

ABSTRACT

THE IMPLEMENTATION OF GUIDING INQUIRY AND PBL IN HEAT AND TEMPERATURE LEARNING TO INCREASE STUDENT'S CRITICAL THINKING ABILITY

By

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Student's critical thinking ability can be increased through guiding inquiry and PBL. Critical thinking ability was measured by achieving critical thinking indicators which consist of MPS (Memberikan Penjelasan Sederhana/give simple explanation), MPLL (Memberikan Penjelasan Lebih Lanjut/give sustain explanation) and MST (Menerapkan Strategi dan Taktik/apply the strategy and trick)

The aims of this research were to know there were average differences of critical thinking ability, result of cognitive aspect, psychomotor, characteristic behavior and student's social skill in studying physics through guiding inquiry and PBL. The experimental design in this research used *Pre-Eksperimental Design* with the type of *One-Group Pretest-Posttest Design*. Data analysis technique of student's critical thinking used *gain* and *N-gain* score, while hypothesis testing used *Paired Sample T Test* and *Independent Sample T Test*.

Based on *N-gain* average score, it resulted the average of student's critical thinking at guiding inquiry class was 0,68 (medium category) and based on *gain* score, it resulted average increasing score was 66,45%. In PBL class was 0,77 (high category) with average increasing score was 69,31%. The result indicated that PBL was more effective to increase student's critical thinking ability for learning. In cognitive aspect, the percentage of student's average score in PBL class which achieve KKM was 94,44% or higher than guiding inquiry class which achieve only 89,47%. In psychomotor aspect, the percentage of student's average in both guiding inquiry and PBL class achieved 100%. In characteristic behavior aspect, the percentage of student's average score in PBL class achieved *satisfying* category for 92,59% or higher than guiding inquiry class for 87,72%. In social skill aspect, the percentage of student's average score in PBL class reached *satisfying* and *very good* category for 94,44% or higher than PBL class which reach 91,44%.

Key word: Critical thinking ability, Guiding inquiry, PBL.

