

ПЕДАГОГИКА ЖӘНЕ ПСИХОЛОГИЯUDC 140.8
МРНТИ 02.31.21DOI: <https://doi.org/10.37788/2022-3/9-13>**B.D. Kairbekova^{1*}, A.T. Kabbasova¹, L.S. Kantarbayeva¹**¹Innovative University of Eurasia, Kazakhstan

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An innovative way of writing a scientific article**Annotation**

Main problem: In the modern world, anyone can publish an article in a scientific journal, for example, a student, undergraduate, specialist or young scientist. But the most important reason is that among the authors questions arise, such as: how to write a scientific article for a student, undergraduate, doctoral student, what is a scientific article, for whom do we write it and where can we publish it.

In conditions of uncertainty, it is necessary to understand what a scientific article is and the answer immediately suggests itself, a scientific article is the discovery of new facets of knowledge and opportunities, as well as obtaining invaluable knowledge for other scientists. In addition, scientific articles, unlike others, are official publications, which will favorably affect the student's reputation and his career ladder after graduation, which determined our choice to take up this work, how to write a scientific article.

Use the traditional way of writing a scientific article: according to the typical structure, see the description of a scientific article below, under the guidance of a supervisor, where more than 80 % will be written by a supervisor, buy a finished article (the entire Internet is filled with information about services in writing scientific articles, including), etc.

And there is the best way – an innovative way of writing a scientific article.

Purpose: to make an overview analysis of traditional and innovative writing of a scientific article on the example of existing norms and algorithms for writing scientific articles in the Republic of Kazakhstan using the objective principles of unity and functional integrity of the natural world and innovative methodological tools.

Methods: a genetically meaningful method of ascending from the abstract to the concrete, a speculative language of schematic representations of thought, a method of working with text.

Results and their significance: As an initial conceptual point of analysis of writing scientific articles, the need to bring traditional methods into line with the innovative requirements of the objective principles of the unity and functional integrity of the natural world, including man himself.

A conceptual model of the country's development has been constructed. The model contains a functional and systemic framework for the interaction of key actors, located on the territory of the country, framed by the basic law (Constitution) and methodological theory of activity. According to the constructed model, the functional interdependencies of all blocks determine the logical requirements for the content of writing a scientific article, and other normative legal acts of the development of science in the country as a whole. With the use of methodological tools and the conceptual model of the country's development, the key concepts are updated: article, science, society, state, development, scientific leadership, scientific research and scientific discoveries. The concepts of higher values, fundamental principles of scientific activity and the removal of contradictions in different understandings of writing scientific articles have been expanded.

Key words: science, scientific article, methods, paradigm, thinking, pedagogical and scientific activity.

Introduction

All scientific research and discoveries must be accompanied by scientific articles in order to discuss and familiarize the scientific community with new developments in science. At the same time, there are requirements and rules for writing scientific articles, and there is a pattern of their obsolescence, which means there must be a way to update the norms for writing scientific articles. But let's start everything in order, first we will outline the traditional approaches to writing scientific articles, and then we will offer innovative approaches to writing a scientific article. I think that no one doubts the need to update the traditional norms and rules for writing scientific articles, since tens of thousands of scientific articles remain unclaimed, and they continue to fill the shelves of scientific libraries, including Internet libraries. At the same time, it is time to propose innovative approaches to writing scientific articles [1-4].

It is necessary to consider the concept of a scientific article in various dictionaries and reference books.

1. Scientific article is a mini-study for a narrow circle of readers, the purpose of which is to highlight and solve a problematic issue in the chosen scientific field. In a scientific article, the author expresses his vision of the problem and draws conclusions based on the results obtained.

2. A scientific article is a logically completed study of a problem, carried out through the application of the scientific method. This is the concept of a scientific article in its most simplified form.

3. Scientific article – a finished author's work describing the results of an original scientific research (primary scientific article) or devoted to the consideration of previously published scientific articles related to a common theme (review scientific article). In a primary scientific paper, the author(s) present essential information about the research they have done in a form that allows others in the scientific community to evaluate the research, reproduce the experiments, and evaluate the reasoning and conclusions drawn from it. A review scientific article is intended to summarize, analyze, evaluate, summarize or synthesize a previously published information (primary scientific publications). Often a scientific article combines these two types of scientific text, including a review and an original part.

