

November 26, 2013

Board of Directors

Guidelines for the Proper Publication of Research Findings

Tohoku University has an array of faculties, graduate schools, institutes, and inter-departmental institutes for education and research that specialize in different disciplines. The academic societies which researchers at these schools and institutes are affiliated with vary, as well as the social nature of the researchers. Irrespective of these differences, all researchers at Tohoku University are required to uphold fundamental values in conducting research, including fairness, integrity, accuracy, and objectivity. These Guidelines, by respecting these research values that all researchers are expected to observe, set out basic guidelines for the proper publication of research findings that apply across the whole university.

While each discipline observes the guidelines differently, all researchers are required to use proper practices for research-based publication, without committing any of the following misconduct and improper dealings in research activities.

These Guidelines have been prepared by referencing the “Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication” (2010) (*1) edited by the International Committee of Medical Journal Editors (ICMJE).

1. Misconduct and Improper Dealing in Research Activities

Based on the “Guideline for Countermeasures Against Misconduct in Research Activities: Report of the Special Committee on Scientific Misconduct (Special Committee on Scientific Misconduct of Council for Science and Technology, Ministry of Education, Culture, Sports, Science and Technology, August 8, 2006)” (*2) and the “Report of the Review Committee for Ensuring the Fair Research Activities of Researchers (January 24, 2012)” (*3), Tohoku University defines misconduct and improper dealing in research activities as follows.

(1) Misconduct

Researchers must not commit the following acts of misconduct in research activities:

- (i) Fabrication
Making up data or research results that do not exist.
- (ii) Falsification
Manipulating research materials, equipment, or processes, or modifying data

or results obtained from research activities and thereby, rendering them unauthentic.

(iii) Plagiarism

Appropriation of another researcher's ideas, analysis methodologies, data, research results, papers, or words, without obtaining the consent of the researcher or giving appropriate credit.

(2) Improper Dealing

To properly publish research findings, researchers must not commit the following improper dealings:

(i) Duplicate submission (duplicate publication)

The practice of creating multiple research papers which are deemed to have the same content and publishing them in different journals

(ii) Fragmented publication

The practice of splitting and publishing research that can be published in a single paper. It is sometimes called "salami publication".

(iii) Improper authorship

The practice of including individuals who do not qualify as authors as authors, or omitting individuals who qualify as authors, in the list of authors of research papers

(iv) Others

Practices such as breach of obligation related to conflict of interest, breach of confidentiality, failure to obtain the consent of research subjects, abuse of research subjects or materials.

2. Improper Publication of Research Findings

(1) Duplicate Submission (Duplicate Publication)

Tohoku University has compiled opinions on duplicate submission (duplicate publication) in the "Report of the Review Committee for Ensuring the Fair Research Activities of Researchers" (*3), which was submitted on January 24, 2012. This report serves as the basis for the below description of duplicate submission (duplicate publication).

A. Definition

According to ICMJE's policy (*4), "duplicate submission (duplicate publication)" is the practice of submitting a paper that is in essence the same as one already published, or one being submitted to another scholarly journal, in print or electronic media, in cases where originality is demanded. Overlapping publication includes the publication of research subjects, methodologies, results, and their interpretation which are identical or similar to those of a paper already published. The use of figures, tables, or data from papers already published also

falls under duplicate submission (duplicate publication). Furthermore, papers which deal with the same subject matter as thesis research that has already been published are considered duplicate submissions (duplicate publication) if there are only minimal differences. Duplicate submission (duplicate publication) is a practice that seriously undermines research ethics and is an inappropriate practice for researchers.

Duplicate submission (duplicate publication) is a practice which undermines the credibility of the entire scholarly journal that attaches most importance to originality. It also raises the question of who the paper's copyright holder is, and imposes restrictions on the research activities of the author him/herself on the grounds that he/she is in breach of the submission rules of the scholarly journal. In addition, duplicate submission (duplicate publication) entails the wasteful use of human and material resources involved in scholarly publishing, namely to peer-review and edit the manuscript unnecessarily. In recent years, to prevent duplicate submission (duplicate publication), an increasing number of academic societies request authors to submit, when submitting a paper, a written oath verifying that the paper is not a duplicate submission (duplicate publication). If it is found that the paper was a duplicate submission (duplicate publication), professional organizations, such as academic societies, are increasingly taking measures, including deleting the paper. As the research environment becomes more competitive and the quick delivery of research findings is demanded, some have pointed to the risk that this encourages the undue overstatement of research achievements through duplicate submission (duplicate publication).

