

Reflections on Establishing and Improving an Early Warning System for Academic Journals (Postprint)

Authors: Wang Dan, Zhang Xianghe, Zhao Haoyu

Date: 2023-10-08T00:00:00+00:00

Abstract

To strengthen the integrity construction of academic journals and improve their management systems, this paper expounds on the concept of an academic journal early warning system, analyzes the necessity and urgency of establishing such a system, and proposes targeted recommendations for its establishment and improvement. This is achieved through interpreting national policies on research integrity, employing methods such as investigation and research and literature analysis, and considering the current development status of academic journals. The paper proposes establishing and improving the “academic journal early warning system” mentioned in the Several Opinions from four aspects: establishing evaluation criteria and adjustment mechanisms, determining the authority of lists and institutions, strengthening publicity and enforcement, and establishing clear penalty standards. It further points out that establishing an academic journal early warning system is an urgent expectation of researchers, a necessity for academic journals to return to their original purpose, and a beneficial supplement to journal management methods. The establishment of an academic journal early warning list can serve as a warning and impetus for the standardized development of academic journals, and can also contribute to the promotion of national research integrity construction.

Full Text

Abstract

To strengthen integrity construction in academic journals and improve their management systems, this paper interprets national policies related to research integrity, employs methods such as investigation and literature analysis, and combines these with the current development status of academic journals to

elaborate on what constitutes an academic journal early warning system, analyze the necessity and urgency of establishing such a system, and finally propose targeted opinions and recommendations for its establishment and improvement. This article suggests establishing and improving the “academic journal early warning system” mentioned in the Several Opinions from four aspects: establishing evaluation criteria and adjustment mechanisms, determining the authority of the list and institutions, strengthening publicity and enforcement efforts, and establishing clear penalty standards. It also points out that establishing an academic journal early warning system is an urgent expectation of researchers, a need for academic journals to return to their original purpose, and a beneficial supplement to journal management methods. Establishing an academic journal warning list can serve as a warning and supervisory function for the standardized development of academic journals and can also promote national research integrity construction.

Keywords: Academic Journals; Early Warning System; Research Integrity; Academic Misconduct

Introduction

In recent years, under the “four only” talent evaluation mechanism that emphasizes only papers, titles, educational credentials, and awards, the number of domestic academic papers has repeatedly reached new heights, but their quality has deteriorated. Various forms of academic misconduct and corruption have proliferated. During graduation and professional title evaluation processes, fraudulent activities such as falsification, duplicate submission, plagiarism, fabrication of research data, and falsification of academic credentials have been frequently reported [1,2]. Although China has established regulations and institutional norms regarding research integrity, and relevant departments and institutions have issued multiple management provisions and systems, including the “Measures for Handling Scientific Research Misconduct in National Natural Science Foundation Projects (Draft)”, “Notice on Regulating Academic Journal Publishing Order and Promoting Healthy Development of Academic Journals” [3], “Five Prohibitions for Publishing Academic Papers” [4], “Measures for Preventing and Handling Academic Misconduct in Higher Education Institutions” [5], and particularly the “Several Opinions on Further Strengthening Research Integrity Construction” issued by the General Office of the CPC Central Committee and the General Office of the State Council on May 30, 2018 [6], which clarified the guiding ideology, basic principles, main objectives, and construction tasks for research integrity in the new era. However, loopholes remain, and violations of research integrity continue to occur driven by academic reputation and economic interests [7]. The 2017 retraction incident involving *Tumor Biology* set a world record for the number of papers retracted at one time by a legitimate academic journal [8,9]. Additionally, the “four only” mechanism has given rise to a complete industrial chain of paper ghostwriting and agency services, seriously affecting the pace of national research integrity construction.

