

Review Form 1.7

Journal Name:	Asian Journal of Education and Social Studies
Manuscript Number:	Ms_AJESS_106853
Title of the Manuscript:	Research on Preservice Mathematics Teachers' Cognitive Degree of Space Concept Literacy in Junior High Schools in China
Type of the Article	

Review Form 1.7

PART 1: Review Comments

	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)
<p>Compulsory REVISION comments</p> <ol style="list-style-type: none"> Is the manuscript important for scientific community? (Please write few sentences on this manuscript) Is the title of the article suitable? (If not please suggest an alternative title) Is the abstract of the article comprehensive? Are subsections and structure of the manuscript appropriate? Do you think the manuscript is scientifically correct? Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<ul style="list-style-type: none"> The study focused on space concept literacy in junior high school, an essential topic in the field of education in China. This statement directly implies that there is already a notable interest in this area among educators and researchers. The manuscript recognizes a specific gap in the current research landscape, particularly regarding preservice mathematics teachers' cognitive degree of space concept literacy. The study references the "Mathematics Curriculum Standards for Compulsory Education (2022 Edition)", which suggests that the research aligns with current education policies. Thus, the findings could be significant to policymakers, educators, and curriculum designers. The introduction suggests that teachers' mastery and implementation of space concept literacy influence students' space concept levels. If this is accurate, then understanding and improving teacher cognition could have downstream benefits on student outcomes. This implies a broader impact on educational quality and effectiveness. In conclusion, the manuscript appears essential to the scientific community, especially those involved in mathematics education in China. <p>2. I suggest the use of 'Understanding Spatial Concept Literacy: A Study on Junior High Mathematics Teacher Trainees in China' or 'How Prepared are China's Mathematics Teacher Candidates? An Insight into their Spatial Concept Literacy'</p> <p>3. Abstract</p> <ul style="list-style-type: none"> The beginning of the abstract effectively places the research in the context of current scholarship in the field, indicating the topic's relevance. The abstract mentions using a semi-structured interview method with a specific sample, which gives the reader an understanding of how the study was conducted. The results are broken down into five main points, which provide insights into the cognitive breadth, clarity, accuracy, implementation focus, and rationale of the preservice teachers regarding space concept literacy. <p>However, the abstract does have some areas that can be improved:</p> <ul style="list-style-type: none"> Some sentences are long and might benefit from simplification or restructuring for clarity. For instance, the statement, "The cognitive breadth of space concept literacy is high, and preservice mathematics teachers can cognize all the contents, but not everyone can do this," can be rephrased for better clarity. Certain statements can be made more concise. For example, "The cognition of the implementation focus is rational, but there are also shortcomings" can be clarified to indicate what those shortcomings are or how they affect the overall findings. <p>In summary, while the abstract is comprehensive in providing a broad overview of the study and its findings, there are areas where clarity, specificity, and conciseness can be improved.</p> <p>4. The heading and subheadings must be appropriately done (e.g., font type and size)</p> <p>5. The manuscript is scientifically correct to a large extent</p> <p>6. Yes, the references sufficient and recent</p> <p>Introduction and literature review</p> <ol style="list-style-type: none"> The article comprehensively overviews past research on space concept literacy in junior high school. It identifies the main research directions, which helps situate the current study in the broader literature. The article defines space concept literacy by referencing multiple scholars and resources, providing a holistic understanding of the topic. By considering various studies, the article captures a range of perspectives on space concept literacy, making it well-rounded. The article effectively identifies a gap in the current literature, precisely the cognitive degree of preservice 	

