



The background features a blue-toned abstract design with large, 3D, white-outlined text elements. At the top, 'SCIENCE' and 'DATA' are visible. In the middle, 'DOCUMENTATION' and 'DEVELOPMENT' are prominent. At the bottom, 'EXPLORATION' is partially visible. A green circuit board with various components is shown at the very bottom, partially overlapping the text.

Application of Ethics in Research Conduct and Publications

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Introduction

Research involves in creating new knowledge through scientific approaches where conclusions are drawn based on observations of experiments. Importantly, research helps extend human knowledge beyond what already exists. Although, different protocols, methodologies, techniques and approaches are applied in research, under certain assumptions, a question arises whether all these adopting practices are in line with an acceptable ethical framework. A need of such ethical framework in conducting research and thereafter, in publishing the research findings has been understood over decades given the inhumane practices adopted in certain studies. For example, Nazi Medical Experiments (1933 – 1945), Tuskegee Syphilis Study (1932), Willowbrook Study (1950s – 1970s) and Jewish Chronic Disease Hospital Study (1960s) are prominent among them. Considering unethical nature of these studies, it led to develop 'Ethical Codes and Regulations' in order to maintain the boundaries of research process minimizing harm to its participants. Accordingly, some Ethical Codes and Regulations like Nuremberg Code, Belmont Report and American Psychological Association (APA) Guide were introduced from time to time.

In general, the research projects that involve in human participants, use of the products of human participants, animal participants, work that potentially impacts on human participants, and some other studies such as research related to environment and plants (prone to extinction)

etc. need to be cleared for ethics before commencing research activities. Hence, practicing the permitted ethical approval during the research conduct is the responsibility of the researchers.

Ethical Principles

Ethics means a conception of conduct and it can be either right or wrong, as per the societal acceptance. However, research ethics mainly focus on application of fundamental principles in planning, conducting and publishing of research while specifying the basic norms and values of the research community. Defining research ethics is important in order to (i) protect participants (patients/society), resources and researchers, (ii) ensure accuracy of scientific knowledge and (iii) protect intellectual and property rights. There are core ethical principles that are applied in research and they are;

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a

Respect for human dignity

b

Respect for vulnerable persons

c

Respect for justice

d

Minimizing the risk of harm

e

Obtaining informed consent

f

Protecting anonymity and confidentiality

g

Avoiding deceptive practices

h

Providing the right to withdraw

Adhering to these principles is important in terms of respecting and causing no harm to the participants. It is also a professional requirement and mandatory for obtaining funding. Nevertheless, it is apparent that failing to conduct research ethically results in research or researcher being dismissed or rejected by the research community.

Ethics in Publications

According to Whitesides (2004), if a research does not generate papers, it might just as well not have been done. Therefore, communication of research findings is a must so that the findings are accepted. On the other hand, publications are how the world sees you. It determines whether you get funding for further research or not and whether you get promoted or not. Also, it determines whether you keep your job or not.

Given these reasons, publications should be resulted after research and it is the sole duty of the authors, reviewers, journalists and publishers to adhere to the ethical applications relevant to publications in publishing findings. Scientific publication is a team effort where authors, the journal and reviewers have to play a collaborative role. Peer review may not always be entirely independent unless otherwise the ethical adherence is not practiced by any of the above parties.

