

THE COMPARISON BETWEEN POE (PREDICT-OBSERVE-EXPLAIN) AND TPS
(THINK-PAIR-SHARE) LEARNING MODEL ON STUDENT'S LEARNING
ACHIEVEMENT, ACTIVITY AND CRITICAL THINKING SKILL ON
HUMAN CIRCULATORY SYSTEM IN GRADE XI IA SMA
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ABSTRACT

This study aims to investigate the comparison of student learning achievement, critical thinking skill and activity between POE (Predict-Observe-Explain) and TPS (Think-Pair-Share) learning model on the topic human circulatory system. A quasi experimental research with equivalent post test control group design was used in this study. The population of this study was all of grade XI IA students of SMA Negeri 2 Balige. There were 2 classes chosen as the sample by applying cluster random sampling technique. One class was taught by POE (Predict-Observe-Explain) model while another one class was taught by TPS (Think-Pair-Share) model. Instruments test used consist of cognitive test in the multiple choice (25 questions) and essay test (5 questions), critical thinking test in the essay form (5 questions) and observation sheet for activity.

Based on data analysis, the average value of posttest in POE group higher than TPS group (POE group = $80.31 \pm 6.51 > \text{TPS group} = 78.44 \pm 8.57$). While based on t -test analysis, t_{obs} less than t_{table} with $\alpha=0.05$ and $df=62$ ($t_{\text{obs}} = 1.010 < t_{\text{table}} = 1.669$). It means that H_a was rejected and H_0 was accepted, there was no a significant difference of student learning achievement between POE (Predict - Observe - Explain) with TPS (Think - Pair - Share) learning model. Then, the average value of critical thinking posttest in POE group was higher than TPS group ($79.81 \pm 5.71 > 70.6 \pm 7.18$) with t_{obs} higher than t_{table} ($t_{\text{obs}} = 5.761 > t_{\text{table}} = 1.669$). It means H_a is accepted so there was significant difference of student's critical thinking skill that taught by POE (Predict - Observe-Explain). The observation results show that students' activity in both research classes is significantly different. The students in POE class were more active than students in TPS class by the average of percentage of 60.55% and 50.25% respectively. The result of hypothesis test for student activity show that $t_{\text{count}} = 4.793 > t_{\text{table}} = 1.669$. It means H_a is accepted that students' activity in POE class is higher than students' activity in TPS class.

Keywords: *POE (Predict-Observe-Explain) model, TPS (Think - Pair - Share), critical thinking skill, students' activity, learning achievement.*