# THE IMPLEMENTATION OF INTEGRATED ARCHIPELAGO PROBLEM BASED LEARNING (PBL) LEARNING MODELS TO IMPROVE STUDENT LEARNING OUTCOMES IN VIRUS MATERIALS 

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#### Abstract

This research was conducted based on the background of low student learning outcomes due to the difficulty of students in understanding the class X virus material in MA Plus Darul Hufadz. This is because the teaching process still uses the lecture method and the students' difficulties in visualizing the form of a microscopic virus. This study aims to obtain information whether the application of the Learning Based Learning (PBL) learning model that integrates artificial media on viral material can improve the learning outcomes of class X-A students at MA Plus Darul Hufadz. The method used in this study is the PreExperimental Design method with the One-Group Pre-test and Post-test research design. Pretest. The results of the research data were obtained by pretest and posttest. The average score of students' pretest was $36.77 \%$ and the average value of student posttet was $76.45 \%$. It can be concluded that there is an increase in student learning outcomes between before and after the treatment is given. The instrument in this study is 10 multiple-choice objective tests. The results of this research are then analyzed using the help of IBM SPSS 20.00 for Windows software program which includes normality test, homogeneity test and hypothesis test (t-test). Based on the results of the analysis and hypothesis the significant value with $t$ test is 0.00 or less than 0.05 . Then the conclusion that can be taken that Ha is accepted or there is a difference between pretest and posttest data and shows that the application of Problem Based Learning (PBL) learning models that integrated artificial media can improve student learning outcomes in virus material


Keywords: PBL Model, Artificial Media, Learning Outcomes