4. A scientific article is a study on one of the selected specialized topics, presented in a short written form. This type of author's work is distinguished by a clear structure and a competent relationship between cause and effect. Such an article may be the result of a scientific experiment or experience, or a review of already published publications.

5. A scientific article is an author's research on a specific topic, presented in a short written form.

Typical structure (plan) for writing a scientific article in the traditional way.

A typical structure is an approximate example of how a scientific article should look like in terms of subheadings and parts within the content. What the structure of a scientific article consists of will be prompted by the training manual of an educational institution or a ready-made sample, including 7 points:

1. Collection of literature on the topic of a scientific article;

2. Abstract – that is, a review article is a short content of the article, as it were, a presentation of the work. Here, the main issues will be considered, which will be described in detail in the main part of the study. The goals of the annotation are based on several criteria:

- the relevance of the work;
- a clear statement of the problem;
- proposed ways to solve the problem;
- results and conclusions.

All these questions should be considered briefly in one sentence in order to morally prepare the reader for the further text and intrigue him;

3. Introductory part – in this part, the relevance of the problem is necessarily considered, attention is focused on the novelty of scientific research, goals and objectives (this was mentioned above);

4. The main part – here it is proposed to analyze the literature and sources of information strictly on the topic, collected by the author of the work. The objectives of the main part are as follows:

- determination of the research hypothesis;
- a detailed story about the study;
- a list of the results of the study;
- useful advice from the author on the application of new information;
- clear concretization of the result of the article;
- additional explanation of the results.

The main part is presented, clearly focusing on all these goals. Thanks to this, each argument given by the author will be the main pivot on which the article is attached. It is good if this part of the structure is divided into a base and subsections, and not located in a hollow sheet of letters;

5. Conclusion – here the results of the research work of the performer are briefly discussed, but with an emphasis on the usefulness of the information and advice on applying new knowledge;

6. References – after the text of the article, a list of sources must be attached, they must be referenced in the text. If you look through the list of references, you can understand in advance the depth of the research work of the performer and his scientific positions. In addition, no one will accuse him of plagiarism if the ideas of other authors are recognized in the list of references;

7. Keywords – is a guide for future readers, acting as the semantic core of the article. It can include both single words and phrases and phrases.

During the preparation of the article, theses from the structure “introductory, main part and conclusion” are not designated as subheadings. Tips for writing a good student research paper. Knowing what a scientific article is, what types there are, and what are the requirements for writing it, it is important for the student to consider a few more important and valuable tips on creating and designing a paper:

1. Consult with your supervisor or teacher. This is especially important if this is the student's first scientific work. No teacher at a university or academy will refuse to assist a student. At the end, the teacher will suggest a place where it will be possible to publish the work, for example, in a newspaper or a well-known magazine.

2. Involve collaborators in your activities. Practice shows that collective work becomes more interesting for all authors, and also enjoys greater popularity and success. A co-author can be a graduate student, student and teacher.

3. It is important to use terms, definitions. The terminology must comply with the current regulatory legal acts and be relevant according to the subject of the article.

4. Pay special attention to the design of the article. Important criteria are the font, its size, margins, paragraphs, line spacing, the design of tables, images, diagrams, and captions to them.

5. After writing the text, it is important to determine its uniqueness and grammar. To identify errors, the text will need to be read several times. Co-authors and various resources on the Internet can help. The requirements for publishing a work in a journal regarding uniqueness are from 80-90 % and above.

If, during the writing of the article, the author indicates a link to any author or his work, framing this piece of text with square brackets, then plagiarism is allowed. Rules for preparing an article, each educational institution or journal has its own individual requirements for the design of papers by students, undergraduates, etc. if they are not provided, then standard requirements according to GOST (State standard) come into force. As for the design of a scientific article, in this case, GOST (State standard) offers several rules.

The innovative method that we offer to readers and in particular students and undergraduates must first be studied, passed through themselves and started working with it, so this is the only right way at this time to learn how to write scientific articles, based on a logical presentation of your idea, on reflective thinking, which will teach put everything on paper, i.e. show using the method of schematic images and teach you how to work with any text (material) using the method of working with text. We got acquainted with the innovative way of work recently, thanks to the seminars and the monograph "Innovative methodological guidelines for the teacher's systemic thinking" by Tsoi V.I., where it is proposed to know the main types of reflection described using the so-called "reflexive workbench" to assess the quality of the subjects' thinking [2].