In many professional organizations, such as academic societies, the copyright of the submitted paper is assigned to the organization, which the paper was submitted to, or to the publisher. Even if the paper was submitted by the author him/herself, a third party such as the academic society owns the copyright in most cases. Thus, if a paper for which a third party owns the copyright is listed in a researcher's paper without proper citation, this is considered a violation of the copyright law as well as duplicate submission (duplicate publication).

Some academic societies permit submissions equivalent to (i) to (vi) below, assuming they do not breach the copyright law. In such cases, this must be stated in the submission rules, and the rules of professional organizations must be respected.

- (i) Official Gazette (publication of unexamined patent application), Patent Gazette, etc.
- (ii) Bachelor's thesis, master's thesis, doctoral thesis, technical report, or other

- reports for the university;
- (iii) Proceedings of other academic societies' congresses, seminars, international conferences, etc.
- (iv) Corporate technical report, etc.
- (v) Newspaper article, etc.
- (vi) Highly open preprint, etc. (*5)

In the past, it was customary to turn “conference proceedings” into papers by supplementing data and enriching the content. However, in cases where conference proceedings are available to the public and are available for viewing, proceedings have been increasingly treated in the same way as papers in terms of originality. Hence, if the submission rules of scholarly journals require originality, papers cannot be submitted even if data has been supplemented to the conference proceedings and content has been enriched. Even in cases where the submission of papers is permitted, it is sometimes necessary to properly cite the conference proceedings in the text. Nevertheless, how conference proceedings are handled varies significantly by research discipline. Researchers should confirm the handling of conference proceedings set forth by each discipline and adhere to the submission rules of scholarly journals and other publications.

B. Criteria

Many professional organizations like academic societies treat content that has been published elsewhere as lacking “novelty.” Accordingly, in many cases, their rules for the submission of scholarly papers include definitions of duplicate submission (duplicate publication) and explicitly prohibit such practices.

Duplicate submission (duplicate publication) is, in principle, a violation of the rules of academic societies and other publications. These rules vary significantly depending on the professional organization. Determining whether or not a specific practice is duplicate submission (duplicate publication) inevitably requires an evaluative and normative evaluation of whether the practice deviates from the norms of research finding publication. The final decision regarding whether there is duplicate submission (duplicate publication) or not is made by the editorial committee of the scholarly journal, or the group of experts at the academic society. To ensure that all researchers have a common understanding of the problems of duplicate submission (duplicate publication), Tohoku University's criteria for duplicate submission (duplicate publication) are presented below:

- (i) A paper that is being newly submitted must clearly identify how it is different

from papers which have already been published;

- (ii) If partially citing information like text, figures, and tables from papers which have already been published, a paper that is being newly submitted must be sure to identify the sources;
- (iii) Authors of papers which have already been published or are being submitted must not submit separate papers that have the same or very similar content; and
- (iv) Researchers must not submit papers which have already been published by translating them into other languages in violation of the submission rules of scholarly journals and the rules and customs of professional organizations such as academic societies.

The following cases are not considered duplicate submission (duplicate publication):

- (i) While the paper being newly submitted contains content which overlaps with the original paper, the differences from the original paper are made clear in the text (the paper being newly submitted includes important information or insight not stated in the original paper, or presents a new interpretation of the experiment results or constructs a theory not stated in the original paper), and in stating this, the original paper is properly cited;
- (ii) In using content from the original paper (including data), the approval of the applicable professional organization has been obtained to avoid copyright infringements;
- (iii) The newly submitted paper is not deemed as an “original paper” by its scholarly journal, and appropriately cites the original paper;
- (iv) A paper that has already been published or a paper that is being submitted to another scholarly journal is not deemed as an “original paper” by its scholarly journal, and the newly submitted paper properly identifies that it includes content from literature that has already been published or is being submitted;
- (v) The researcher is required by the university or research institute to submit the paper as a requirement for earning a degree, and is publishing the paper as part of a doctoral dissertation;
- (vi) The paper was published as part of the preliminary publication on a well-known preprint server; and
- (vii) The paper was published as a summary of a publication for academic societies or conferences, and the newly submitted paper properly makes clear that content from papers that have already been published is included in the said summary.

