



«Approved»

Chairman of the Board –Rector
of Korkyt Ata Kyzylorda University

[Signature] Karimova B.C.

October 30 2023y

PROVISION

**Publication of articles in the «Topical issues of teaching mathematics, physics
and information science journal»**

Kyzylorda, 2023

Information about the document

1. Developed by the Editorial and Publishing Division.
2. Approved and activated by the Chairman of the Board-Rector of Korkyt Ata Kyzylorda University from « October 30 2023 by order 430-9

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Definitions and Abbreviations

This Regulation uses the following abbreviation:

Kyzylorda Korkyt Ata University - Kyzylorda University named after Korkyt Ata.

MRNTI - international rubricator of scientific and technical information

GRNTI - Code of State Categories Scientific and Technical Information

DOI Digital Object Identifier, Идентификатор цифрового объекта.

1. General provision Topical issues of teaching mathematics, physics and information science journal

This provision on the publication of articles in the journal “Topical Issues in Teaching Mathematics, Physics and Computer Science” defines the rules for preparing for publication of scientific articles in the journal “Topical Issues in Teaching Mathematics, Physics and Computer Science”, registered in the Ministry of Culture, Information and Public Development of the Republic of Kazakhstan. Certificate of re-registration of periodicals, news agencies and online publications KZ80VPY00067265 from 31.03.2023.

Developed in accordance with:

- requirements for scientific publications to be included in the list of publications recommended for publication of the results of scientific activity, approved by Order 20 of 12 January 2016 Footnote. Item 2 - in the edition of the order of the Minister of Education and Science of Kazakhstan from 30.04.2020 170 (effective from 01.01.2021); with amendments made by the order of the Minister of Science and Higher Education of Kazakhstan from 09.01.2023 7 (effective 10 calendar days after the date of its first official publication).

2. Editorial politics and direction of the journal

«Topical issues of teaching mathematics, physics and information sciences journal» is published 4 times a year and contains information about scientific works of national and foreign scientists and materials of scientific conferences, scientific and methodical articles, scientific creativity of youth, information about the university life.

Tasks of the Editorial politics of «Topical issues of teaching mathematics, physics and information sciences journal»:

to contribute to the improvement of the quality of scientific research, the identification of scientific potential for the introduction of advanced scientific achievements;

Enable scientists and young researchers to publish their research results;

attention to the most relevant promising and interesting areas in the field of "mathematics, physics, computer science".

ensure interaction and involve leading domestic and foreign scientists in

publications, establish an exchange of views between researchers.

relationships of all parties (editors, authors, reviewers) are based on compliance with the requirements to the ethics of publications.

the authors are responsible for the factual material in the articles

Materials that have received a negative review and rejected by the journal are not published and not returned to the authors. The editorial office does not store rejected materials.

3. Ethics requirements for publication in the journal must follow the requirements below

All parties involved in the process of preparing materials for publication in the journal - authors, expert commission, reviewers, editorial board members - should follow the following requirements for publication ethics.

The Editor-in-Chief may consult with members of the editorial board and reviewers when making a decision, who shall be guided by the following rules:

- do not disclose information about the submitted manuscript to anyone except the author, reviewers, potential reviewers, other editorial consultants and, if necessary, the publisher.

- do not discriminate in the evaluation of the authors' submissions;

- not to disclose without necessity information about the materials accepted from authors, except authors, reviewers;

- take reasonable measures to identify and prevent the publication of articles in which the research has been improperly conducted, knowingly discourage, prevent such violations;

- consider facts or allegations of improper research behaviour;

- be prepared to publish corrections, clarifications, rebuttals and apologies where necessary.

In the publishing process authors are guided by the following rules:

- to work in full compliance with current legal requirements regarding libel, copyright, legality and plagiarism;

- to provide reliable results of the work done on the original study and an objective discussion of its significance.

- contain enough content to ensure a review of the work. False or deliberate erroneous statements may cause material to be rejected or a published article to be refuted;

- submitting the manuscript simultaneously to another edition is considered immoral and improper. The author must not submit to the magazine an article previously published in other publications;

- guarantee the complete originality of the presented material. If other authors' works or statements are used, relevant bibliographic references or excerpts are provided;

- do not allow plagiarism in any forms. The article should have at least 80% uniqueness of the text for publication.