Authorship

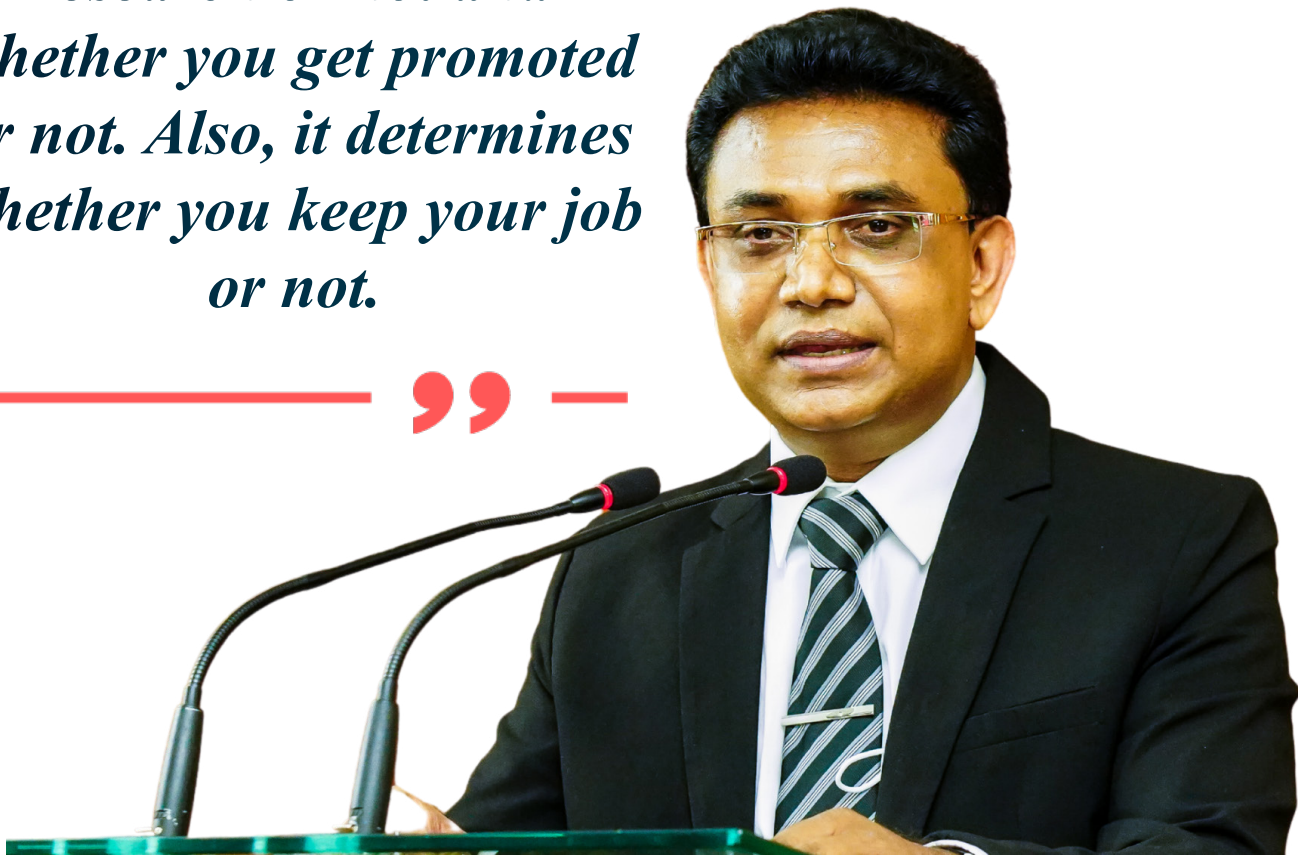
The list of authors establishes accountability as well as the credit of the publication. A person should be listed as an author of a paper only if that person has made a direct and substantial intellectual contribution to the design of the research, interpretation of data, or drafting of the paper. Other than that the acknowledgment section can be used to admire those who have indirectly contributed to the work.

There could be two types of authorships. Sometimes, a Gift Authorship is offered by including authors who did not contribute significantly to the study given the hierarchy of the institution and personal relationship. The second type is the Ghost Authorship where it can see the absence of authors. Professional writers should be always avoided from the list of authors but can be acknowledged. Conversely, authors disappear in certain cases due to hierarchical/political/ personal reasons and that is considered unethical.

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Maximizing Publication Number

It is obvious that, knowing or not knowing, some researchers try to maximize their publication number unethically. Salami slicing is one way of doing such where breaking up work into large number of small papers can be seen. Tiling is another way in which publishing sequence of substantially overlapping papers is promoted. Thirdly, publishing same work twice (Double publishing) or more is experienced. Therefore, it is important to have a demarcation on what is publishable and what is not acceptable for publishing.

Under the former, journals like to publish papers that are going to be widely read and useful to the readers. For example, the research papers that report original and significant findings; the papers that are well organized and well written regarding how the findings relate to and advance the understanding and/or development of the subject; and the papers that are concise and yet complete in their presentation of the findings. The latter mainly pays attention on the research papers that are routine extensions of previous reports and not

appreciably advance fundamental understanding or knowledge in the area; incremental/fragmentary reports of research results; verbose, poorly organized, papers cluttered with unnecessary or poor quality illustrations; violations of ethical guidelines, including plagiarism (of others or of oneself) and questionable research practices.

Author Responsibilities in Publishing

In order to avoid all above misconducts, the authors have to realize their responsibility in-depth and should involve in the assigned duty. They have the responsibility in preparation and submission of manuscripts; ensuring work as a new and original research; all authors being aware of submission and agreeing with content and support submission; agreeing that the manuscript can be examined by anonymous reviewers; providing copies of related work submitted or published elsewhere, if requested by the journal; obtaining copyright permission, if figures/tables need to be reproduced; and including proper affiliation in the manuscripts and informing changes immediately if happens after submitting. More importantly, it is the responsibility of the team of researchers to decide the persons to be included as authors without any favour or biasness.

Ethical responsibilities of Editors and Reviewers

On the other hand, editors and reviewers should also be responsible for certain activities that are needed for fulfilling the publication process. Here, maintaining confidentiality, not misappropriating ideas or text, emitting reviews that are justifiable and without bias, transmitting information to authors in a timely fashion, and declaring any 'Conflict of Interest' beforehand should be considered important. The reviewers should not have communications under any circumstances with the authors and it has to happen always from the editors.

Summary

The research should be conducted and published always in order to add new knowledge to the existing level. Therefore, practicing ethical guidelines will ensure that trustworthy knowledge can be read through research publications. Continuity of research is important in this regard with acceptable quality and standards so as to ensure the process of research for the betterment of future.