The content of the "boards" of the reflective "workbench":

1. – empirical images of the situation;
- 2.1 – projects;
- 2.2 – strategies
- 3 – problems;
- 4.1 – concepts;
- 4.2 – concepts and categories;
- 4.3 – methods, principles and approaches;
- 5.1 – values;
- 5.2 – picture of the world (whole)

Reflection is the main mental mechanism for revealing the personal intellectual and professional potential of a person, overcoming difficulties in practice.

Using an innovative way of writing a scientific article, we see the whole (value, idea, mission on the scale of the country's development). Innovation is a way of overcoming typical difficulties in practice, i.e. in practical activities, if there are difficulties in practice, then we don't know something (theory), or we don't know how to do something (skills and skills).

It is through writing a scientific article that one can pose a problem and reveal the problem of typical difficulties in practice, as well as propose this problem for discussion. The article is the result of reflection and methodological examination of problematic situations in practice, for the solution of which we single out the following tasks:

- self-determination to problem situations (in this case, how to write a scientific article, what tools, methods and techniques are available, how to learn to write quickly and efficiently);
- what is the subject of thought (to learn to see the whole and how to independently decompose this whole into functions);
- value bases of the scientific article "How to write a scientific article".

A scientific article is a necessary procedure for presenting your own ideas, thoughts and research, here it is important to identify your own difficulties to study them and determine whether they are typical in society, if so, then the second step is to describe typical difficulties and start looking for ways to solve them.

Typical predicaments are the key to his problem solving, but the difficulty lies in correctly identifying (typical) predicaments. To do this, firstly, it is necessary to build a functional series of a scientific article, let's try to define it: self-determination (to write a scientific article) – the subject of thought (difficulties in writing a scientific article) – value bases (overcoming difficulties in writing an article for yourself, demonstrating a way to overcome difficulties for others) – traditional and innovative approaches to writing an article (idea – questions – paired categories – scheme or algorithm for writing an article). Derivation of paired categories of a functional series for writing a scientific article: question – answer, cause – effect, problem – task, whole – part, beginning – end.

Results

When analyzing and recommending how to write a scientific article, it is necessary to use the previously built functional-system framework for the interaction of the key subjects of the country, derived in the logic of the Higher Attestation Commission from the functional model of the system object [5]. The functional-system framework is necessary from the position of the whole, it is impossible to work with a part without knowing and not seeing the whole, we are all in a certain territory and are framed by the country's basic law - the Constitution and a more abstract methodological theory of activity [6]. In this article, we tried to identify the problem of how to write a scientific article in the next issue, we are preparing the article "How to think and write a scientific article".

Discussion

The main theses and conclusions of the study were discussed and approved by the participants of many seminars, conferences, round tables organized by the Innovative Eurasian University and others.

As a means of analyzing and reconstructing this material, we used the genetically meaningful method of ascent from the abstract to the concrete, the speculative language of schematic representations of thought, and the method of working with text [7].

These methodological tools allow not only to single out mental images – these are images in thinking or mental images).

It is important for us to teach and learn to think in images and schemes, which will make it possible to see the whole, in other words, to learn how to deduce a logical chain from the particular to the whole and, conversely, from the particular to the whole.

To learn and teach to deduce logical chains from various oral and written author's definitions, not just to deduce in writing or orally, but also to visualize, i.e. build and then reconcile their points of view.

The starting conceptual point in the discussion was the thesis about the need to bring the content of writing a scientific article, how to think, to write, how to write, to see the images of what is written, it is important to see what you write about and how you write in accordance with the requirements of objective principles of unity and functional integrity of the natural world, including the person himself.

Conclusion

As a result of the study, the following conclusions were drawn:

- it is required to update the paradigm of scientific and pedagogical thinking according to the criteria of the functional integrity of the natural world, morality, logic, constructiveness, transparency, unambiguity using the genetically meaningful method of ascent from the abstract to the concrete, the speculative language of schematic images and the method of working with text;

- this will be the logical basis for updating the entire paradigm of thinking and activity of subjects in writing an article in particular;

- the constructed logical chain when writing a scientific article is evidence that the subject is the mechanism of disclosure and realization of the potential of thinking, since the highest values of any state are the personal spiritual, intellectual and professional potential of each person, as well as the earth, its subsoil, water, vegetation and wildlife, which are the most important conditions for the life of the people;

- the main idea of any scientific article is the value basis for which the scientific article is written, what problem it solves, what typical difficulties it helps to remove in practice.