- to follow the rules of autocitation (self-citation), namely, if the elements of the material were previously published in another article, including in the journal «Topical issues of teaching mathematics, physics and information sciences journal », the author is obliged to refer to an earlier work and advised to follow a self-citation rate of 0-10%.

- the number of authors of the article shall not exceed five;

- to disclose in their works information about funding, as well as the presence of interests of third parties, which may be perceived as having influenced the results or interpretation of their manuscript.

- informing the responsible editors in the scientific directions of the journal about a material error or inaccuracy in the work and providing constant contact with the editors of the journal to delete or correct the article.

- articles of editorial board members not more than one article in one issue;

The number of articles of one author in the issue of the journal should not exceed 2 (two) articles written separately and/or jointly.

4. Expert opinion and review of scientific articles submitted to the editorial office

Expert opinion and review of manuscripts of scientific articles for publication of journal «Topical issues of teaching mathematics, physics and information sciences journal» are carried out in order to maintain a high scientific and theoretical level of publication and selection of the most valuable and relevant (perspective) scientific works.

The Expert Commission may reject the materials and require the author(s) to bring them in accordance with the requirements of the scientific articles.

In order to ensure the quality of published materials and respect for copyright, all received materials are checked for borrowing. The verification of the program is carried out by the responsible employee of the university - «root administrator of the system», and only then are sent for review.

The authors, who send their articles for publication in the journal «Topical issues of teaching mathematics, physics and information sciences journal», express their consent to the publication of the article, to the placement of metadata of the article (full name author's and places of their affiliation, annotations, keywords, bibliographic list) in public access to the journal's website on the Internet, to transmit the text of the article (including links, bibliographic information, etc.) to persons and organizations to whom the information is obligatory, or to others in order to allow citation of the publication and to increase the index of citation of authors and journal, and confirm that the submitted articles were not published in other journals or submitted for publication in other journals.

The editorial office keeps a record of the passing of manuscripts procedure of expert evaluation and review.

The author(s) of the article sends the material to the consideration of the expert commission established by the order of the Chairman of the Board-Rector of Korkyt

Ata Kyzylorda University. In turn, the expert commission checks the article for compliance with the rules of registration.

Expert opinion (to scientists whose scientific orientation corresponds to the content of the article) is given by any scientist in the approved expert commission. The expert opinion is a protocol (Annex 1) and an opinion of a member of the expert commission, written and signed in an arbitrary form and certified by the scientific secretary of the organization (Annex 2).

After receiving the expert opinion, the author uploads (according to the instructions) through the site of the journal vestnik.korkyt.kz scientific article, written in three languages information about the authors, annotations, expert opinion of the article. The expert commission determines the compliance of the article on the profile of the journal, the requirements to the design.

The editorial board under the supervision of the chief editor checks the compliance to the scientific direction of the article submitted to the editorial office, and a decision is made on the acceptance or rejection of the article.

The responsible secretary checks the accepted articles in the program of antiplagiarism, after checking their compliance with the requirements specified in the technical design according to the instructions for authors. (The verification requirement in the program Antiplagiarism is fully described in the Rules of use of the system «Antiplagiarism».) The article, whose authenticity exceeds 80%, is sent for review.

The review procedure is carried out through the online submission and review system of articles, through «blind review» by a separate electronic site.

Reviewers are guided by the following rules:

- to work in full compliance with the editorial politics of the journal, taking into account the actual legal requirements regarding libel, copyright, legality and plagiarism;

- not to use unpublished materials obtained from submitted manuscripts for examination in personal research without written consent of the author;

- comply with review deadlines agreed with the responsible editors;

- notify the responsible editors and exclude yourself from the review process, feeling incompetent to review the research presented in the manuscript, or believing that a speedy review of the manuscript will be impossible.

- to consider any material received for review as a confidential document, not to disclose its contents and not to discuss with any persons other than responsible editors;

- to give an objective assessment of the materials submitted for review. Reviewers should express their opinion clearly and reasoned.

