Abstract

The article reflects findings from a research into the issues of non-compliance of articles submitted to scientific journals in Uzbekistan, with international requirements. The purpose of the study is to identify mistakes made by writers of scientific articles, as well as to develop a methodological guide that will help to improve scientific texts’ writing skills, that will therefore increase the number of scientific articles in international editions with a high index. The study taken place between 2019 and 2022 involved a critical review of over 620 articles of the scientific journal of “Science and Innovative Development” for genre- and compositional aspects, system and semantic, syntactic and communicative-pragmatic features. The research was made using theoretical and empirical scientific methods. Each scientific article was reviewed for plagiarism using special software, as well as was subjected for technical and scientific expertise. Based on the research findings, a special form was developed to help experts to determine compliance of scientific articles with international standards, as well as with requirements for writing scientific articles. The need for training of researchers and scientists in academic writing and proper design of scientific articles has been determined. The data obtained will be used as a material for seminars and training of writers in the design and writing of scientific articles.

Keywords: Scientific Article; Technical Expertise; Scientific Expertise; Plagiarism; International Databases; International Requirements; Scientific Methods

Introduction

A scientific article is the main of scientific discourse and one of the written types of scientific communication, as well as one of the main mechanisms for the development and popularization of science, strengthening the intellectual cooperation of scientists and finding new solutions to scientific problems, popularizing the results of scientific activity. That is why, in order to develop science, to fulfill the task of bringing scientific activity to the level of world standards, it is necessary to establish scientific communication, to formalize at the required level a scientific article, which is its tool.

In the course of the study, it was revealed that domestic scientists face a number of difficulties in writing scientific articles and publishing them in international journals, despite the fact that their research
Non–Compliance of Articles Submitted to Scientific Journals of Uzbekistan with International Requirements

is very relevant and has high scientific significance and novelty. This can be explained not only by the lack of skills and experience in writing and designing scientific articles in accordance with international standards, but also by the lack of necessary literature in the native language on this topic. Those authors who speak English and Russian prepare articles based on brief recommendations posted on global network sites, which also cannot replace a complete theory for writing and designing a scientific article. It is not hard to imagine what difficulties young doctoral students and scientists who do not speak foreign languages face. As a result, a large number of articles written by them end up in “predatory journals”.

Considering that domestic scientists could make a significant contribution to the development of world science by publishing more articles in international scientific journals with a high rating, today the issues of researching the genre of a scientific article, its types and compositional elements, the application of the scientific apparatus, systemically–semantic, syntactic and communicative–pragmatic features. Also, the solution of these problems will help to eliminate the main shortcomings in the preparation of scientific articles, which justifies the scientific novelty and relevance of the chosen topic for scientific work. In addition, during the study, the task was to develop requirements for the design of scientific articles in accordance with international standards, as well as a textbook based on a theoretical study of the genre of a scientific article and its types.

The genre of a scientific article has been theoretically studied in the works of foreign researchers such as M. Davis [1], R.A. Day and B. Gastel [2], A.G. Gross, J.E. Harmon and M. Reidy [3], J. Hartley [4]. In the scientific works of these scientists, the structure of a scientific article is mainly described, that is, its components–compositional elements.

The theme of the genre and types of scientific articles was also studied by Russian researchers, such as I.V. Sviderskaya, V.A. Kratasyuk [5], E.I. Arkhipova, O.A. Kazakova [6], A.B. Ponomarev [7], A.M. Novikov, D.A. Novikov [8], E.O. Sidorov [9], I.N. Kuznecov [10], N.V. Barkovskaya, O.Yu. Bagdasaryan [11], O.V. Kirillova, S.L. Parfenova, E.G. Grishakina, A.V. Kuleshova, E.M. Bazanova, E.G. Doronina, M.M. Zeldina, K.A. Bezrodnov [12].

In particular, E.I. Arkhipova and O.A. Kazakova [13] in their scientific works pay attention to the issues of scientific discourse, including the main and particular characteristics, the genre of a scientific article.

In the work of A.B. Ponomarev [7] reviewed the fundamentals of scientific research methodology, the stages of scientific research, including the choice of research direction, the formulation of a scientific and technical problem, the conduct of theoretical and experimental research, the presentation of the results of scientific work, scientific article, various levels of scientific knowledge are discussed.

