ABSTRAK

PENGARUH MODEL PROJECT BASED LEARNING TERHADAP KETERAMPILAN CRITICAL THINKING, CREATIVE THINKING, COLLABORATION, & COMMUNICATION (4C) FISIKA SISWA DI SMA

Penelitian ini bertujuan untuk mengetahui perbedaan keterampilan *critical thinking, creative thinking, collaboration, & communication* (4C) siswa akibat pengaruh penerapan model *project based learning* (PjBL) dan pembelajaran konvensional pada materi pokok suhu dan kalor. Penelitian ini juga bertujuan untuk mengetahui peningkatan masing-masing keterampilan *critical thinking, creative thinking, collaboration, & communication* (4C). Jenis penelitian ini adalah kuasi eksperimen. Sampel dalam penelitian ini adalah dua kelas XI MIA SMA Negeri 12 Medan. Hasil penelitian ini menunjukkan bahwa terdapat perbedaan keterampilan *critical thinking, creative thinking, collaboration, & communication* (4C) siswa akibat pengaruh penerapan model *project based learning* (PjBL) dibandingkan pembelajaran konvensional pada materi pokok Suhu dan Kalor di kelas XI MIA Semester I SMA Negeri 12 Medan T.P. 2019/2020. Peningkatan pada keterampilan *critical thinking* siswa adalah 71% (tinggi), dan peningkatan indikator tertinggi dan terendah adalah mengatur strategi dan taktik 86% (tinggi) dan membuat inferensi 61% (sedang). Peningkatan keterampilan *creative thinking* siswa sebesar 72% (tinggi), dan peningkatan indikator tertinggi dan terendah adalah *flexibility* 93% (tinggi) dan *elaboration* 65% (sedang). Peningkatan keterampilan *collaboration* siswa sebesar 61% (sedang), dan peningkatan indikator tertinggi dan terendah adalah adalah menghormati orang lain 76% (tinggi) dan mengatur pekerjaan 47% (sedang). Peningkatan terakhir adalah keterampilan *communication* siswa yaitu 51% (sedang), dan peningkatan indikator tertinggi dan terendah adalah menulis secara saintifik 73% (tinggi) dan membaca secara saintifik 25% (rendah).

Kata kunci: model *project based learning*, keterampilan *critical thinking*, keterampilan *creative thinking*, keterampilan *collaboration*, keterampilan *communication*, fisika

ABSTRACT

THE INFLUENCE OF PROJECT BASED LEARNING MODEL TO CRITICAL THINKING, CREATIVE THINKING, COLLABORATION, & COMMUNICATION (4C) SKILL OF PHYSICS STUDENT AT SENIOR HIGH SCHOOL

This study aims to determine differences in students' critical thinking, creative thinking, collaboration & communication (4C) skills due to the influence of the application of the project based learning (PjBL) model and conventional learning on the subject matter of temperature and heat. This study also aims to determine the improvement of each critical thinking, creative thinking, collaboration, & communication (4C) skills. This type of research is quasi-experimental. The sample in this study were two classes XI MIA SMA Negeri 12 Medan. The results of this study indicate that there are differences in students' critical thinking, creative thinking, collaboration & communication (4C) skills due to the influence of the application of the project based learning (PjBL) model compared to conventional learning on the subject matter of Temperature and Heat in Class XI MIA Semester I of SMA Negeri 12 Medan TP 2019/2020. The increase in students' critical thinking skills was 71% (high), and the increase in the highest and lowest indicators was managing strategy and tactics 86% (high) and making 61% inference (medium). The increase in students' creative thinking skills was 72% (high), and the increase in the highest and lowest indicators was 93% flexibility (high) and elaboration 65% (medium). Increased student collaboration skills by 61% (medium), and the increase in the highest and lowest indicators is respecting others 76% (high) and managing work 47% (medium). The last improvement was the students' communication skills, namely 51% (medium), and the increase in the highest and lowest indicators was scientifically writing 73% (high) and scientific reading 25% (low).

Keywords: project based learning model, critical thinking skills, creative thinking skills, collaboration skills, communication skills, physics