- to draw the attention of the editors-in-chief of the series to any significant similarities or coincidences between the manuscript in question and any other published work.

The review procedure includes the following steps:

1. The article is sent for review to the Doctor of Sciences, the Candidate of Sciences or PhD, whose scientific specialization is most close to the subject of the scientific article.

2. The review period may vary depending on the specific situation, but not more than 2 working weeks.

3. The reviewer cannot be the author or co-author of the peer-reviewed work, as well as the scientific supervisors of the candidate academic degree, PhD degree and employees of the department in which the author works. Reviews are discussed by the editorial board and serve as a basis for acceptance or rejection of manuscripts.

4. The review should objectively assess the scientific article and contain a comprehensive analysis of its scientific and methodical advantages and disadvantages. The review is based on the standard proposed revision (Annex 3, table on the site).

In the review should be briefly evaluated:

- general scientific level of work;
- the title and its correspondence to the content of the article;
- relevance of the topic;
- scientific novelty,
- the practical significance of the presented conclusions;
- work structure;
- debating and/or incorrect provisions;
- the positive aspects or shortcomings of the article are noted, what corrections and additions should be made by the author;
- the reviewer's opinion on the possibility or impossibility of publishing the manuscript is stated.

Copies of the content of the review shall be communicated to the author(s) within a week after the editorial office received the expert opinion.

The article sent to the author for revision must be returned in the corrected form within 10 days with the corrections marked in the article.

The editorial board reserves the right to reject the articles in case of inability or unwillingness of the author to take into account the wishes of the editorial board.

The originals of the reviews are kept in the editorial office of the journal «Topical issues of teaching mathematics, physics and information sciences journal », for three years. Including to be made available to competent authorities upon request.

5. Manual for authors of manuscripts

Ready scientific work for publication in the «Topical issues of teaching mathematics, physics and information sciences journal» can be submitted by the author (authors) through the system of online submission of articles on the site vestnik.korkyt.kz, using special instructions. The article should be written in Word format in Windows 10 in Times New Roman font (an article not written in accordance with this requirement will not be accepted automatically). Language of publications Kazakh, Russian, English.

Presenting the text of the work for publication in the journal, the author guarantees the correctness of all information about himself, the absence of plagiarism and other forms of wrongful borrowing in manuscripts, the proper design of all borrowings of the text, tables, schemes, illustrations.

The section " Topical issues of teaching mathematics, physics and information sciences journal " of the article aims to publish carefully selected works of research in the fundamental departments of mathematics, mechanics, and informatics.

All articles undergo a peer review procedure. Materials submitted for review are selected on the basis of novelty and general importance. All published articles are open and accessible.

Standard article sections are Introduction, literature review, material and methods, results and discussion, conclusion, gratitude (if any), and list of references (section titles do not change).

The journal does not publish materials that do not fit the topic, those published by the authors in other publications work with spelling, mathematical, and other uncorrectable errors, as well as conclusions and hypotheses that contradict established scientific facts.

The citation list in the article should contain only peer-reviewed literature sources, information sources that assign the DOI index according to the article structure.

Author's materials reflecting the results of scientific research in the article should contribute to the development of fundamental sections of mathematics, mechanics, computer science to which the material has been prepared. The text of the manuscript should be designed so that readers could understand the goals and objectives of the research, theory and methodology, the results obtained by the author, and the author's contribution to the development of a particular area of scientific knowledge. The author's conclusions should be justified and should not be based on or summarize known results. The text of the manuscript should be written in an academic scientific style and written in literate language. Completely copied and certain copied terms should be explained. It is recommended to avoid ambiguity in the interpretation of basic concepts and to avoid two meanings.

Structure and design of the article:

1. The size of the article ranges from 6 to 12 pages (without a list of references and annotations).

1. Description of the scheme of the article (page - A 4, book orientation, indents are calculated with respect to the left top and bottom sides page margins-2.5 m, with right - 2.0 m, Standard font : type - Times New Roman, size (font) - 12):

- the MRNTI index is the first line at the top left <http://grnti.ru> .
- DOI index (provided by the editorial office);
- Title of article – with capital letters, alignment on the center in bold, size (font) 12.

