

## ABSTRACT

**Nelly Br. Pakpahan, NIM 4163342026 (2016). The Implementation of Project Based Learning To Improve Scientific Process Skill On Respiratory System For Grade XI MIA SMA Negeri 2 Tebingtinggi Academic Year 2019/2020.**

This research aims is knowing the improve in student's scientific process skill by using the Project Based Learning model, knowing student's understanding of the respiration system by implementing project based learning and knowing the results of student's scientific process skills with conventional learning. The sample on this research was taken by purposive sampling. Scientific process skills improved by using Project-Based Learning models in the experimental class. This is evidenced by the average value obtained in the experimental class is 87.34 while in the direct class is 25.11. Data analyzed by scientific process skill assessment. In the experimental class the average of observing is 7.75 with a high category, the average of classifying is 8 with a high category, the average of interpreting is 7.4 with a high category, the average of predicting is 7.2 with the high category, the average of asking questions is 7.1 with a high category, the average of hypothesis is 5 with enough categories, the average of planning an experiment is 6.7 with a high category, the average of applying the concept is 6.5 with a high category and the average of communicating is 6.9 with a high category. Whereas in direct class, the average of observing is 2.05 with low category, the average of classifying 5.8 with sufficient category, the average of interpreting is 1.5 with very low category, the average of predicting is 3.7 with low category, average of asking questions is 0.5 with a very low category, the average of hypothesis 2.6 with a low category, the average of planning an experiment is 0.5 with a very low category, the average of applying the concept is 1.0 with a very low category and average of communicating is 0.1 with a very low category.

**Keywords:** Scientific Process Skills, Project Based Learning, Student, Respiratory System.

