

Learning Approach in Higher Education & Ethical Consideration

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Learning Approach



“Systematic investigation towards increasing the sum of knowledge”

“an endeavour to discover new or collate old facts etc. by the scientific study of a subject or by a course of critical investigation.”

Doing Research?



- What is it?
- Should you be doing it?
- How do you do it?

Science



- Link to Theory
- Plan and control factors
- Clear objectives
- Study and analyze data without bias.
- Can be proved/ not a philosophy
- Explain and predict future at some degrees of confidence.
- Repeatability

Major steps in scientific method



- Preliminary observation
- Formulation of hypothesis
- Testing of hypothesis
- The verification of results

The usefulness of research



- New knowledge
- Correct way of problem solving
- Reasoning
- Save cost
- Right policy and plan effectively
- Follow up/ Evaluation
- Practicing
- Research paper

Expected features of a research degree



- Independence
- Originality
- Contribution to knowledge
- Suitable for publication

Research skills



- Planning
- Execution
- Analysis
- Reporting

Planning



- Define clear objectives
- Identify context
 - importance & relevance
- Literature review
- Study design
- Determine analysis to meet objectives
- Protocol - Schedule and assign tasks

Failing to plan is planning to fail



- Research projects require a long-term integration of effort
- 'Activity trap' being busy \neq achieving progress

Execution



- Skills usually in your subject area
- Keep to protocol
- Record accurately
- Flexibility

Analysis



- Check data
- Carry out appropriate analysis
- Perform diagnostic checks on model assumptions
- Follow up unexpected features of data

Reporting



- Determine target audience
- Follow style & detail of journal
- Writing – Practice-practice-practice -
courses on writing and presentation

Writing and presentation skills



- Reports and papers
- Poster(s) – usually years 1-2
- Oral presentation(s) year 2
- Presentation at international meeting(s)
- Writing paper year 3

What is Research Misconduct?



Definition of Research Misconduct



Fabrication, falsification or plagiarism in proposing, performing, reviewing and/or reporting research.

Fabrication/ Falsification of data

- ✦ Enhancing digital Images partially
- ✦ Excluding Data from articles, presentations, grants
- ✦ Performing statistical analysis in a deliberately dishonest way.
- ✦ Creating data that was never recorded or performed

PLAGIARISM

Plagiarism

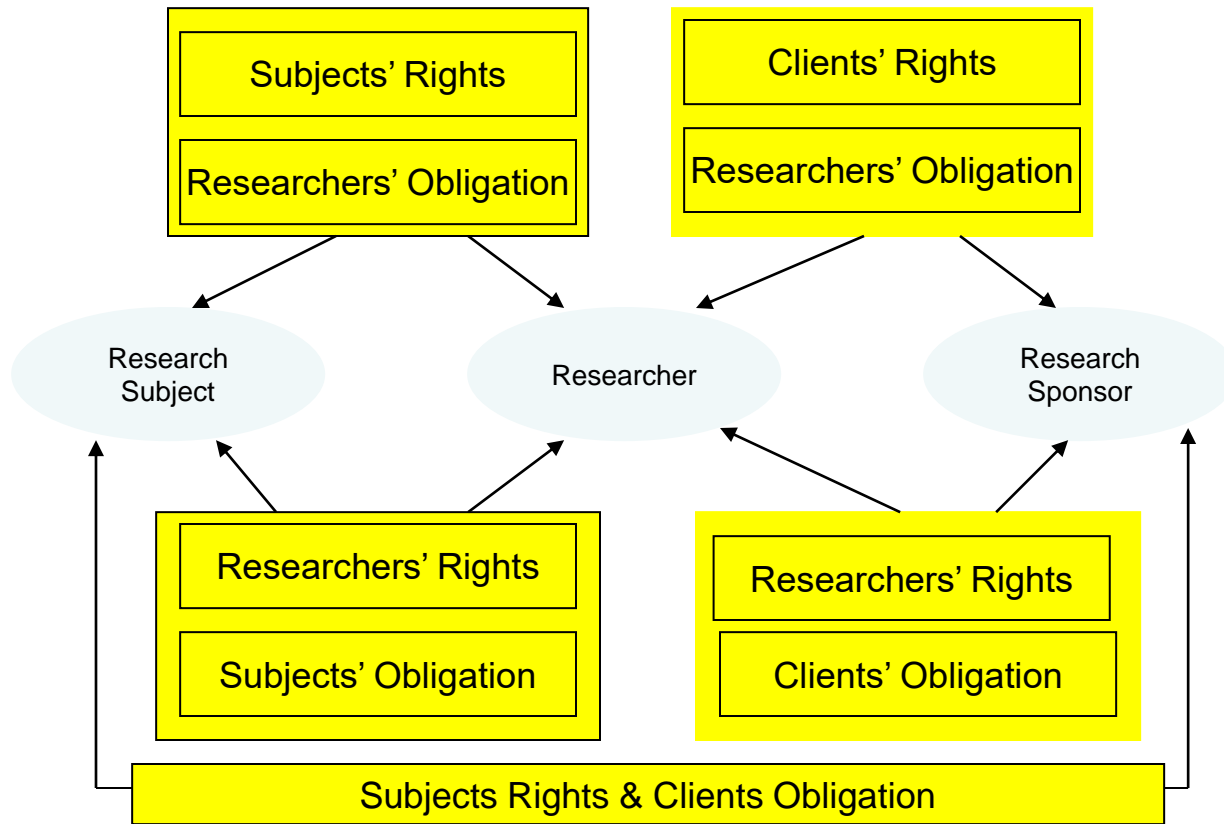
- ✦ Copying paragraph to use in a manuscript (article, thesis, grant, poster)
- ✦ Republishing your own work (Self-plagiarism)

Ethical Considerations in Research



- Ethics & Morals
- Societal norms and values
- Divergent perceptions of what is considered ethical and unethical
- What is “ethical” in research?
- Ethical Guidelines and professional associations

Ethical Interfaces in Research



Ethical Behavior Considerations: Research Subjects



- Truthfulness in giving information to the researcher if a research subject or respondent gives his or her consent to participate in a research study.
- Sustained cooperativeness with the researcher throughout the course of the research study.
- Adhere to responsibility if informed consent is given to the researcher.
- State any constraints or limitations in advance.

Ethical Behavior Considerations: Researchers



- No deception, be forthright and do not conceal the true purpose of the research
- Maintain objectivity, courtesy and high professional standards through scientific process
- No falsification, alteration or misrepresentation of data for political or other purposes

Ethical Behavior Considerations: Researchers



- Protect the confidentiality of the research subjects and research sponsors
- No faulty conclusions
- No inclusion or use of information or ideas contained in competing research proposals

Ethical Behavior Considerations: Research Sponsors



- No request for submission of competitive bids by researchers if selection of the researcher has already been made.
- Avoid manipulation and influencing of the researcher with a view to discrediting individuals or organizations.

Ethical Behavior Considerations: Research Sponsors



- The conclusions drawn from research work should be consistent with the data and not influenced by other undesirable conditions or motives.
- Observe the confidentiality of the research subjects and researcher
- Avoid Advocacy Research

Questions and suggestion



- Thank you