Initials and last name of author(s) - alignment on the center in bold, size (font) – 11 the number of authors of the article shall not exceed five.

- The full name of the organization, city, country (if the authors work in different organizations, it is necessary to put the same number near the name of the author and the relevant organization, e-mail address and orchid number of the authors,) - alignment on the center, italic, size (font) - 11.

- **Annotation** should be written in the original language and two other languages, for authors of the near and far abroad, the annotation should be in Russian and English, the editorial board of the journal should prepare a version in Kazakh (the number of words is 150-200; the abstract does not contain references to literature, size (size) - 11.

- **Key words** (in Kazakh, Russian, English from 5 to 10 words/phrases) size (font) - 11.

- **Main text** (12 font, line spacing - 1, indentation of red line#- 1.25 cm)

- Structure:

3) **Introduction:** rationale for the selection of the topic; relevance of the topic or problem; definition of the object, subject, objectives, tasks, methods, approaches, hypotheses and meanings of the work.

4) **Research materials and methods:** They should consist of a description of the materials and the progress of the work, as well as a full description of the methods used. This section describes how the problem was studied: detailed information without repeating previously published established procedures; identification of equipment (software) and description of materials are used, with mandatory novelty when using materials and methods. Tables and figures should be placed after the mention.

Each illustration should be accompanied by an inscription (size (size) – 11). Drawings should be clear, clean, not scanned. Names of figures and tables, bold 11 font. The indicators of the table are made out in font 11. The article numbers only those formulas that are referenced in the text. All abbreviations and abbreviations, with the exception of well-known ones, must be deciphered at the first mention in the text.

5) **Results and discussion:** analysis and discussion of the findings of the study.

6) **Conclusion/conclusions:** synthesis and summary of the work at this stage; confirmation of the truth of the allegation made by the author. The conclusions should be used to summarize the results of the research in a scientific field, describing proposals or possibilities for further work. Information about financial support for the work must be indicated at the end of the article.

7) **literature** (size (size) - 11, the number of literature used is not less than 15). 1) in alphabetical order in the language of the article without numbering; 2) Latin transliteration (<http://www.translit.ru>), within the framework of which an English translation is provided in vertical brackets, the citation list in the article must contain literary sources corresponding to the scientific direction of the article, as well as literature with the DOI index (or URL) (sample - Appendix 4).

The style of the list of references in Russian and Kazakh in accordance with the requirements according to GOST P 7.0.100 – 2018 "Bibliographic record. Bibliographic description. General requirements and rules of compilation".

8) information about the authors: (must contain the full name of the author(s), full name of the organization, city, country, contact details: phone, email, Orcid ID) in 3 languages. If the author does not have an Orcid ID, you must register with the Orcid ID at the link: <https://orcid.org/>.

9) Articles submitted to the editorial office, if they meet the requirements, will be conducted in accordance with anti-plagiarism procedures. The article, whose originality exceeds 80%, is sent for consideration to the editorial office. And the article below 80% is sent to the author to supplement(The cost of the first test of the article on originality in the program of antiplagiarism - 1500 tenge, when the same article is re-checked - 1000 tenge). After a positive review, the article is accepted for publication in the journal and the author is sent a notice of payment. The author must send the receipt of payment to the Editorial Office (matphin-vestnik@korkyt.kz).

Article cost: The cost of one article in the «Topical issues of teaching mathematics, physics and information science journal» is 5000 tenge.

The editorial board of the journal provides 3 days for each author to review their articles before publishing the latest version of the PDF version on the website of the University "Topical issues of teaching mathematics, physics and information sciences journal" <https://vestnik.korkyt.kz> and on the Crossref website <https://apps.crossref.org/webDeposit> / The final version of the journal will be published on the website after accepting the authors' reviews, responses, etc. The authors' notifications are not accepted and the editorial board is not responsible for subsequent identified errors.

Payment details

University address: 120014, Republic of Kazakhstan, Kyzylorda, Aiteke bi st., 29a.

