Review Form 3

Journal Name:	Asian Journal of Education and Social Studies
Manuscript Number:	**Ms_AJESS_129880**
Title of the Manuscript:	**Research on the Use of ChatGPT in Junior High School Mathematics Teaching**
Type of the Article	

PART 1: Comments

	Reviewer's comment	**Author's Feedback** *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.		
Is the title of the article suitable? (If not please suggest an alternative title)		
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.		
Is the manuscript scientifically, correct? Please write here.		
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.		

Review Form 3

Is the language/English quality of the article suitable for scholarly communications?		
Optional/General comments	The authors of the article attempt to analyze the possibilities of using ChatGPT to improve the teaching of mathematics in secondary school, considering modern educational standards and learning problems. Given that ChatGPT has powerful natural language understanding and generation capabilities, a vast amount of knowledge in various fields, the ability to maintain prolonged dialogue, and the possibility of integration with other technologies, the authors see this chatbot as a tool to enhance the effectiveness of mathematics education. Based on the real problems of modern mathematics teaching: (1) teachers' focus on knowledge transmission and ignoring active student participation in the learning process; (2) insufficient attention to students' independent learning after lessons; (3) limited and ineffective assessment of students' knowledge; (4) insufficient interaction between teacher and students, the authors consider strategies for using ChatGPT in mathematics education: 1. Creating a diverse interaction model: (using dialogue with ChatGPT to stimulate students' thinking; creating an interactive learning environment; increasing students' interest in learning mathematics). 2. Implementing an intelligent assessment system: (personalized assessment of learning outcomes; quick feedback; tracking each student's progress). 3. Generating contextual mathematical problems: (creating problems related to real life; expanding ways to solve problems; developing critical thinking). 4. Creating a personalized online platform: (providing access to educational resources; supporting independent learning; individual educational trajectories). The authors believe that the use of ChatGPT in teaching mathematics is an inevitable trend but requires a balanced approach and further research to confirm the effectiveness of the proposed strategies. **Materials and Methods.** The authors use a theoretical analysis method, which is acceptable for this type of research. However, the article does not clearly describe the research methodology; there is no systematic literature review: when presenting a thesis, the authors refer to only one source; there is no comparative analysis of the results of similar studies. Also, the criteria for selecting sources for analysis are not presented (usually, authors describe which databases they used to analyze the state of development of certain issues, such as Scopus, WoS, Google Scholar, etc.). The authors do not describe the process of data collection and analysis. **Results and Discussion.** The research is based on theoretical analysis without empirical data, without a comparative analysis of the results of different scientists' studies. Most of the cited sources date from 2023-2024, indicating relevance. However, some key statements are not supported by references; there are no references to international studies. **Objectivity of Statements.** In our opinion, the statements presented in the article are not sufficiently substantiated, there is no comparative analysis of the results of studies conducted by different scientists on a particular problem. There is no critical analysis of the possible shortcomings of the proposed strategies in teaching mathematics. The statement about the inevitability of using ChatGPT in education is not supported by sufficient evidence, as there are many other specialized AI tools for generating mathematical problems, educational content in mathematics, and solving mathematical problems that can be used by teachers for teaching mathematics. It should be noted that the quality of the result obtained from ChatGPT depends on the quality of the prompt - the request for AI. There are different techniques for creating prompts, such as few-shot prompting, chain-of-thought prompting, or specifying the response format. Obviously, if students do not possess these techniques, AI will more often provide irrelevant answers. And adequately assessing the quality of the result obtained from AI may not always be possible for the student. Therefore, the question arises about the possibility of student-AI interaction for educational purposes. Thus, the article superficially considers the potential risks and limitations of using ChatGPT. It is advisable to provide references and analyze specific cases of using ChatGPT, in particular for: 2. Creating a diverse interaction model:	

	• Using dialogue with ChatGPT to stimulate students' thinking. • Creating an interactive learning environment. • Increasing students' interest in learning mathematics. 3. Implementing an intelligent assessment system: • Personalized assessment of learning outcomes. • Quick feedback. • Tracking each student's progress. 4. Generating contextual mathematical problems: • Creating problems related to real life. • Expanding ways to solve problems. • Developing critical thinking. 5. Creating a personalized online platform: • Providing access to educational resources. • Supporting independent learning. • Individual educational trajectories. **Statistical Analysis.** For this type of research, statistical analysis is not mandatory, but it would be useful to: 1) present quantitative data on the current state of AI use in education; 2) provide statistics on the effectiveness of similar technological solutions; 3) include metrics for evaluating the proposed strategies. **Recommendations for Improvement.** 1. Methodological section: • Describe in detail the process of selecting and analyzing the literature. • Present the criteria for inclusion/exclusion of sources for analysis. • Describe the data analysis framework. 2. Theoretical basis: • Expand the review of international studies. • Include a critical analysis of existing practices. 3. Discussion: • Expand the analysis of potential risks and limitations. • Add recommendations for overcoming possible problems. • Include a plan for further research. **Conclusion.** The article presents a relevant study with important practical implications. The main strengths are the relevance of the topic and practical orientation. The main weaknesses are the underdeveloped methodology, limited evidence base, and lack of critical analysis. It is recommended to revise the article according to the comments before publication.	

PART 2:

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Are there ethical issues in this manuscript?	*(If yes, Kindly please write down the ethical issues here in details)*	

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