

**ReviewForm3**

Journal Name:	<a href="#">Asian Journal of Education and Social Studies</a>
Manuscript Number:	Ms_AJESS_126277
Title of the Manuscript:	<b>Guided Inquiry: An Alternative Science Learning Technique in Improving Elementary School Students' Process Skills and Concept Mastery</b>
Type of the Article	

**PART 1: Review Comments**

<b>Compulsory</b> REVISION comments	<b>Reviewer's comment</b>	<b>Author's Feedback</b> (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<b>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</b>	This manuscript addresses a valuable topic in science education—using guided inquiry to enhance young learners' science process skills (SPS) and concept mastery. However, its impact is limited by several weaknesses, including a lack of practical recommendations for educators and insufficient theoretical depth, which reduces its broader applicability. While it contributes to understanding inquiry-based methods in early education, the manuscript requires substantial refinement to effectively support its claims and offer actionable insights.	
<b>Is the title of the article suitable? (If not please suggest an alternative title)</b>	The title, "Guided Inquiry: An Alternative Science Learning Technique in Improving Elementary School Students' Process Skills and Concept Mastery," is generally suitable as it reflects the study's focus on guided inquiry and its educational impact on elementary students. However, it could be more precise to capture the study's specific context and objectives.	
<b>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.</b>	The abstract is generally comprehensive, as it covers the study's aims, methodology, and key findings. However, it could benefit from additional specificity regarding the sample size, setting, and specific improvements observed in science process skills (SPS) and concept mastery. Including these details would enhance clarity and provide a more complete overview for readers. Suggested Revision: (1) Addition of Specific Sample Information: Mentioning the sample size and demographic (i.e., third-grade students in Jambi, Indonesia) will give readers a clearer context for the study's scope. (2) Clarification of Key Findings: Specify the exact improvements in SPS and concept mastery (e.g., percentage increase or "moderate improvement") for clarity on the impact of guided inquiry. (3) Focus on Practical Implications: Briefly highlight how the findings might be applied in classroom settings or influence teaching practices to enhance the abstract's relevance for practitioners.	
<b>Are subsections and structure of the manuscript appropriate?</b>	The manuscript's structure is mostly appropriate, with clear sections for introduction, methodology, results, discussion, and conclusion. However, separating the literature review from study objectives in the introduction and organizing results by specific skills (e.g., "Observation," "Concept Mastery") would enhance clarity. Adding a subsection on "Practical Implications" in the conclusion could also strengthen the manuscript by providing actionable insights for educators.	
<b>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</b>	While the manuscript uses a quasi-experimental design with N-gain and T-test analyses to measure changes in students' skills, its scientific robustness is limited by some weaknesses. The methods section lacks detail on how the guided inquiry model was specifically adapted for young learners, which raises questions about the intervention's developmental appropriateness. Additionally, while statistical significance is reported, the manuscript does not fully interpret what these results mean in practical terms for elementary education. Addressing these gaps would enhance the manuscript's technical soundness and relevance to educators.	

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<p><b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b></p> <p>-</p>	<p>The references in the manuscript are somewhat sufficient, covering foundational studies on science process skills (SPS) and guided inquiry. However, many references are slightly outdated, with few sources from the past two to three years. Including more recent studies, especially on guided inquiry applications in elementary education, would strengthen the manuscript's relevance. I suggest incorporating recent research on early science education and inquiry-based learning methods to provide an updated perspective and reinforce the study's context within current educational trends.</p>	
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<p><b>Is the language/English quality of the article suitable for scholarly communications?</b></p>	<p>The language quality of the manuscript is generally understandable but requires refinement to meet scholarly standards. Certain sections, particularly the introduction and results, contain unclear phrasing and repetitive language, which may hinder readability. For example, simplifying sentences and ensuring consistent terminology would improve clarity. Additionally, addressing minor grammatical errors and enhancing transitions between ideas would make the manuscript more professional and suitable for scholarly communication.</p>	
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Optional/General comments

The manuscript investigates the application of guided inquiry as an instructional approach for enhancing science process skills (SPS) and concept mastery among third-grade elementary students in Jambi, Indonesia. Employing a quasi-experimental design, the study measures SPS and concept mastery through pretest and posttest scores, analyzed via N-gain and Ttests. While the study attempts to validate guided inquiry for young learners and presents findings indicating moderate improvements, there are several areas where the manuscript would benefit from refinement.

Comments

The study's relevance to contemporary science education is commendable, as it addresses the need for student-centered learning models and presents guided inquiry as an alternative. Additionally, the quasi-experimental design, along with statistical methods such as N-gain and T-test analyses, are appropriate for assessing the effects of the intervention. However, the manuscript's strengths are not fully realized due to a lack of detail in methodology, limited theoretical grounding, and insufficient consideration of the sample's generalizability. Below are the main areas needing improvement.

1. Results and Data Interpretation:

While the data tables illustrate some degree of improvement across SPS and concept mastery indicators, the narrative descriptions following these tables lack depth and clarity. For example, in describing the data collection indicator, the authors state, "This means that the average increase in SPS in the data collection ability indicator in science learning using guided inquiry is 'moderate'" (Results and Discussion). This statement would benefit from a clearer explanation of what "moderate" improvement implies for students' actual performance. A more detailed analysis could explore the types of skills students developed and discuss whether this "moderate" increase is significant enough to support guided inquiry as an effective model.

2. Weaknesses in Theoretical Foundation:

The literature review provides a brief background on SPS and guided inquiry but fails to thoroughly examine the unique aspects of guided inquiry as compared to other instructional models. Without a deeper theoretical comparison, the rationale for selecting guided inquiry as the intervention method appears underdeveloped. Additionally, the discussion on SPS could be improved by incorporating insights into how these skills are foundational to higher-order thinking and lifelong learning in science. Expanding on the theoretical justification and contextualizing guided inquiry within current trends in early science education would provide readers with a clearer understanding of its value.

3. Lack of Specific Adaptations for Elementary Students:

The manuscript implies that guided inquiry can be adapted to younger learners but does not elaborate on specific modifications made to suit third-grade students. As elementary students may have limited cognitive and literacy skills compared to older students, it would be beneficial to clarify how the model was adapted to accommodate these developmental differences. For example, the study could detail any simplifications in vocabulary, step-by-step guidance, or visual aids used. As it stands, the study lacks evidence that the approach was customized to align with the needs of young learners, which could impact its effectiveness and applicability.

4. Sample Limitations and Generalizability:

The study's sample, drawn from two locations within the same school system, is small and context-specific, limiting the findings' generalizability. The authors state that "Guided Inquiry can be used as an alternative to improve students' mastery of science concepts in science learning" (Conclusion). However, this conclusion would be strengthened if the authors addressed the limitations of their sample and discussed how the intervention might vary across different educational settings or student demographics. Acknowledging these limitations and suggesting future studies involving larger and more diverse samples would improve the study's validity.

5. Structure and Language Precision:

Some sections of the manuscript would benefit from restructuring for greater clarity. For instance, the Introduction contains general statements about the importance of education quality improvements, such as "One real effort to improve the quality of education is through curriculum development and implementation of student-oriented learning." Simplifying and focusing on these statements would improve readability. Moreover, the Results and Discussion sections could be better organized by aligning each SPS indicator and mastery concept with a corresponding discussion, enhancing coherence.

6. Insufficient Implications and Recommendations:

The manuscript concludes that guided inquiry effectively improves SPS and concept mastery for third graders, yet it lacks detailed practical recommendations for educators. Concrete

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**PART 2:**

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

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