to be at any university that is receiving government monies.

C. Follow informed-consent rules

i. Informed consent is the process of informing participants about your study. Each institution will have its own guidelines on what needs to be included in the consent form, but it typically includes the purpose of the research study, description of the participants, risks and benefits of being in the research project, and what the researcher is asking of the participant. The consent form is a confirmation of understanding and agreement to participate in the study by the participant.

i. Informed consent can be obtained verbally or through a written document.

ii. Information that may influence willingness to participate should be included in a way the participant(s) can understand.

iii. Both APA's Ethics Code as well as AASP's Ethics Code mandates that psychologists and AASP members who conduct research should inform participants about the purpose of the research, expected duration and procedures.

ii. The consent form should include all of the following:

i. Participants' rights to decline to participate and to withdraw from the research once it has started, as well as the anticipated consequences, if any, of doing so.

ii. Reasonably foreseeable factors that may influence participants' willingness to participate, such as potential risks, discomforts or adverse effects.

iii. Any prospective research benefits.

iv. Limits of confidentiality, such as data coding, disposal, sharing and archiving, and any situations when confidentiality must be broken.

v. Incentives for participation.

1. Incentives are meant to be compensation for time, not coercive
2. With cash or gift card incentives, the amount should be comparable to the work required.
3. At many institutions the rule of thumb is around the minimum wage

a. Ex: A professor talks about doing survey research at a domestic violence shelter where many of the women were well below the poverty line. She could only offer $5 for the first survey (about 15 minutes) and $25 for a follow up interview (around 2-3 hours) for those who wanted to participate because her institution/the shelter was so aware that more women would participate in her research simply

for the money.

vi. Who participants can contact with questions.
vii. Likelihood, magnitude, and duration of harm or benefit of participation
viii. This is not an inclusive list, and each university will request slightly different information.

MOST IMPORTANT - KNOW YOUR UNIVERSITY'S RULES!

iii. For experimental research:
  i. Inform individuals about the experimental nature of the treatment
  ii. Inform participants of services that will or will not be available to the control groups
  iii. Inform how participants will be assigned to treatment and control groups
    1. Available treatment alternatives and compensation or monetary costs of participation.

iv. APA Ethics Code says psychologists can skip informed consent in two instances only:
  i. When permitted by law or federal or institutional regulations
  ii. When the research would not reasonably be expected to distress or harm participants and involves one of the following:
    1. The study of normal educational practices, curricula or classroom management methods conducted in educational settings.
    2. Anonymous questionnaires, naturalistic observations or archival research for which disclosure of responses would not place participants at risk of criminal or civil liability or damage their financial standing, employability or reputation, and for which confidentiality is protected.
    3. The study of factors related to job or organization effectiveness conducted in organizational settings for which there is no risk to participants' employability, and confidentiality is protected.

v. Consent vs. Assent
  i. Consent is the process of informing a potential participant about study procedures so that they can make a decision about participation. Assent is an active affirmation of a desire to participate.
  ii. Only someone with legal authority can give consent
    1. For example, if you are doing survey research with a 15-year old, you must obtain consent from a legal guardian permitting their child to participate AND obtain assent from the 15-year old indicating they show interest and would like to participate in the study
  iii. Even if the participant is under 18 and cannot give consent, s/he *must* give assent prior to participating
    1. This is particularly important with children, but can apply to anyone who is not able to make this decision on their own

D. **Respect confidentiality and privacy**

i. Discuss the limits of confidentiality with individuals involved in the research process.
ii. Give participants information about how their data will be used, what will be done with case materials, photos, audio, and video recordings

i. Only after you have described the confidentiality of the project should you then secure consent.

iii. Know federal and state law.
   i. Know the ins and outs of state and federal law that might apply to your research.
      1. For instance, the Goals 2000: Education Act of 1994 prohibits asking children about religion, sex or family life without parental permission.

iv. Take practical security measures.
   i. Store data in a secure area with limited public access
   ii. If feasible, consider de-identifying information

v. Be aware of inadvertent confidentiality breaches (see below)
   i. At times, it may be necessary to share data with other researchers on the project. When this is necessary, think about how data sharing will occur to protect participants
   ii. Inform participants of any data sharing in the consent process
      1. When using data sharing, use established techniques to protect confidentiality, such as coding data to hide identities.

vi. Use caution when exchanging confidential information electronically
   i. Understand the limits of the Internet.
      1. Use a secure server (gmail is NOT secure but an encrypted program such as Tutanota or Hushmail is)
      2. Some universities have the option of using encryption through their servers

E. **Common Ethics Codes**

i. Many resources are included below but some common ones are:
   i. **The Belmont Report.** Released by the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research in 1979, the report provided the ethical framework for ensuing human participant research regulations and still serves as the basis for human participant protection legislation (see Further Reading).
   ii. **APA's Ethics Code**, which offers general principles and specific guidance for research activities.(see Further Reading)
   iii. **AASP's Ethics Code**, which gives general principles and specific standards for research activities. (See Further Reading)
   iv. **Institutional Review Boards (or institutional research ethics equivalents)**, which protect participants in research and ensures federal, state, and university policies are abided to protect both the researchers and participants in research. Thinking positively about your interactions with an IRB can help smooth the process for both researchers and the IRBs reviewing their work.