(2) Fragmented Publication

Fragmented publication, so called “salami publication”, refers to the practice of

splitting research findings that can be reported in a single research paper into several segments and publishing them in multiple papers (salami papers). According to the Committee on Publication Ethics (COPE) (*6), if the same population, methods, and research theme or question are described in more than one paper, these papers are collectively deemed as salami papers. Researchers' motives for fragmented publication are to include a vast number of papers in their list of publications. This leads not only to distorting the career profiles of researchers, but also to receiving more grants than they would have otherwise. Moreover, fragmented publication could cause an incorrect interpretation of research results if readers have access to only one of the salami papers. As such, fragmented publication is a practice that undermines the research ethics of researchers and is an inappropriate practice for researchers.

(3) Improper Authorship

How authorship is managed varies from discipline to discipline. In the natural sciences, joint research tends to be a widespread practice. In the human and social sciences, there are disciplines in which single-author publications are common, while there are disciplines in which joint research constitutes an increasing weight. Accordingly, all disciplines have a paramount need to clarify authorship. The major international principles are no different from each other with regard to which individuals having which roles are deemed as authors.

An example of international principles is the “Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication” (*1) released by ICMJE. According to the requirements, authors must meet all of the following three conditions:

- A. Substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;
- B. Drafting the article or revising it critically for important intellectual content; and
- C. Final approval of the version to be published.

According to ICMJE, individuals who were engaged in only one of the following tasks do not qualify for authorship: obtaining grants; directing the research; providing support for experiments which are relatively unimportant; and providing administrative support. The names of individuals who contributed to the research in some form but do not meet the criteria for authorship should be listed in the acknowledgements.

In general, improper authorship includes a practice called “gift authorship.” “Gift authorship” is the practice of awarding co-authorship to an individual who has not

directly contributed to the preparation of the paper, and is often conducted by individuals in responsible positions at a laboratory. This is an improper dealing in which an individual in a position of strength exercises political power to list his/her name as an author.

In some cases, the author him/herself lists names of individuals who have not contributed to the preparation of the paper out of anticipated benefit. This practice is sometimes called “honorary authorship” among scientists, and also falls under improper dealing.

Examples of authorship include “first author,” “corresponding author,” and “last author (senior author).” How authorship is managed differs significantly depending on the research discipline, as well as the scholarly journal and other types of publications. Researchers must therefore confirm the guidelines set out in each discipline and exercise caution, including adhering to the submission rules of scholarly journals and of other publications.

References

- (*1) International Committee of Medical Journal Editors (ICMJE) (2010), “Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication,” http://www.icmje.org/urm_full.pdf.
- (*2) Special Committee on Scientific Misconduct of Council for Science and Technology(2006), “Guideline for Countermeasures Against Misconduct in Research Activities: Report of the Special Committee on Scientific Misconduct, Ministry of Education, Culture, Sports, Science and Technology,” http://www.mext.go.jp/b_menu/shingi/gijyutu/gijyutu12/houkoku/06082316/001.pdf.
- (*3) Review Committee for Ensuring the Fair Research Activities of Researchers (2012), “Report of the Review Committee for Ensuring the Fair Research Activities of Researchers,” http://www.tohoku.ac.jp/japanese/newimg/pressimg/press20120124_01_1.pdf.
- (*4) ICMJE’s policy on overlapping publications: http://www.icmje.org/publishing_4overlap.html
- (*5) Drafts of papers expected to be published in a peer-reviewed scholarly journal which have been disclosed using a server when the drafts are completed.
- (*6) Committee on Publication Ethics (COPE) (2005), “Salami Publication,” <http://publicationethics.org/case/salami-publication>.