- to teach how to write a scientific article is, first of all, to form a civic identity, the harmonious development of the country and improving the quality of life of the people by creating conditions for the disclosure, mobilization and realization of the personal spiritual, intellectual and professional potential of each person in the logic of the development of an integral natural world.

The main condition for the accelerated formation of civic consciousness, self-development, self-education, self-analysis, self-control, self-criticism is the need to learn and teach how to write scientific articles in the logic of the whole.

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Ғылыми мақала жазудың инновациялық тәсілі

Қазіргі заманда студент, магистрант, маман, жас ғалым да, кез келген адам ғылыми журналға мақала жариялай алады. Бұл ретте авторлардың мақала жазу принциптері, оны баспаға жариялау үшін жылжыту тәртібі туралы сұрақтар жиі туындайды. Авторлар білімнің жаңа қырлары мен жаңа білім алу мүмкіндіктерін ашатын ғылыми мақаланың жұмыс анықтамасын ұсынады. Осыған байланысты ғылыми мақала жазудың инновациялық тәсілі негізделді, ол ресми басылым бола отырып, университет түлегі портфолиосына еніп, жұмысқа орналасу кезеңінде оның беделіне оң әсер етеді.

Мақаланың мақсаты – Қазақстанда қабылданған нормалар мен алгоритмдер контекстінде ғылыми мақала жазудың дәстүрлі және инновациялық принциптеріне шолу жасау, табиғат әлемінің біртұтастығы мен функционалдық тұтастығы туралы академиялық идеялар мен инновациялық әдістемелік құралдар. Талдау барысында дерексізден нақтыға көшудің генетикалық мағыналы әдісі, ойды сызбалық бейнелеудің ойбағамдық тілі, мәтінмен жұмыс істеу әдісі сияқты әдістер қолданылды.

Мақалада ғылыми мақала жазудың мазмұнына қойылатын талаптар қазақстандық қоғам дамуының жаңа концептуалды моделімен айқындалуы керек деген тезисті суреттейді. Осының аясында «мақала», «ғылым», «қоғам», «мемлекет», «даму», «ғылыми жетекшілік», «ғылыми зерттеу», «ғылыми жаңалықтар» сияқты негізгі ұғымдар іргелі жаңарудан өтті, жоғары құндылықтар ұғымы кеңейді. Ғылыми қызметтің іргелі принциптері және ғылыми мақалаларды жазу принциптерін әртүрлі түсінудегі қайшылықтар жойылды.

Түйінді сөздер: ғылым, ғылыми мақала, әдістер, парадигма, ойлау, педагогикалық және ғылыми қызмет.

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Инновационный способ написания научной статьи

В современном мире опубликовать статью в научном журнале может любой желающий, будь то студент, магистрант, специалист или молодой ученый. Вместе с тем у авторов зачастую возникают вопросы о том, каковы принципы написания статьи, порядок её продвижения в издательство для опубликования. Авторы предлагают рабочее определение научной статьи, которая открывает новые грани знаний и возможности в получении новых знаний. В этой связи обосновывается инновационный способ написания научной статьи, которая, являясь официальной публикацией, может войти в портфолио выпускника вуза и благоприятно сказаться на его репутации в период трудоустройства.

Цель статьи – сделать обзорный анализ традиционных и инновационных принципов написания научной статьи в контексте принятых в Казахстане норм и алгоритмов, академических представлений о единстве и функциональной целостности природного мира и инновационных методологических инструментов. В ходе анализа были применены такие методы, как генетически содержательный метод восхождения от абстрактного к конкретному, умозрительный язык схематических изображений мысли, метод работы с текстом.

В статье иллюстрируется тезис о том, что требования к содержанию написания научной статьи должны быть обусловлены новой концептуальной моделью развития казахстанского общества. На этом фоне претерпели принципиальное обновление такие ключевые понятия, как «статья», «наука», «общество», «государство», «развитие», «научное руководство», «научные исследования», «научные открытия», расширены понятия высших ценностей, основополагающих принципов научной деятельности и сняты противоречия в различном понимании принципов написания научных статей.

Ключевые слова: наука, научная статья, методы, парадигма, мышление, педагогическая и научная деятельность.