

THE USE OF ONLINE BOARD APPLICATIONS AND VIRTUAL REALITY VIDEOS TO INCREASE THE EFFECTIVENESS OF ONLINE SCIENTIFIC APPROACHES

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Abstract

This study aims to increase online learning effectiveness during the COVID 19 pandemic, especially in the online scientific approach, as one of the learning approaches required in the 2013 curriculum by using online board applications and virtual reality. The research subjects consisted of 50 junior high school students in West Bandung, 25 students using the scientific approach assisted by online board applications and virtual reality videos, and 25 students using the online scientific approach learning assisted by Student Worksheets. The course observed were mathematics subjects focused on students' mathematical connection abilities and Indonesian subjects, which were focused on students' ability to write descriptive texts. The use of online board applications and virtual reality videos is carried out in a scientific approach, including observing, asking questions, reasoning / associating, processing information, and communicating and creating networks. The results showed that students whose learning used an online scientific approach assisted by online board applications and virtual reality videos: 1) The average score of the mathematical connection ability and writing the descriptive text of the students exceeded the minimum completeness criteria; 2) The average normalized gain in both mathematics and Indonesian is in the medium category; 3) Classical completeness occurs above 80%; 4) The average score of student learning motivation is in the medium category; 5) Average normalized gain is in the medium category; 6) The students' mathematical connection ability and write descriptive text is better than students who are assisted by worksheets. Thus it can be concluded that the use of online board applications and Virtual Reality Videos in the online scientific approach makes learning more effective.

Keywords: Scientific Approach, Online, Media ICT