

Research Ethics

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Why ethics is relevant in PhD research

- All research conducted involves ethical issues to a lesser or greater degree.
- Academicians are increasingly pointing out the importance of
 - Ethics
 - Ethical dilemmas
 - The responsibilities of researchers to produce ethical knowledge
- The central principles are the same though different academic disciplines may have their own codes of ethical conduct.

Aspects of ethics in PhD Research

- There are many dimensions of 'ethics in research' .
- It is useful to examine ethics in several separate ways.
 - ① Personal integrity
 - ② Upholding scientific and professional standards
 - ③ Ethics in Scientific Communication and Reporting
 - ④ Avoidance of social and personal harm
 - ⑤ Compliance with law
 - ⑥ Compliance with "accepted practices" or regulations of the institutions
- Ethics not only involves people and society, it also recognizes rational and human treatment of laboratory animals.

Obligations of a researchers

- Obligations of a researchers to adhere to professional standards.
 - An obligation to honour the trust that their colleagues place in them.
 - Obligation as a Scientific Worker and a Professional to keep high ethical standard of the profession
 - An obligation to themselves. Irresponsible conduct in research can make it impossible to achieve a goal.
 - An obligation to act in ways that serve the public

The Primary Obligation as a Scientific Worker

- The object of research is to extend human knowledge beyond what is already known.
- An individual's knowledge enters in the domain of science only after
 - it is presented to others in such a manner that they can independently judge its validity
 - Clear and truthful communication of research results which can be independently verified or replicated

- A closely related theme with ethics
- Thus establishing mutual trust
- Academic integrity means being honest in the fulfillment of academic responsibilities
- Fairness is essential to the interactions of the academic community and is achieved through respect for the opinions and ideas of others

Examples of ethical violation

- Duplicate publication/submission of research findings
- Failure to inform the editor of related papers that the author has under consideration or “in press”
- Unrevealed conflicts of interest that could affect the interpretation of the findings
- Misrepresentation of research findings
 - use of selective or fraudulent data to support a hypothesis or claim

Research Misconduct

- Research misconduct means Fabrication, Falsification, or Plagiarism (FFP) in proposing, performing, or reviewing research, or in reporting research results.
- Fabrication is making up data or results and recording or reporting them.
- Falsification is manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.
- Plagiarism is the appropriation of another person's ideas, processes, results, or words without giving appropriate credit.
- Research misconduct does not include honest error or differences of opinion.

How ethical issues may affect a researcher

- Ethics is about moral disciplines which helps the society and helps the individual.
- Research misconduct or slippage in ethics may lead to
 - Penal actions from professional bodies
 - Penal actions from the employer or Institute
 - Legal liability
 - Loss of respect from colleagues
 - Retraction of publications
 - Rejection of thesis
 - Penal actions from funding bodies

Where do students learn ethical decision making?

- Mentor, advisor
- Fellow Masters/PhD students
- Friends
- Family
- Other faculty
- Discussions in courses, labs, seminars
- Religious beliefs
- Professional organizations
- Courses dealing with ethical issues

- Plagiarism: Submitting or presenting the work of another or others as if it were the candidate's own work.
- Taking someone else's intellectual property and passing it off as your own.
- In relation to research candidature plagiarism:
 - Applies to work submitted or presented at any stage during the candidature
 - Includes any material, including drafts, submitted or presented, such as a paper, chapter or agreed piece of work required by the supervisory panel or work presented for examination.

Plagiarism and Self-Plagiarism

- Plagiarism: using the ideas or words of another person without giving appropriate credit
- Self-Plagiarism: The verbatim copying or reuse of one's own research
- Both types of plagiarism are considered to be unacceptable practice in scientific literature

Plagiarism Contd.

- Using someone else's ideas or phrasing and representing those ideas or phrasing as our own, either on purpose or through carelessness, is a serious offence and known as plagiarism.
- “Ideas or phrasing” includes written or spoken material, from whole papers and paragraphs to sentences, and, indeed, phrases—but it also includes statistics, lab results, art work etc.
- “Someone else” can mean a professional source, such as a published writer or critic in a book, magazine, encyclopedia, or journal; an electronic resource such as material we discover on the World Wide Web; another student at our school or anywhere else; a paper-writing “service” etc.

Plagiarism Contd.

- Plagiarism has become a matter of grave concern in academic circles
- Rampant among students today
- Several prominent cases involving journalists, authors and historians in recent years
- With electronic cut-and-paste techniques and the wealth of information freely available on the web, it is to be tempted to plagiarize

Why do Students Plagiarize ?

- Two types of reasons:
 - Unintentional
 - not knowing the rules of proper and complete citation
 - Not remembering the source
 - Intentional
 - Poor time planning, deadlines to be met.
 - Laziness to paraphrase and cite.
 - Allured by terse and well framed expressions
 - Temptation to obtain higher grades
 - Wrong notion that every one else is doing it, so it is OK
 - Just for kicks, “catch me if you can”

Plagiarism Contd.