In his work, E.O. Sidorova [9] describes the theoretical and methodological foundations of writing a scientific article, in particular, describes the structure and types of a scientific article, presents in detail the procedure for its design, and also affects the compositional elements of a scientific article.

Unfortunately, the scientists of Uzbekistan have practically not studied this topic, there is no literature on this topic. The textbooks mainly describe analytical genres, it is only noted that the scientific article is published in scientific journals. There is practically no information about the genre and types of a scientific article, its modern interpretation and composition. For example, in the textbooks of M. Khudoykulov [14], Kh. Saidov, A. Nurmatov [15], analytical genres are defined and described, while the genre of a scientific article is not affected at all. The methodological manual by N. Toshpulatova [16] provides information about the features of the “scientific and educational” article from a general perspective.
In the course of the study, not only theoretical information about the genre of a scientific article and international requirements for its design are studied, but also common mistakes and shortcomings made by domestic authors when writing a scientific article, with the aim of further eliminating them and creating a textbook taking into account these features.

**Materials and Methods**

The scientific journal “Science and Innovative Development”, operating under the Agency of Innovative Development of the Republic of Uzbekistan, was chosen as the object of study, 621 materials published in this journal during 2019–2022 were studied and analyzed.

In the process of research, the following set of methods was used: theoretical (analysis and synthesis, induction and deduction, generalization) and empirical (observation, comparative analysis, experiment) methods.

**Results and Discussion**

In the course of the study, genre–compositional aspects, the use of the scientific apparatus, systemic–semantic, syntactic and communicative–pragmatic features of 621 (Figure 1) scientific articles received by the editors of the journal “Science and Innovative Development” during 2019–2022 were studied. Based on the obtaining results, the main shortcomings in the preparation of scientific articles were identified.

In the process of studying the articles, explanatory work was carried out with the authors, and the articles were checked in two stages–technical and scientific expertise.

![Figure 1. Submitted articles in 2019–2022 to the editorial office of the scientific journal “Science and Innovative Development”](image)

During the inspection, the following were checked: whether the article sent to the editor corresponds to the genre of the scientific article, and the compositional structure–to the requirements developed by the editorial board; the presence of plagiarism in the text of the article, i.e. amount of borrowings from other sources. The materials sent by the authors were checked through the anti–plagiarism program.
Articles that did not pass the technical examination were returned to the authors. Figure 1 shows that the number of articles returned in 2019 accounted for more than half of the total number of articles. These articles were returned to the authors with detailed instructions for revision in accordance with the requirements developed by the editors. In addition to the correct design of the compositional elements of a scientific article (title, information about authors, abstract, keywords, sources and literature), special attention was paid to the main text of a scientific article. It was developed in the form of a table as part of the study, taking into account the main shortcomings made by the authors when writing scientific articles (Table 1). It was explained to the authors that this characteristic for each individual element of the main text of a scientific article should not be taken as a strict rule for design, but should be followed taking into account their research.

Table 1. The requirements for the main text of a scientific article

<table>
<thead>
<tr>
<th>Section</th>
<th>Requirements</th>
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<tbody>
<tr>
<td>Introduction</td>
<td>– Substantiation of relevance and novelty of the topic;</td>
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<td></td>
<td>– how other authors approached the solution of the problem posed in the article, what methods they used, etc. (literature review);</td>
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<td></td>
<td>– A description of the problems and gaps identified and not explored in the literature used;</td>
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<td></td>
<td>– Substantiation of the specific purpose of the study and the problem to be solved based on the identified problems.</td>
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<tr>
<td>Materials and methods</td>
<td>– By whom, where and when studies and experiments were carried out (detailed content);</td>
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<td>– substantiation of applied methods, methodology and objects of research.</td>
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<tr>
<td>Results and discussion</td>
<td>– Analysis of the dynamics of the main indicators characterizing the object of study (within the framework of the data that will become the basis for solving the problem posed in the article) and conclusions;</td>
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<td></td>
<td>– Obtained scientific and practical results, analysis of their effectiveness and reliability.</td>
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<tr>
<td>Analysis of the results of the research</td>
<td>– The author analyzes the facts, substantiates his opinion, states which of them he approves and which he denies, and explains his views;</td>
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<td></td>
<td>– Analysis of the obstacles and problems in the field of science that arose during the study;</td>
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<td>– Analysis of various methods, comparison of research results with the results of other studies.</td>
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<tr>
<td>Conclusions</td>
<td>Conclusions and recommendations arising from the results of the author’s research.</td>
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<td>Acknowledgment</td>
<td>Acknowledgment is expressed to the organization(s)/colleagues who have assisted in implementation of the study or writing the article, as well as to the organization(s) that has/have financed the study/project (project number, name of the organization is written in full).</td>
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Articles that passed technical expertise were sent for scientific expertise to members of the Scientific and Technical Council established under the Ministry of Innovative Development of the Republic of Uzbekistan, and members of the editorial board of the journal.