The promulgation of the “Several Opinions on Further Strengthening Research Integrity Construction” (hereinafter referred to as the Several Opinions) fully demonstrates the state’s high regard for research integrity construction, explicitly stating that violations of research integrity requirements must be seriously investigated with zero tolerance and a lifelong accountability system. To better regulate journal behavior in research integrity construction, this paper provides an in-depth analysis of the third task in the Several Opinions—“establishing and improving academic journal management and early warning systems” —hoping to provide references for the state to further establish and improve these systems and measures.

1. What Is an Academic Journal Early Warning System?

As an important carrier of research achievements, academic journals constitute a crucial link in the entire research workflow, and their integrity issues represent a vital component of research integrity construction. Solving integrity problems in academic journals requires not only strengthening internal controls through management norms, rigorous peer review, and retraction mechanisms, but also enhancing external supervision from national management departments, public opinion, and peers. Currently, problems in academic journals such as charging high publication fees, indiscriminately increasing page numbers for profit regardless of paper quality, and irregular review systems have all contributed to the breeding of academic misconduct to varying degrees.

The Several Opinions clearly define the guiding ideology, basic principles, main objectives, and construction tasks for research integrity in the new era. The third construction task involves further advancing the institutionalization of research integrity, which explicitly proposes establishing and improving academic journal management and early warning systems. It recommends that authoritative departments or institutions publish lists of academic journals with serious academic misconduct and maintain tracking and dynamic adjustments. The document states: “The Ministry of Science and Technology shall establish an academic journal early warning mechanism, support relevant institutions in publishing domestic and international academic journal warning lists, and conduct dynamic tracking and timely adjustments. Academic journals that disregard academic quality, have chaotic management, prioritize commercial interests, and cause adverse impacts shall be placed on a blacklist.” To ensure implementation of this policy, the Several Opinions further recommend: “Institutions where paper authors work should strengthen management of their researchers’ papers, promptly warn and remind researchers who publish in journals on the warning list, and disallow recognition of papers published in blacklisted journals in all types of evaluations, while also prohibiting reimbursement of related publication expenses.”

Therefore, the Several Opinions not only clarify the purpose and significance of establishing an academic journal early warning mechanism but also provide specific operational guidance, playing a tremendous role in promoting integrity

construction in academic journals.

2.1 An Urgent Expectation of Researchers

When discussing the current state of research integrity in China, Academician Zhu Bangfen of the Chinese Academy of Sciences described it with two “unprecedented” characteristics: first, the breadth and severity of research integrity issues in China are unprecedented; second, the level of social concern about research integrity issues is unprecedented. The recently issued Several Opinions stipulate management responsibilities and tasks for research integrity for almost all departments involved in the research process. Among these, establishing an academic journal early warning system points to a new direction for journal management.

Some researchers engage in academic fraud fundamentally due to a lack of research spirit, but practically speaking, they are compelled by evaluation policies to obtain benefits through fraudulent means. Certain academic journals, either due to lax quality control or in pursuit of economic interests, have abandoned their original purpose of disseminating academic achievements. The existence of academic misconduct objectively damages research fairness, and the emergence of paper ghostwriting and agency services has further encouraged undesirable tendencies among some researchers seeking shortcuts and opportunistic behavior. News reports about academic misconduct and economic disputes arising from paper ghostwriting and agency services are common [10]. Establishing an academic journal early warning system can serve as a warning to students and researchers with opportunistic mentality, providing a safeguard for those who conduct research diligently and honestly.

2.2 A Need for Academic Journals to Return to Their Original Purpose

Academic journals are important channels for disseminating research achievements and vital platforms for academic discussion and debate. Their existence plays a significant role in promoting academic exchange and leading research innovation. Simply put, the primary mission of academic journals is to showcase research achievements and disseminate academic ideas. Therefore, academic journals must be able to distinguish truth from falsehood and publish truly valuable research results.

As shown in Figure 1 [Figure 1: see original paper], which displays the annual publication volume of a certain journal according to CNKI statistics, this journal drastically expanded its page count and published articles without restriction after being included in the core journal directory. Such journals should be placed on the warning list.

