



Clinical Virtual Brainstorm: Research & Development for New Way of Formative Evaluation

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Background

Clinical Virtual Brainstorm (CVB) is a pattern of online formative evaluation platform that was newly invented in order to help preclinical students better understand basic clinical knowledge, as well as basic science knowledge (first used in August 2020 in 2nd-year medical students of Phramongkutklao College of Medicine).

Summary of Work

This study focused on 2nd-year medical students by applying the 1st version of CVB in the on-site respiratory physiology course. The questionnaire included 5-Likert scale covering 5 perspectives toward satisfaction for the platform (pattern of platform, activity, group interaction, clarification, and knowledge application; Cronbach's alpha 0.905). The feedbacks were used for developing the second version before using it in the online classes of the urinary physiology course. The satisfaction questionnaire was collected again. Independent t-test was used for between 2 results with content analysis to specify details within each perspective.

Features of Clinical Virtual Brainstorm : Strategies



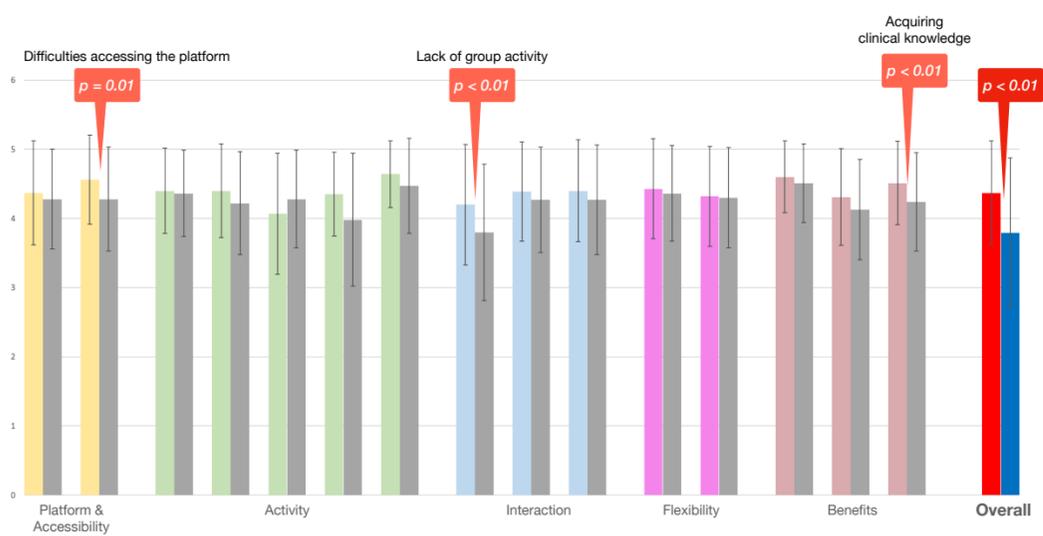
The overall concept of CVB

Dashboard of CVB, instructors can observe students' activity during the course.

Result & Discussion

75 (83.33%) and 90 (100%) of responses were collected from the first and the second course, respectively. Overall, when turning to the online class, the subject faced difficulties accessing the platform ($t= 2.5836, p= 0.011$). They also felt less convenient contacting other subjects ($t= 2.7687, p=0.006$), and these affected the overall satisfaction ($t= 2.6494, p= 0.009$). From the content analysis, this method provided effective learning material and allowed subjects to visualize the big picture of the course, while many of them complained about the interface and stability of the online documents, as well as the number and interval of the assignment. As a result, the method was reorganized and the major complaints were fixed. However, there were some problems with group interaction due to online learning.

Satisfaction Score



Satisfaction score; group discussion and correction section from the lecture is the important part that students concern.

Virtual discussion during the respiratory physiology course

Conclusions

Like many studies, despite this new formative evaluation method may provide effective learning material for the subjects, it still has limitations about accessibility and personal interaction when used in fully online learning.

Take Home Message

When applying a new tool for online learning, developers should focus on improving accessibility and group interaction, and it should be designed separately depending on the characteristic of each course.