During the scientific examination, the experts checked: the presence of relevance, practical significance and novelty of the topic; availability of author’s judgments, conclusions and recommendations on the topic; the reliability of the facts stated on the subject; links to information from other sources; the novelty of the literature used and the availability of foreign sources.
Based on the results of scientific expertise, articles with a positive conclusion of scientific expertise were published in the journal. Articles with a negative conclusion were returned to the authors. The shortcomings of the articles recommended for revision were shown in the review by a scientific expert and sent to the author. After the author corrected the shortcomings, the article was sent for re-examination, this process continued until a positive opinion of the scientific expert was received (the revision process could reach up to 2–3 times).

During the analysis of the articles, the following results were obtained:

1. Most authors submitting an article to a scientific journal do not have a clear idea of the genres and types of scientific materials;
2. In many cases, when preparing a scientific article, its compositional features are not taken into account;
3. The components of a scientific article, such as the title of the article, information about the authors, abstract, keywords, main text, list of references are not properly formatted;
4. Scientific novelty, relevance and practical significance of the research are an important component of scientific work, but most authors do not include these concepts in the content of a scientific article;
5. When writing an article, the academic style of presentation is not used. Basically, the rules of semantics, syntax and pragmatics are not observed. As a result, the communicative effect of a scientific article is reduced;
6. The principles of scientific discourse are not respected. At the same time, cases of impossibility to reflect the research conducted by the authors, its specific purpose and relevance in the expression of written speech are noticeable. As a result, the scientific apparatus is not respected and the general structure of the scientific article is violated;
7. Articles written based on the results of empirical and fundamental research do not differ from each other. Indeed, when writing a scientific article, depending on the field and direction of research, scientific discourse differs, the characteristics of scientific methods change.

**Analysis of the Result of the Research**

A scientific article, as the main written genre of scientific discourse, obeys the laws of globalization and serves as a universal means of communication for scientists. An important requirement for scientists is to write scientific articles in accordance with international standards. The main part of a scientific article, sections and the order of their execution differ depending on the types of scientific articles.

In the course of the study, the types of scientific articles were specified, namely: scientific and theoretical, scientific and practical, scientific and methodological, literature review and case studies. The procedure for formatting the text of each type of scientific articles was also developed in detail.

During the research, a number of problems were encountered, which are manifested in the following: in the imperfection of automated programs that check articles for plagiarism. During the study, at least 4 programs were used. Each of them had its shortcomings. It was necessary to exclude those fragments of the text that the program scanned as plagiarism, and when using the method of mathematical calculation, display the percentage of borrowing; articles previously published in other publications were submitted to the editorial office. It is difficult for the authors to convey the inadmissibility of this moment.
Conclusion

According to the results of the study, the types of scientific articles and their compositional elements were specified. Each compositional element for a particular type of scientific article was given a detailed description and recommendations for their design in accordance with international requirements.

Also, in order to improve the quality of scientific publications, the requirements in three languages for scientific articles submitted to the editors of scientific journals were developed and put into practice.

Based on the results of the study, the following recommendations are presented as a solution to the identified problems and shortcomings: preparation and publication of the textbook “Scientific article, its types and compositional elements” in the state language; creation of didactic foundations for teaching doctoral students, undergraduates and students according to the developed teaching aid; organization of special educational courses at each university and inclusion in the educational process (magistracy) of a separate subject “Preparation of scientific articles”.

It is possible to improve the quality indicators of scientific articles by putting into practice the above proposals and recommendations and eliminating the identified problems and shortcomings. This, in turn, will raise the rating and level of local scientific journals and ensure a positive result of the reforms carried out by our state in the field of science.

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