Establishing an academic journal early warning system will place on a blacklist those academic journals that disregard academic quality, have chaotic man-

agement, excessively pursue economic benefits, and cause adverse impacts on research integrity. This warning list will effectively deter these journals engaged in academic misconduct, providing a fair and just evaluation stage for the vast majority of researchers who conduct their work diligently.

3.1 Establish Clear and Explicit Evaluation Criteria and Dynamic Adjustment Mechanisms for the Warning List

Establishing an academic journal early warning system is necessary for research integrity construction and even more so for the healthy development of journals. However, the key question is: what kind of journals and which violations should warrant inclusion on the warning list? This requires relevant departments to first establish clear, explicit, and easily implementable evaluation criteria. The Several Opinions state: “Academic journals that disregard academic quality, have chaotic management, prioritize commercial interests, and cause adverse impacts shall be placed on a blacklist.” From this, we can see that blacklisted journals include four categories: (1) Journals that disregard academic quality—these refer to journals that publish papers based solely on “fame, power, or connections,” meaning they must publish papers by well-known authors, from prestigious institutions, or with major projects, as well as papers by senior leaders or those with connections, regardless of academic quality. (2) Journals with chaotic management—these refer to journals lacking editorial management systems and having disordered publication procedures, which are inevitably low-level journals with minimal social impact. Objectively speaking, such “small, miscellaneous, and chaotic” journals should indeed be cleaned up or rectified. (3) Journals that prioritize commercial interests—these refer to journals that charge excessive publication fees and one-sidedly pursue economic benefits. Like the journal shown in Figure 1, they have abandoned their original purpose and lost their value in disseminating research achievements. (4) Journals that cause adverse impacts—these refer to journals with serious academic misconduct that severely harm research integrity.

The focus of evaluation is not to punish journals but to promote their healthy development, standardize the research integrity system, and facilitate academic research. Moreover, the warning list should not permanently condemn certain journals but rather aim for their standardized development. The list should be dynamically adjusted, with adjustment cycles of either one or three years. Journals on the warning list should be given opportunities to return to proper development after rectification.

3.2 Establish the Authority of Institutions That Formulate the Warning List

The warning list for journals cannot be formulated by just any institution or department; the formulator must possess authority and credibility in publishing. The formulation process must be well-founded, with all indicators being fair and

transparent. Only lists formulated by authoritative institutions can be recognized and promoted, and only such lists will have deterrent power over journals. The Several Opinions state that the Ministry of Science and Technology shall establish the academic journal early warning mechanism and support relevant institutions in publishing domestic and international academic journal warning lists. Therefore, as the national research management department, the Ministry of Science and Technology bears an unshirkable responsibility in establishing this early warning mechanism.

It is recommended that relevant institutions publishing the warning list, such as major literature databases like CNKI, Wanfang, and VIP, identify journals that should be blacklisted based on data from all academic journals according to the evaluation criteria. Additionally, due to the wide variety of journals across different industries and fields, the list should be categorized by industry. With reference to objective journal indicators, the opinions of experts in the respective fields should be incorporated to obtain comprehensive results—meaning the list's indicators should combine objective metrics with subjective assessments.

3.3 Strengthen Publicity and Enforcement of the Warning List

Whether the warning list can enhance research integrity and provide normative guidance for journal development depends on relevant departments' publicity efforts. The Several Opinions recommend: "Institutions where paper authors work should strengthen management of their researchers' papers, promptly warn and remind researchers who publish in journals on the warning list, and disallow recognition of papers published in blacklisted journals in all types of evaluations, while also prohibiting reimbursement of related publication expenses." Based on this recommendation, national press and publication management departments and research evaluation departments should not only fulfill their management functions by requiring subordinate institutions to publicize the early warning system and publish warning lists through various media channels but also ensure that every researcher understands this policy and avoids publishing in journals on the warning list.