Review Form 1.7

	<p>mathematics teachers on space concept literacy, and justifies the significance of studying this gap.</p> <ol style="list-style-type: none">i. However, the literature review, though thorough, seems overwhelming due to the many studies mentioned in quick succession. Grouping them by themes or summarizing the overall trends might have been more reader-friendly.ii. While the multiple definitions of space concept literacy provide a holistic view, there is some repetition and overlap, which could be streamlined for clarity and brevity. <p>In conclusion, the article thoroughly explores space concept literacy in junior high school, specifically in China. While it excels in laying out past research and defining its topic, it could benefit from better organization and clarity in presenting its content.</p> <p>Methodology and findings</p> <ol style="list-style-type: none">1. The article presents a clear and systematic methodology. From instrument selection to data processing, there's a well-laid-out structure.2. Utilizing the semi-structured interview method allows for richer data that captures nuances and insights not easily captured by quantitative methods.3. The article goes into great detail about data processing, from transcribing interviews to coding responses. Using coding tables helps make sense of the data in a structured manner.4. Comparing preservice mathematics teachers' views with the Standards and authoritative studies adds a level of depth to the research.5. The sample includes both senior students and first-year graduate students, offering a broader perspective from preservice mathematics teachers at different educational levels.6. Using tables and structured analysis under each subheading in the results section makes it easier for the reader to understand the findings. <p>However,</p> <ol style="list-style-type: none">i. Qualitative research often benefits from rich, descriptive narratives. Using direct quotes from participants can provide depth and authenticity to the findings.ii. Since all participants were from Shandong Normal University, there might be biases rooted in the educational approach or culture of that specific institution.iii. While qualitative research offers in-depth insights, including quantitative data could provide a more comprehensive overview and validation of findings.iv. While the article does a good job breaking down and analyzing data, some points, like the implications of the findings for actual classroom implementation, might benefit from deeper exploration. <p>Overall, the article provides valuable insights into the cognitive degree of space concept literacy among preservice mathematics teachers in junior high schools in China. Future research might consider broadening the sample, using mixed methods, and incorporating more modern technological tools and concepts.</p> <p>Discussion and Conclusion</p> <ol style="list-style-type: none">1. The study thoroughly breaks down the various aspects of preservice mathematics teachers' cognition on the topic – from breadth and clarity to accuracy and implementation.2. By mentioning the Standards and theories such as Van Hiele's, the research situates its findings within the broader field of mathematics education.3. Based on the research findings, the conclusion offers concrete suggestions for training and self-study for preservice mathematics teachers.4. The conclusion transparently points out the study's limitations, suggesting areas for future research and improvement. <p>However,</p> <ol style="list-style-type: none">i. The reliance on solely qualitative methods means the study may miss out on quantitative insights that can be generalized to a larger population.ii. While the research mentions established standards and theories, it does not delve deep into these or comprehensively compare the study's findings and the established knowledge in the field.iii. The suggestions provided are somewhat broad. More specific and actionable recommendations could enhance the practical utility of the research findings.	
--	---	--

Review Form 1.7

<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	<ul style="list-style-type: none"> i. Some information is repeated. For example, the distinction between "cognitive breadth," "cognitive clarity," and "cognitive accuracy" is described multiple times. Scholarly articles should strive for conciseness. ii. Some sentences are vague or overly complex. For instance, "it can be seen from the data that" can be shortened to "the data shows that." iii. Percentages and other statistics should be presented in a consistent format. The phrase "more than half can cognize each point" is vague. Exact percentages are preferable. iv. Scholarly communications usually require proper citations for any theories, data, or other research mentioned. The references to "Standards," "Van Hiele's Theory," and "Bao Jiansheng et al." need proper citations. v. There are minor grammar issues, and some sentences are constructed awkwardly. For instance, "What is the current preservice mathematics teachers' cognitive degree of space concept literacy in junior high school?" could be rephrased for clarity. <p>Thus, while the article's content appears relevant and research-based, the language and presentation need refinement to match the standards of scholarly communications. Proper editing, proofreading, and restructuring would enhance its quality.</p>	
<p>Optional/General comments</p>		

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)
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

Reviewer Details:

<p>Name:</p>	<p>Ninette Afi Appiah</p>
<p>Department, University & Country</p>	<p>Akenten Appiah-Menka University of Skills Training and Entrepreneurial Development, Ghana</p>