



Ethics Guidelines for Writing Scientific Articles and Reports

Plagiarism (research theft) is being considered as major offence in recent years. Although conducting research projects and publishing scientific articles in national and international scientific journals is of particular importance in the scientific progress, this process will only be approved by international scientists only when the ethics and rights of the authors of scientific works are followed and effective contributors to creating a scholarly work are cited properly. Unfortunately, due to possible ignorance or deliberate manipulation by some authors, mistakes and errors can be found in representing scientific papers, which is an obvious example of plagiarism. The discovery of these errors - which has been made feasible by using various software products - will embarrass the author(s), relevant scientific institutes, and ultimately the scientific community of a country, naturally resulting in penalties that could damage a person's professional position. Despite the fact that the supervisor is responsible for observing the cases, all authors are equally held accountable for such violations. Since these cases are generally specified by expert reviewers in a specific scientific group responsible for evaluating the scientific research, the credibility of the author as a faculty member among his/her colleagues could be undermined. This issue is not limited to diminishing the credibility of the authors of a paper. Many journals adopt this new pattern. Moreover, many scientific communities hold violators accountable for their actions and, thus, reject their papers in the existing and subsequent series of the publication, or even in those of other journals.

Iran's legislation is still not bound by international treaties on copyright. However, this should not become the reason for disregarding others' rights, abusing individuals, or violating scientific ethics [1]. Perhaps, any disregard for such matters in this respect not only reduces the credibility of the violator(s) but also, ultimately, leads to fines.

The need for acquaintance with the cases of plagiarism is an indispensable necessity for development of science at a tremendous pace to expand genuine and credible scientific research and globally promote the country's scientific progress and, even, the credibility of Iranian articles.

1. Obvious examples of plagiarism

The cases of plagiarism are divided into three categories:

- A) Disregarding the rights of the authors of scientific works;
- B) Disregarding the rights of the effective partners in creating a scientific work;
- C) Abusing previously submitted scientific works.

Here are some examples of such disregard of rights:

- Presenting another scientific research entirety or with minor modifications attributed to one's name [2, 3].
- Utilizing information from a source, word by word, in another scientific research paper [1 & 2, 4].
- Providing part of the content of scientific research with or without the corresponding citation [2, 3].
- Utilizing ideas and sentences of various sources in a scientific research without specific reference to those sources [2, 3].
- Providing a paraphrased sentence without a specific source [2, 3].
- Changing the appearance, structure, and key sentences and combining them with the main content of scientific research preserved so that the idea is attributed to the writer of the scientific research, with or without reference [2,3].



- Changing the appearance, structure, and key sentences of several different works and combining them using different sources, modifying some sentences, and linking them together so that paraphrased ideas in research could pass off as authentic ideas [2, 3], with or without reference.
- Expressing the content of a source with new wording that is different from the meaning of the original reference [2].
- Using forms, tables, maps, laboratory data, results, device instructions or published databases without the permission of the aforementioned scientific research publishing organization [1], even with reference.
- Using unlicensed or cracked software products [1] for simulation or modeling purposes.
- Presenting a published article or part of it in a different language for another journal or scientific conference [2].
- Failing to make references to the sources used in scientific research such as the internet, books, textbooks or lectures with or without the right to publish [2].
- Failing to provide the exact address of the website and the accession time while using an internet source.

1.2. Trampling the rights of the colleagues involved in an article

Some samples of such denial of and disregard for others' rights are given in the following:

- Refusing to name the supervisor, advisor, student or anyone involved in the fruition of an article.
- Utilizing the ideas, content, and results of the shared research work unilaterally without the colleagues' awareness.
- Presenting the already published paper or part of it in another language for other journals or conferences.
- Naming those effectively involved in research without their awareness or coordinating with them.

1.3. Abusing the author's previous own research

Some of such abuses are presented below.

- Using the already published article in a journal for a conference or research presentations.
- Presenting previously published articles in research series/volume of a conference for re-publishing in another journal unless appropriate permit and previous publication records are obtained.
- Presenting an article for two or more journals or conferences simultaneously.
- Using an already presented article at a research conference for re-presentation at another research conference.
- Presenting an already published paper, or even part of it, in another language for another journal or conference.
- Using own published sentences, methods, tables, graphs, and results in another paper.