3. Research Ethics Code Values

These common research ethics code values are adapted from Shamoo and Resnik (2009).

Honesty
Strive for honesty in all scientific communications. Honestly report data, results, methods and procedures, and publication status. Do not fabricate, falsify, or misrepresent data. Do not deceive colleagues, granting agencies, or the public.

Objectivity
Strive to avoid bias in experimental design, data analysis, data interpretation, peer review, personnel decisions, grant writing, expert testimony, and other aspects of research where objectivity is expected or required. Avoid or minimize bias or self-deception. Disclose personal or financial interests that may affect research.

Integrity
Keep your promises and agreements; act with sincerity; strive for consistency of thought and action.

Carefulness
Avoid careless errors and negligence; carefully and critically examine your own work and the work of your peers. Keep good records of research activities, such as data collection, research design, and correspondence with agencies or journals.

Openness
Share data, results, ideas, tools, resources. Be open to criticism and new ideas.

Respect for Intellectual Property
Honor patents, copyrights, and other forms of intellectual property. Do not use unpublished data, methods, or results without permission. Give credit where credit is due. Give proper acknowledgement or credit for all contributions to research. Never plagiarize.

Confidentiality
Protect confidential communications, such as papers or grants submitted for publication, personnel records, trade or military secrets, and patient records.

Responsible Publication
Publish in order to advance research and scholarship, not to advance just your own career. Avoid wasteful and duplicative publication.

Responsible Mentoring
Help to educate, mentor, and advise students. Promote their welfare and allow them to make their own decisions.

Respect for colleagues
Respect your colleagues and treat them fairly.

Social Responsibility
Strive to promote social good and prevent or mitigate social harms through research, public education, and advocacy.

Non-Discrimination
Avoid discrimination against colleagues or students on the basis of sex, race, ethnicity, or other factors that are not related to their scientific competence and integrity.

Competence
Maintain and improve your own professional competence and expertise through lifelong education and learning; take steps to promote competence in science as a whole.

Legality
Know and obey relevant laws and institutional and governmental policies.

Human Subjects Protection
When conducting research on human subjects, minimize harms and risks and maximize benefits; respect human dignity, privacy, and autonomy; take special precautions with vulnerable populations; and strive to distribute the benefits and burdens of research fairly.

4. Ethical Decision Making Case Studies

Dr. Resnik (2011) provides some great examples of ethical decision making and how they may be resolved.

Read each case, consider what the issues may be and how you would resolve these issues. After considering each, scroll down to see how we thought about it.

Case 1
Situation:
The research protocol for a study of a drug on hypertension requires the administration of the drug at different doses to 50 laboratory mice, with chemical and behavioral tests to determine toxic effects. Tom has almost finished the experiment for Dr. Q. He has only 5 mice left to test. However, he really wants to finish his work in time to go to Florida on spring break with his friends, who are leaving tonight. He has injected the drug in all 50 mice but has not completed all of the tests. He therefore decides to extrapolate from the 45 completed results to produce the 5 additional results.

Case 2
Situation:
Dr. T has just discovered a mathematical error in a paper that has been accepted for publication in a journal. The error does not affect the overall results of his research, but it is potentially misleading. The journal has just gone to press, so it is too late to catch the error before it appears in print. In order to avoid embarrassment, Dr. T decides to ignore the error.

Case 3
Situation:
Dr. Wexford is the principal investigator of a large, epidemiological study on the health of 5,000 agricultural workers. She has an impressive dataset that includes information on demographics, environmental exposures, diet, genetics, and various disease outcomes such as cancer, Parkinson's disease (PD), and ALS. She has just published a paper on the relationship between pesticide exposure and PD in a prestigious journal. She is planning to publish many other papers from her dataset. She receives a request from another research team that wants access to her complete dataset. They are interested in examining the relationship between pesticide exposures and skin cancer. Dr. Wexford was planning to conduct a study on this topic.

Case 4
Situation:
Dr. Smith is a professor within the Kinesiology department at her university. She is currently working on a study examining the use of psychological skills by collegiate athletes. Dr. Smith has many varsity athletes in her Kinesiology 200 class. She has been recruiting participants for months, but still needs many more. She is up for tenure this year and, needing this study to be published, decides to offer extra credit to the varsity athletes in her class to participate in her study.

Case 1

Issues and Resolution:

Many different research ethics policies would hold that Tom has acted unethically by fabricating data. If this study were sponsored by a federal agency, such as the National Institutes of Health, his actions would constitute a form of research misconduct, which the government defines as "fabrication, falsification, or plagiarism" (or FFP). Actions that nearly all researchers classify as unethical are viewed as misconduct. It is important to remember, however, that misconduct occurs only when researchers *intend to deceive*: honest errors related to sloppiness, poor record keeping, miscalculations, bias, self-deception, and even negligence do not constitute misconduct. Also, reasonable disagreements about research methods, procedures, and interpretations do not constitute research misconduct.

