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Journal Name:	AsianJournalofEducationandSocialStudies
ManuscriptNumber:	Ms_AJESS_118912
Titleofthe Manuscript:	TheInfluenceoftheVirtualLaboratory MediaProblem-BasedLearningModelontheCreativeThinkingAbilityofMiddleSchoolStudents
TypeoftheArticle	

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PART 1: ReviewComments

	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> <p>1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript)</p> <p>2. Is the title of the article suitable? (If not please suggest an alternative title)</p> <p>3. Is the abstract of the article comprehensive?</p> <p>4. Are subsections and structure of the manuscript appropriate?</p> <p>5. Do you think the manuscript is scientifically correct?</p>	<p>1. While the use of virtual labs in teaching physics is not new, the manuscript needs to clarify how its approach is innovative compared to existing studies (example: <i>Noris, M., & Saputro, S. (2022). The Virtual Laboratory Based on Problem Based Learning to Improve Students' Critical Thinking Skills. The Virtual Laboratory Based on Problem Based Learning to Improve Students' Critical Thinking Skills, 3(1), 35-47</i>) and <i>Hussin, W. N. T. W., Harun, J., & Shukor, N. A. (2018). Problem based learning to enhance students critical thinking skill via online tools. Asian Social Science, 15(1), 14.</i> If the study's intervention is only slightly different from these previously tested studies, the manuscript is viewed then as highly not significant.</p> <p>2. The title should accurately reflect the primary focus of the research. It should mention key elements like the educational setting (Physics) aside from the methodology (PBL and virtual laboratories) and the main outcome (creative thinking abilities).</p> <p>3. Please enhance the abstract statement. Include specific data points or metrics highlighting the significant change in creative thinking abilities observed in the study, such as the improvement observed in the experimental group compared to the control group. Also, mention any potential implications these findings might have on educational practices, particularly regarding the integration of virtual laboratories in learning environments. Finally, provide recommendations for future research to address any limitations.</p> <p>4. There is a lack of clear subheadings or sections in particular in the findings, which makes it challenging to follow the logical flow of the argument or findings presented.</p> <p>5. Consider the methodological rigor below: - Along research design, the study uses a quasi-experimental design with a non-equivalent control group. This design can be appropriate for educational settings where random assignment may not be possible. However, it is important to consider that non-equivalent groups could introduce selection bias, affecting the generalizability and internal validity of the findings. Hence, it should be clarified whether there were any attempts to control confounding variables that could influence the results, such as prior knowledge, teacher effects, or environmental factors.</p> <p>Along statistical analysis, the manuscript uses nonparametric tests like the Wilcoxon Signed Test and Mann-Whitney, which are suitable for data not assuming normal distribution. However, the normality of data should be adequately tested and reported. Reporting significance levels (e.g., Sig. 0.000 and Sig. 0.001) is good practice, but the manuscript should also discuss the effect sizes, which help in understanding the practical significance of the findings. Likewise, while the conclusion about the significance of the</p>	

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<p>6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</p> <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>Mann-Whitney test is provided, it would be beneficial to explicitly state the practical implications of these findings in relation to the study's objectives or hypotheses.</p> <p>6. Lee, K.H. (2005), Nugroho, S. (2008), Torrance, EP. (1968), W. Corder, G., & Forman, Ilmaz, K. (2008). Update these references.</p> <p>- Try to read these references too: Noris, M., & Saputro, S. (2022). The Virtual Laboratory Based on Problem Based Learning to Improve Students' Critical Thinking Skills. The Virtual Laboratory Based on Problem Based Learning to Improve Students' Critical Thinking Skills, 3(1), 35-47 and Hussin, W.N.T.W., Harun, J., & Shukor, N.A. (2018)</p> <p>Additional suggestions/comments</p> <p>7. While the 4Cs are mentioned in the introduction, a brief definition or example of each could enhance clarity for readers unfamiliar with the concept.</p> <p>Please double check your list of references against your citations. There are citations in the text that are not acknowledged in the references (Here are the references from your list that do not appear mentioned in the text you provided Nugroho (2008), W. Corder, G., & Forman, D.I. (2014), Sugiyono (2015), Robiyanto (2021), Yustina, Mahadi, I., Ariska, D., Arrentis, & Darmadi (2022).</p>	
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<p>MinorREVISION comments</p> <p>1. Is language/English quality of the articles suitable for scholarly communications?</p>	<p>1. The language convention of the article needs to be improved along the following:</p> <ul style="list-style-type: none"> - There are minor grammatical errors and awkward phrasings that could be streamlined. For instance, the use of "flexibility" is repeated unnecessarily in the sentence about creative thinking indicators. - The sentence "It causes students to tend to feel bored in the learning process..." could be clearer. A better phrasing might be, "<i>This often results in students feeling bored during the learning process.</i>" - The text sometimes repeats information or uses more words than necessary, which can detract from its overall impact. For example, the phrase "Based on the explanation above" is used repetitively and could be omitted or varied to improve flow. Likewise, try to refine some sentences and removing redundancies particularly in paragraph 3. - Ensure consistent terminology, especially when discussing technical aspects. For example, "virtual laboratory media" and "virtual laboratories" are used interchangeably; choosing one term and sticking to it throughout the document could reduce potential confusion. 	
<p>Optional/General comments</p>	<p>Beware the other general comments observed in the article:</p> <ol style="list-style-type: none"> 1. Is the result of the interview enough to claim that the students had quite a good interest in learning science (physics)? that they needed help understanding some of the material? that they tend to feel bored in the learning process? The credibility of interviews with science teachers and students at SMPN 17 Jambi City is questionable due to several factors. The sample size, selection process, methodology, interviewer training, and data analysis processes are not specified, raising concerns about representativeness, minimizing bias, and eliciting honest answers. 2. Explain why the control group received PBL treatment without virtual laboratory media. This rationale helps justify the research design and interpretation of results. 3. Provide more details or examples of what the "non-tests in the form of documentation" entail. This clarification would give readers a clearer picture of how these methods contribute to the study's outcomes. 4. The color coding in the figure representations should be consistent. 5. Clarified the presentation to explicitly state that the experimental class had lower initial scores but higher final scores across all indicators, emphasizing the impact of the intervention. 5. The conclusion must avoid bias and refrain from overselling the findings, presenting a balanced view strictly based on the evidence within the study. Authors should avoid making exaggerated claims that surpass the scope or strength of the data. Instead, the conclusion should be modest and rooted in the specific results and analyses presented in the manuscript. It is crucial to ensure that claims are directly supported by the data provided in the manuscript, referencing specific findings or results that demonstrate significant influence, such as improvements in creative thinking scores or comparative data between the experimental and control groups. 	

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PART 2:

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

Reviewer Details:

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