

This paper is related to reviewing the manuscript titled " **Comparing between virtual reality based pre-clinical implantation training and traditional teaching methods**"

A study with this title would probably evaluate the efficacy of two training methods: traditional classroom instruction and virtual reality (VR) simulation. Students would use specialized equipment to practice implantation operations in a virtual setting as part of the VR instruction. The researchers would then examine the students' knowledge, abilities, and confidence after they had completed both training approaches. The objective would be to discover whether VR-based training has any advantages over traditional techniques, such as better learning outcomes, shorter training times, or higher safety.

Firstly, Although the proposed study is successful in terms of organization, presentation, content and results, major revision given in the following items need to be performed.

- 1) Improve the abstract and conclusion section, enhance the manuscript to convey the purpose, objectives, method and major findings, especially results in the items of convenience, interest, comfort, enhancing student's self-confidence and subjective initiative.
- 2) Use abbreviations after the first use in the text, in the abstract and throughout the paper.
- 3) The literature review is quite insufficient in the introduction section. Complete the introduction and literature sections of the manuscript by providing similar studies from the years 2023-2024 and/or new and current studies that will attract the attention of the readers.
- 4) Are there any other statistical and/or learning-based methods used by the authors other than the ANOVA test? Why are their methods weak?
- 5) More analysis results should be included in the results and findings section.
- 6) The label text of Figure 1 should be shortened because it damages the visual appearance of the figure and the graph.
- 7) The authors obtained the results according to preclinical implantation training (VR based PCIT), this is already insufficient, these results should also be detailed and interpreted.
- 8) Are there any comparisons that the authors have made to VR-based traditional teaching methods? Should learning or teaching actually be used here? The paper title can also be changed accordingly.
- 9) No comprehensive performance analysis other than total interaction time, learning duration, and before and after of PCIT. Authors should focus on the results section.
- 10) The conclusion section really needs to be improved
- 11) The resolution of the figures giving the analysis results should be increased.
- 12) Clean the paper of English spelling and punctuation errors

My decision is major revision. I would like to inform you that if all the requested items are not completed in this revision, my decision will be to reject the application in the second round. Otherwise, I do not see any harm in publishing the manuscript once the above revisions are made.

Best regards.