Ministry of Science and Higher Education of the Republic of Kazakhstan

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Commission Chairman _____
 (scientific degree, full name)

Commission members _____
 (scientific degree, full name)

Commission Secretary _____
 (scientific degree, full name)

We listened to the report of the expert _____ (academic degree, full name) about the article _____ (academic degree, full name of the author(s)) “_____” (name of the article), submitted for publication in the republican scientific and methodological journal topical issues of teaching mathematics, physics and information Sciences Journal.

Questions, comments, objections, suggestions of experts: the material corresponds to the profile of the journal, the requirements for the design of manuscripts. This article does not contain information provided for in Article 12 of Chapter 3 of the current Law of the Republic of Kazakhstan "On State Secrets". The decision was made: the expert commission considers it possible to publish the article "_____" (name of the article) _____ (academic degree, full name of the author(s)) in the open press.

Commission Chairman
 (scientific degree, full name) _____
 (signature)

Commission member
 (scientific degree, full name) _____
 (signature)

Commission member
 (scientific degree, full name) _____
 (signature)

Commission Secretary
 (scientific degree, full name) _____
 (signature)

Author (s) _____
(surname and initials of the author(s))

(article title)

to the article written on the subject

EXPERT OPINION

The expert commission, having considered the article “_____

The article should contain brief information about the content, scientific novelty, research materials and methods, research results and analysis indicators.

Reviewer:

signature:

Secretary:

«Topical issues of teaching mathematics, physics and information sciences journal» reviewing the article submitted to the republican scientific methodical journal

REVIEW

Article title:	
Reviewer: Full name, academic degree and title, position	
Date:	

Content evaluation

Study object

	Formulated clearly and accurately
	Should be defined more clearly
	Not clear, should be reformulated
Reviewer's comment:	

Theoretical foundations and explanations

	The author expresses an original point of view
	There are enough links to previous studies
	Lack of links to other studies
	The theoretical background is missing or unclear
Reviewer's comment:	

Information and data provided

	New, original
	Expand and supplement already known information
	Repeat already known information
	Obscure
Reviewer's comment:	

Research method

	Well grounded and consistent
	Insufficiently substantiated, should be reconsidered
	Method unclear
	Not required for this kind of work
Reviewer's comment:	

Problem solving and analysis of results

	Very well grounded
	Reasonable enough

	Poorly grounded, should be revisited
	Not clear and / or too abstract
	Descriptive work
Reviewer's comment:	

Evaluation form

Name

	Clear and precise
	Should be revised
Reviewer's comment:	

Language style

	A great
	Free enough
	Understandable
	Hard to understand
Reviewer's comment:	

Tables, graphs, etc.

	Acceptable
	Should be revised
	Missing / not required
Reviewer's comment:	

List of used literature

	Acceptable
	Should be edited
Reviewer's comment:	

Annotation

	Acceptable
	Should be edited
	Should be revised
Reviewer's comment:	

Conclusions

	Publish as provided
	Accept with minor changes
	Accept with significant changes
	Reject as it stands, but with the possibility of re-filing
	Reject without the possibility of re-filing

Reviewer's comment:	
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DIGITAL ENRICHMENT OF MATHEMATICS EDUCATION

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Annotation. The research work is aimed at studying the methodology of teaching mathematics, the impact of digital transformation in education on the culture of teaching the subject. The object of the study is the methodology of teaching mathematics, the purpose of which is to study the disciplinary features of digital resources that are widely introduced into the educational process, as well as their impact on the educational process. The article describes some questions of the inclusion of digital resources in the subject of mathematics in accordance with the new requirements of education and their use in the teacher's practice.

Keywords: digitalization of education, teaching math, educational digital resource.

Introduction. The main wealth of modern society and the source of its change and continuous development is human capital. In general, "human capital" refers to a set of individuals who have the knowledge and qualifications, skills, and abilities necessary to perform a type of activity in a complex social and economic environment and who have established their own interests and value system.

Methods and materials. Previous research in this area has revealed the following findings: in addition to universal digital resources in the learning process, there is a rich collection of subject-specific digital solutions.

