



Peer Review Report Form

Manuscript Title:	VARK Learning Preferences and Teaching Styles in Science During Distance Learning
Type of Article:	Original Article

FIRST ROUND

Editor

<u>General Comments and Recommendations</u>
The reviewers acknowledge the significance of your manuscript and recommend several revisions to further improve its clarity, coherence, organization, and overall scholarly quality. In addition, you are advised to thoroughly review and validate all references included in the manuscript. Please ensure that all cited sources are accurate, accessible, and retrievable through Google Scholar to uphold the credibility and reliability of the study. Additionally, make sure to include the DOI or website link for every reference whenever available to facilitate verification and accessibility of sources. Furthermore, only sources that are cited within the manuscript should appear in the References section, and all entries listed in the References section must also be cited in the text. For example, if 20 unique sources are cited in the manuscript, then only those 20 sources should be included in the References section. Please also note that repeated citations of the same source within the text are counted as a single reference entry; therefore, the total number of references may be lower than the total number of in-text citations.

Reviewer 1

<u>General Comments and Recommendations</u>
The manuscript addresses a relevant topic, especially on science teaching during distance learning. However, its main weakness is the limited rigor in the measurement and analysis of learning styles and teaching styles, which affects the strength of the conclusions.

<u>Specific Comments and Recommendations</u>
The study relies strongly on the VARK learning style framework, but the manuscript presents it as if matching teaching style to learning style clearly improves learning. This claim needs more critical discussion because learning styles remain debated in education research. The paper should avoid making strong instructional claims unless supported by stronger evidence.
The methodology needs more detail on the modified questionnaire. The authors mention expert validation, but reliability results such as Cronbach's alpha are not reported. Since the instrument was adapted and modified, this is important to show that the tool measured the intended constructs consistently.



The analysis is mostly descriptive, but the paper concludes that there is a mismatch between learning styles and teaching styles. This conclusion would be stronger if supported by appropriate statistical tests or clearer criteria for determining mismatch. Comparing mean rankings alone may not be enough.

There are inconsistencies in the reported results. For example, the summary table shows Visual learning style with a mean of 3.93, but the succeeding text reports 4.30. Similar inconsistencies appear in the discussion of the summary results. These should be carefully checked because they affect the credibility of the findings.

Please indicate your recommendation by checking the appropriate box below.

<u>Decision</u>	
☐	Accept the manuscript for publication.
☐	Reconsider the manuscript after the authors have satisfactorily addressed and complied with the reviewers' comments and recommendations.
☐	Reject the manuscript, as it is not suitable for publication.

Reviewer 2

<u>General Comments and Recommendations</u>
I would like to commend you for tackling the challenges of science education during the COVID-19 pandemic. The transition to distance learning is a very relevant topic, especially in the context of the Philippines where the shift was quite drastic.
<u>Specific Comments and Recommendations</u>
Your methodology states that Part II of your survey measured the teaching styles used in Science based on how the students perceived them. The instrument asks students to rate statements like "My Science Teacher... gives printed activities". This is a massive methodological flaw because you are measuring student perception of teaching styles, not the actual teaching styles of the educators. If you want to claim a mismatch between student learning styles and teaching styles, you really should have surveyed the science teachers themselves regarding their instructional delivery. Relying purely on the perspective of Grade 8 students to evaluate pedagogical strategies introduces a heavy perception bias.
The paper entirely relies on weighted means and rankings to analyze the data. While descriptive statistics are okay for establishing baselines, journals typically require inferential statistics to prove that your findings are statistically significant. You concluded that there is a discrepancy between the learners' visual preference and the teachers' reading/writing delivery. However, without correlation or variance analysis (like ANOVA or t-tests), you cannot scientifically prove if this mismatch actually impacted the students' academic performance or comprehension. I saw that you actually acknowledged this in your limitations, stating that descriptive statistics failed to uncover causal relationships or significant correlations. For a journal, just acknowledging this limitation is not enough; you really need to run those advanced statistical tests to give your paper some teeth.
Your respondents only consist of 99 students from four sections of Grade 8. Furthermore, these students all came from a single private Catholic school. You correctly noted that this severely



limits the generalizability of the study. Readers look for robust, widely applicable data. A sample size of 99 from one specific school is essentially a localized case study, which might not be attractive to international readers looking for broader educational insights.

My major concern is your reference list. I only count exactly five references listed at the end of the manuscript. A research article usually requires a comprehensive review of related literature, often citing at least 20 recent, high-quality peer-reviewed journals. Your introduction briefly mentions Fleming's VARK model, but there is barely any deep theoretical discussion grounding your study. You need to heavily expand your related literature to situate your findings within the global discourse of science education and distance learning.

Your Results section tends to just repeat in paragraph form exactly what is already visible in the tables. For example, Table 1 shows visual learning got a mean of 3.93, and the text right below it just repeats that visual learning has a weighted mean of 3.93. In academic writing, especially for strict journals, text should synthesize and interpret the data, not just narrate the numbers found in the tables.

Please indicate your recommendation by checking the appropriate box below.

<u>Decision</u>	
	Accept the manuscript for publication.
/	Reconsider the manuscript after the authors have satisfactorily addressed and complied with the reviewers' comments and recommendations.
	Reject the manuscript, as it is not suitable for publication.

SECOND ROUND

<u>Decision</u>	<u>Editor</u>	<u>Reviewer 1</u>	<u>Reviewer 2</u>
Accept the manuscript for publication.	/	/	/
Reconsider the manuscript after the authors have satisfactorily addressed and complied with the reviewers' comments and recommendations.			
Reject the manuscript, as it is not suitable for publication.			