Case 2

Issues and Resolution:

Dr. T's error is not misconduct nor is his decision to take no action to correct the error. Most researchers, as well as many different policies and codes would say that Dr. T should tell the journal about the error and consider publishing a correction or errata. Failing to publish a correction would be unethical because it would violate norms relating to honesty and objectivity in research.

There are many other activities that the government does not define as "misconduct" but which are still regarded by most researchers as unethical. These are called "other deviations" from acceptable research practices and include:

- Publishing the same paper in two different journals without telling the editors
- Submitting the same paper to different journals without telling the editors
- Not informing a collaborator of your intent to file a patent in order to make sure that you are the sole inventor
- Including a colleague as an author on a paper in return for a favor even though the colleague did not make a serious contribution to the paper
- Discussing with your colleagues confidential data from a paper that you are reviewing for a journal
- Trimming outliers from a data set without discussing your reasons in paper
- Using an inappropriate statistical technique in order to enhance the significance of your research
- Bypassing the peer review process and announcing your results through a press conference without giving peers adequate information to review your work
- Conducting a review of the literature that fails to acknowledge the contributions of other people in the field or relevant prior work
- Stretching the truth on a grant application in order to convince reviewers that your project will make a significant contribution to the field
- Stretching the truth on a job application or curriculum vita
- Giving the same research project to two graduate students in order to see who can do it the fastest
- Overworking, neglecting, or exploiting graduate or post-doctoral students
- Failing to keep good research records
- Failing to maintain research data for a reasonable period of time
- Making derogatory comments and personal attacks in your review of author's submission
- Promising a student a better grade for sexual favors

- Using a racist epithet in the laboratory
- Making significant deviations from the research protocol approved by your institution's Animal Care and Use Committee or Institutional Review Board for Human Subjects Research without telling the committee or the board
- Not reporting an adverse event in a human research experiment
- Wasting animals in research
- Exposing students and staff to biological risks in violation of your institution's biosafety rules
- Rejecting a manuscript for publication without even reading it
- Sabotaging someone's work
- Stealing supplies, books, or data
- Rigging an experiment so you know how it will turn out
- Making unauthorized copies of data, papers, or computer programs
- Owning over $10,000 in stock in a company that sponsors your research and not disclosing this financial interest
- Deliberately overestimating the clinical significance of a new drug in order to obtain economic benefits

These actions would be regarded as unethical by most scientists and some might even be illegal. Most of these would also violate different professional ethics codes or institutional policies. However, they do not fall into the narrow category of actions that the government classifies as research misconduct. Indeed, there has been considerable debate about the definition of "research misconduct" and many researchers and policy makers are not satisfied with the government's narrow definition that focuses on FFP. However, given the huge list of potential offenses that might fall into the category "other serious deviations," and the practical problems with defining and policing these other deviations, it is understandable why government officials have chosen to limit their focus.

Finally, situations frequently arise in research in which different people disagree about the proper course of action and there is no broad consensus about what should be done. In these situations, there may be good arguments on both sides of the issue and different ethical principles may conflict. These situations create difficult decisions for research known as ethical dilemmas.

Case 3

Issues and Resolution:

Dr. Wexford faces a difficult choice. On the one hand, the ethical norm of openness obliges her to share data with the other research team. Her funding agency may also have rules that obligate her to share data. On the other hand, if she shares data with the other team, they may publish results that she was planning to publish, thus depriving her (and her team) of recognition and priority. It seems that there are good arguments on both sides of this issue and Dr. Wexford needs to take some time to think about what she should do. One possible option is to share data, provided that the investigators sign a data use agreement. The agreement could define allowable uses of the data, publication plans, authorship, etc.

Case 4

Issues and Resolution:

Dr. Smith has decided to offer extra credit for research participation to the athletes in her class, but not to the non-athletes. This is problematic for several reasons. First, Dr. Smith has not provided an equal opportunity for all of the potential participants she recruited. The athletes in her class have more incentive to participate than other athletes at the university. If she is going to offer extra credit to her class, she should also offer some sort of incentive for other student athletes not in her class. Second, Dr. Smith has provided an additional benefit for the athletes in her class for participating that the non-athletes do not have. She should include other research opportunities at the university for the non-athletes to participate in or an alternative to research participation for all students to get extra credit. Third, she has created the opportunity for potentially damaging multiple relationships. If students were to participate, they would be both her research participants and her students. This could serve as a form of coercion to participate in research, as students may feel they will not receive as good of a grade in the class if they do not participate. If she is to recruit her students, she should have a research assistant conduct the interview so that she does not know which students chose to participate. Or, Dr. Smith could wait until after grades have been submitted to recruit her own students.

5. Additional Resources

For more information, please see these sources:

APA's Ethics Code

AASP's Ethics Code

http://www.apa.org/monitor/jan03/principles.aspx

http://cme.nci.nih.gov

http://ohrp.osophs.dhhs.gov/humansubjects/guidance/belmont.htm

http://www.niehs.nih.gov/research/resources/bioethics/whatis/

Accessing CITI ethics trainings:

Citiprogram.org→ Login or create account → Add a course → Human subjects research social/behavioral researchers AND Social and behavior responsible conduct of research

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