Research materials and methodology. The survey results were analyzed using the Excel spreadsheet features of the MS Office package

Research results and their discussion. The following activities can be observed based on the details of the lesson control sheets.

The sample of pictures and tables

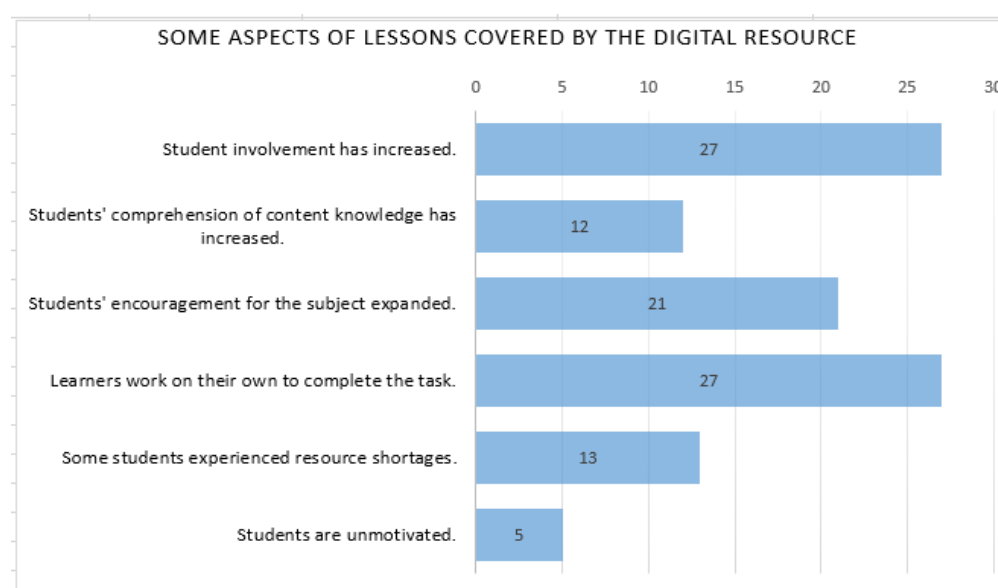


Figure 1 – The Digitally Illuminated Lesson's Aspects

Conclusion. According to the findings of the research, some level of digital transformation is taking place in all stages of mathematical education in the current state of education.

REFERENCES

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ЦИФРОВОЕ ОБОГАЩЕНИЕ ОБУЧЕНИЯ МАТЕМАТИКЕ

Фоминых Н.¹, доктор педагогических наук, профессор
***Kenessary A.²**, докторант

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Аннотация. Исследовательская работа направлена на изучение методики преподавания математики, влияния цифровой трансформации образования на культуру преподавания предмета. Объектом исследования является методика обучения математике, целью которой является изучение особенностей цифровых ресурсов, широко внедряемых в образовательный процесс, а также их влияние на образовательный процесс. В статье рассмотрены некоторые вопросы интеграции цифровых ресурсов в предмет математики в соответствии с новыми требованиями образования и их использования в практике учителя.

Ключевые слова: цифровизация образования, обучение математике, образовательный цифровой ресурс.

МАТЕМАТИКАНЫ ОҚЫТУДЫ ЦИФРЛЫҚ БАЙЫТУ

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² Қорқыт Ата атындағы Қызылорда университеті, Қызылорда қ., Қазақстан Республикасы

Аңдатпа. Зерттеу жұмысы математиканы оқыту әдістемесін, білім беруді цифрлық түрлендірудің пәнді оқыту мәдениетіне әсерін зерттеуге бағытталған. Зерттеу нысаны математиканы оқыту әдістемесі болып табылады, мақсаты оқу процесіне кеңінен енгізілген цифрлық ресурстардың ерекшеліктерін, сонымен қатар олардың оқу процесіне әсерін зерттеу болып табылады. Мақалада білім берудің жаңа талаптарына сәйкес математика пәніне цифрлық ресурстарды кіріктіру және оларды мұғалім тәжірибесінде пайдаланудың кейбір мәселелері қарастырылған.

Тірек сөздер: білім беруді цифрландыру, математиканы оқыту, білім берудің цифрлық ресурсы.

...

Information about the authors