On the other hand, researchers themselves—as direct participants in research integrity construction—should consciously act as publicists, appropriately promoting research integrity policies to peers and students in suitable settings, making all researchers and journal editors aware of and attentive to the warning list. Furthermore, enforcement of published warning lists must be strict to truly achieve the purpose of punishment.

3.4 Establish Penalty Standards for Journals on the Warning List

As the saying goes, laws must be followed and enforcement must be strict. After establishing the warning list, corresponding penalty standards should be

implemented. The penalty standards must hit journals where it hurts without permanently destroying them. The worst scenario is when the penalty is threatened severely but executed lightly. This not only fails to achieve the goal of standardizing journal development but instead encourages the atmosphere and arrogance of academic misconduct in journals. It is recommended that penalty levels include at least four tiers: warning, rectification within a time limit, suspension, and cancellation of the publication license. The specific parameters of the penalty standards need to be jointly determined by relevant departments and the publishing industry.

Conclusion

Research integrity construction is a systematic project involving multiple institutions, departments, and industries, with a long and arduous task ahead. Establishing and improving an academic journal warning list can serve as a warning and supervisory function for the standardized development of journals. Based on describing the current state of academic integrity, this paper introduces the main content of the newly released Several Opinions, analyzes the necessity of establishing and improving the academic journal warning list, and proposes recommendations from four aspects: establishing evaluation criteria and adjustment mechanisms, determining the authority of the list and institutions, strengthening publicity and enforcement, and establishing clear penalty standards, hoping to provide references for the establishment of such lists.

References

- [1] Liu Pu. Current Status and Governance Path of Academic Misconduct Issues in China—An Analysis Based on 64 Typical Cases of Academic Misconduct Reported by Media[J]. China Science Foundation, 2018, 32(6): 637-644.
- [2] Lu Shan. Analysis of Causes of Academic Misconduct in Higher Education Institutions[J]. Science Popular (Science Education), 2018(12): 122.
- [3] Notice on Regulating Academic Journal Publishing Order and Promoting Healthy Development of Academic Journals[DB/OL]. <http://www.gapp.gov.cn/news/1663/199178.shtml>. 2014-04-14.
- [4] Five Prohibitions for Publishing Academic Papers[Z]. China Association for Science and Technology Issuance Group Character (2015) No. 98.
- [5] Measures for Preventing and Handling Academic Misconduct in Higher Education Institutions[Z]. Order No. 40 of the Ministry of Education of the People's Republic of China, 2016-6-16.
- [6] Several Opinions on Further Strengthening Research Integrity Construction[DB/OL]. http://news.youth.cn/gn/201805/t20180530_{11632802}.htm.
- [7] Yang Zhu. Analysis of Paper Retraction Behavior in Academic Misconduct Incidents[J]. Science-Technology and Publication, 2018(10): 165-169.

[8] Wang Wei. Chinese Scholars Retracted 107 Papers Again, Severe Punishment Still Needed for Academic Misconduct[J]. Science and Technology Review, 2017, 35(9): 9.

[9] Du Li, Shang Weifen. Effective Strategies for Strengthening Peer Review Work in Scientific Journals[J]. Acta Editologica, 2017, 29(S2): 39-41.

[10] Liao Shan, Long Yunfei, Qin Yuelong. Investigation and Analysis of the Industrial Chain of Academic Journal Paper Agency Services[J]. Chinese Journal of Scientific and Technical Periodicals, 2011, 23(4): 606-.

[11] Ye Qing, Yang Shuqi, Zhang Yuehong. Research Integrity is a Global Eternal Topic—The Integrity Environment of China’s Research Management and Academic Publishing[J]. Chinese Journal of Scientific and Technical Periodicals, 2015, 26(10): 1040-1045.

(Author Affiliations: 1. Editorial Office of *Journal of Bionic Engineering*, Jilin University; 2. Editorial Office of *Journal of Jilin University (Engineering and Technology Edition)*, Jilin University)

Note: Figure translations are in progress. See original paper for figures.

Source: ChinaXiv –Machine translation. Verify with original.