- Each member of the academic community is expected to give
 - full, fair, and formal credit to any and all sources that have contributed to the formulation of ideas, methods, interpretations, and findings.
 - The absence of such formal credit is an affirmation that the work is fully of the writer's.
- The term “sources” includes, (but is not limited to),
 - published or unpublished materials,
 - lectures and lecture notes,
 - computer programs,
 - mathematical and other symbolic formulations,
 - theses, dissertations,
 - includes electronic media.
- The representation that such work of another person is the writer's own is plagiarism

Plagiarism Contd.

- Care must be taken to document the source of any ideas or arguments.
- If the actual words of a source are used, they must appear within quotation marks.
- In cases that are unclear, the writer should take care to avoid plagiarism
- The source should be cited whenever:
 - A text is quoted
 - Data gathered by another are presented in diagrams or tables
 - The results of a study done by another are used
 - The work or intellectual effort of another is paraphrased by the writer

- Careful note taking and record keeping with reference to literature consulted are essential to avoid unintentional plagiarism.
- Avoiding plagiarism in literature survey; cite the sources
- Apply quotation marks if material from elsewhere is used as it is

Avoiding Plagiarism

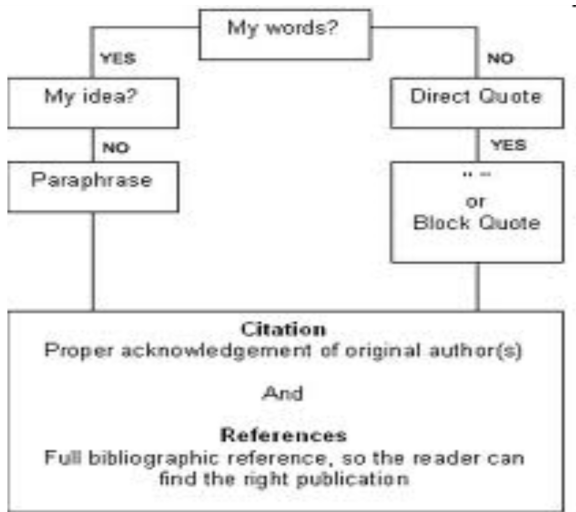


Figure:

Plagiarism, Theft, Purchase, Piracy

- Plagiarism differs from theft in a more profound way.
- Taking an object that has been abandoned or given away is not considered stealing.
- But copying the ideas of an anonymous author, or claiming credit for an idea given to you by a friend who does not wish to claim authorship, is considered plagiarism.
- One can borrow an item and return it
- Plagiarism have no provision for returning.
- One can buy an object from another person on exchange of money
- However, buying the rights to authorship from another, is also plagiarism.

Plagiarism, Theft, Purchase, Piracy

- Piracy is the sale of attributed but unauthorized copies of a work, an act depriving the author of profit but not credit.
- Piracy, being depriving authors of profit is theft
- Not so with ideas.
- Building new ideas from old ideas, using existing components and combining them in new ways, might be creativity, not plagiarism.
- Objects that are stolen remain stolen even if they are taken apart and recombined.
- Therefore it is sometimes possible to commit plagiarism without realizing that one is doing so.
- Learning to avoid plagiarism requires careful training in a system of conventions particular to a field, unlike learning to avoid theft.

Penalties of Plagiarism

- Plagiarism if detected is generally penalized by appropriate academic body
- Any student who has submitted a paper, project, or other academic work which is not his/her own without appropriate acknowledgement is subject to disciplinary charges.
- Such disciplinary charges or actions may be carried out many years after submission.
- Such charges may result in:
 - disqualify/ blacklisted
 - rejection of a thesis , revoking of the degree
 - other penalties like cancellation of any sanctions/registration,
 - including suspension and termination of studentship

- If plagiarism is detected in a Journal paper after it has been published, all co-authors will be penalized.
- Sometimes, supervisor(s) will be penalized for
 - self plagiarism of a student
 - Two students submitting theses containing identical portions without citations
- The supervisors are now extremely cautious and may ask for a declaration of originality (non plagiarism) from the student(s).

- In the case of suspected plagiarism, the Supervisor or the advisory committee generally:
 - Try to determine the degree and extent of the misconduct
 - For example whether it is a few instances of quotations/copy without citation, self plagiarism, the work submitted is not a thesis, etc., a case of genuine oversight etc.
- If the misconduct is serious enough, the case may be handed over to appropriate disciplinary body with the evidence.
- In case of less serious cases, a written apology and resubmission of the assignment may be permitted.

- Slides are taken from Chapter 10–Research Methodology Course, T. K. Ghoshal, Emeritus Professor, Electrical Engineering, Centre for Knowledge Based Systems, Jadavpur University, 2013