2. Important ethical points about research works

Besides the cases commonly associated with plagiarism, the observation of research ethics and its presentation is a step forward to the mastery of professional ethics and morals. Observing such ethical principles comes with certain advantages such as presentation of precise data for research, making incentives for consultation about or supporting a research work, building confidence among research colleagues, and creating enthusiasm for such research responsibility.

The first person to name as the author is the one who has done the lion's share of research [5]. All people involved in research should be mentioned [5]. People or organizations involved in the research in any way should be acknowledged [5]. People not involved in the research must not be mentioned or acknowledged [5].



The authors of a research work should not unilaterally and one-sidedly use the unpublished data, ideas, and results in a study for their own.

The reviewers or referees in charge of reviewing an article or a study must not use the ideas, tables, and information in the article for their own benefit. In some cases, some ideas or suggestions that are sent to research centers to receive related funds are rejected for a number of reasons or remain unanswered; however, after a while, the same idea or proposal is used in the form of a research project and, then, is assigned to a person or an organization. Financial supporter(s) should have no part in, and not interfere with the time and place of research presentation. In addition, the change or deletion of data is not acceptable either [2,6]. Results of a research paper should not be presented in the form of different papers [5]. Research results should be presented without any change in, or removal of data. Inappropriate or unreal titles or labels for writers/authors should be avoided.

3. Proportionate punishments authorized by Iranian Journal of Chemical Engineering in case of proven plagiarism and plagiarized data

Given the complete series of recommendations and appropriate warnings on plagiarism, the research of violators will be rejected at all conferences and for subsequent volumes of this journal. Furthermore, the vice chancellor for research of the appended university in the presented article will be informed of the matter. If a paper is funded and sent from an industrial center, the violator will be subject to the same punishment mentioned above, and the top person in charge of the corresponding organization will be informed as well. The editorial board decides the terms of violation; if such violation is observed, the board will notify the author(s), receive their answer, and reach a conclusion based on professional peer-reviewing.

Of note, the author who uses the same lines and sentences of his/her previously published works in a new research study will be notified and admonished for the first time and, in case of reiteration, the author will be subject to the aforementioned punishment.

4. Suggestions

To improve the scientific level of articles or prevent plagiarism, the following points may be helpful:

- Commitment to trustworthiness and integrity as ethical principles.
- Focus on the main purpose of presenting scientific research, which is to provide the actual research results for science advancement or to give a correct overview of the pieces of research already done in order to summarize the research findings in a specific scientific context and be aware of the new approaches in various fields of scientific research.
- Avoidance of haste and negligence in presenting scientific research with any purpose, especially for the promotion of science, occupation, or the submission of articles for a specific conference.
- Allocation of a higher score to articles that have been used as a reference in several scientific studies, especially those articles used as references by others and not by the authors themselves.
- Avoidance of undermining the score of articles written by numerous authors if the research was done on a national scale or in a variety of fields.
- Familiarization of students with research methods and presentation of scientific research pieces during BA course.
- Control of students' scientific research and the references provided by the supervisor.
- Requests on behalf of the Secretariat of the Journal, Conference or Office of the Faculty and Department to complete the scientific research commitment form before submission, in addition to the notification of the violation cases.
- Development of comprehensive and fair laws for dealing with plagiarism and related cases.
- Informing all authors of any deliberate or unintentional scientific error prior to the publication of the scientific research and the annulment of research publication at any stage of the review [2, 6].
- Informing all authors and editors of the conference or publication if a scientific error has been identified following the publication of scientific research. In case of negligible errors, revisions are



submitted and inserted, while in case of considerable errors, the article is removed from the list of the submitted articles [6, 2]. Also, in the case of post-defense scientific errors of theses, there is a need for well-formed rules regarding the student(s)' violation and their respective professors [1].

- Definition of legal frameworks and supervision of places offering computer typing or printing service [1].

References

[1] Khoshnoudi, M., "What Should we do by plagiarism?" Iranian Chemical Engineering Journal - Vol. 6, No. 29 (2007), in persian.

[2] Workshop's Powerpoint, "Workshop title: Scientific Integrity" Karimian Eghbal, M., Tarbiat Modares University, (2007), in persian.

[3] www.Plagiarism.org

[4] www.aotf.org/Portals/0/documents/Resources_publications.ppt, American Medical Association, (1998).

[5] Lecture's Powerpoint in "Plagiarism" by Shayegan, J., 7th International Congress of Chemical Engineerin,(2011),in persian.

[6] www.aotf.org/Portals/0/documents/Resources.research_misconduct.ppt