

# Exploring the interplay of innovation competence and chemistry mastery: insights from educational practices and factors of influence

The article went through 2 rounds of review and all 2 reviewers agreed in advance to publish their review reports without disclosing all identities.

The authors agreed to disclose the reviewers' reports and their responses to the reviewers' comments.

**Disclaimer:** The peer review report content is the entire copy of the reviewers' and authors' comments. Typing and punctuation errors are not edited.

## ROUND 1

**Reviewer A: Anonymous**

**Recommendation:** Revisions Required

Dear author,

1. This title does not match the results of the literature review in the manuscript.
2. Citation using ACS (American Chemical Society).
3. Every sentence must be connected with the previous sentence and paragraph.
4. Don't use the word "we" in this article.
5. Add the research questions in introduction.
6. Explain about PRISMA Scheme Article Selection Process in Method.
7. These keywords have nothing to do with the research theme (The initial step involved identifying keywords, with 'classification of cervical cell' being the primary term).
8. Adjust to the table format in the manuscript template.
9. Fix the table of Inclusion and Exclusion Criteria of Article.
10. This subject needs to be narrower and fit the chemistry learning theme not Chemistry education and social science.
11. Explain the Research Validity and Reliability of the articles obtained.
12. Determine Interrater reliability and how much.
13. Using Cohen's Kappa to analyze Research Validity and Reliability.
14. in Result and Discussion explains the results of the PRISMA Scheme Article Selection Process.
15. Explain what are the results of the literature review analysis of 31 articles? What novelty do you get? What is the problem? How to solve?
16. Create a scheme of the relationship between innovation competence and mastery of chemistry, proven through three main aspects in the picture.
17. The picture in the manuscript is not right. The image displayed should be the result of analysis of 31 articles according to the theme of chemistry learning innovation.
18. Use active sentences.
19. create an analysis table of the types of chemistry learning innovations and the number of articles obtained.
20. This last paragraph should contain conclusions from the themes of the literature review based on the results of the analysis of 31 articles.
21. Double 3.1 unclear the theme
22. Explains the results of the literature review analysis (31 articles) according to the themes and supporting theories. Don't go outside the theme and repeat sentences.
23. The paragraph needs to discuss the review results according to the theme, convey the number of articles obtained, categorize them, and provide in-depth discussion.
24. Create the results of the analysis of findings with diagrams or schemes accompanied by the total articles obtained.
25. This conclusion is unclear and does not explain the findings of the literature review of 31 articles analyzed in depth especially in chemistry learning.

## Peer Review Reports

26. The conclusion contains the results of the review, limitations, and recommendations for further research.

27. Use ACS References,

Full details are in the manuscript. Thank you.

No Reviewer Files

**Reviewer B: Anonymous**

**Recommendation:** Revisions Required

Dear author(s),

Your writing is clear and effectively conveys the study's importance and implications. You have successfully highlighted the relevance of understanding the relationship between innovation competence and mastery of chemical concepts, providing valuable insights for educators and policymakers. To further enhance your writing, consider focusing on conciseness and specificity, ensuring that each section clearly articulates its main points without redundancy. Additionally, incorporating more concrete examples and emphasizing the practical applications of your findings can make your argument more compelling.

[Reviewer Files](#)

**ANSWERS TO ROUND 1**

[Author's Files](#)

**ROUND 2****Reviewer A: Anonymous**

**Recommendation:** Accept Submission

Accepted, except for Figure 3; please move it from the conclusion.

No Reviewer Files

**Reviewer B: Anonymous**

**Recommendation:** Accept Submission

Accepted, except for Figure 3; please move it from the conclusion.

No Reviewer Files

**ARTICLE ACCEPTED**