

# ANALISIS MOTIVASI BELAJAR SISWA SMP DALAM PEMBELAJARAN IPA BERBASIS STEM

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## ABSTRAK

Ilmu pengetahuan dan teknologi yang semakin berkembang pesat menuntut manusia untuk lebih meningkatkan kemampuan dirinya untuk dapat bersaing dalam lingkup nasional maupun global. Tidak hanya dibutuhkan kemampuan kognitif tetapi juga perlu *softskills* yang mendukung keterampilan pada abad 21. Pembelajaran berbasis STEM (*Science, Technology, Engineering, and Mathematics*) merupakan salah satu pembelajaran yang mampu melatih keterampilan abad 21 tersebut. Tujuan penelitian ini adalah untuk mengetahui perubahan motivasi belajar siswa SMP pada pembelajaran IPA berbasis STEM. Motivasi yang diukur mencakup 5 komponen yaitu *intrinsic motivation*, *self-determination*, *self-efficacy*, *career motivation*, dan *grade motivation*. Metode penelitian yang digunakan adalah kuantitatif dan desain penelitian *pre-experimental designs* dengan menggunakan *one group pretest – posttest design*. Sampel penelitian ini adalah siswa SMP kelas VIII dengan jumlah 38 siswa. Motivasi belajar siswa diukur menggunakan instrumen yang diadaptasi dari *Science Motivation Questionnaire II (SMQ)*. Hasil penelitian menunjukkan bahwa motivasi belajar siswa mengalami perubahan setelah diterapkannya pembelajaran IPA berbasis STEM. Komponen *intrinsic motivation* mengalami perubahan dengan klasifikasi rendah (5,14), komponen *career motivation* mengalami perubahan dengan klasifikasi sangat rendah (3,48), komponen *self-determination* mengalami perubahan dengan klasifikasi rendah (6,93), komponen *self-efficacy* mengalami perubahan dengan klasifikasi rendah (6,76), dan *grade motivation* mengalami perubahan dengan klasifikasi sangat rendah (2,10). Dari hasil penelitian, dapat disimpulkan bahwa setelah diterapkannya pembelajaran IPA berbasis STEM, secara keseluruhan motivasi belajar siswa pada kelima komponen yang diukur mengalami peningkatan.

**Kata-kata kunci:** Pembelajaran IPA berbasis STEM, Motivasi Belajar

# ANALYSIS OF LEARNING MOTIVATION IN STEM-BASED SCIENCE LEARNING ON JUNIOR HIGH SCHOOL

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## ABSTRACT

Science and technology are growing rapidly demanding human to further enhance his ability to compete in national as well as global scope. Not only required cognitive abilities but also required softskill which included 21st century skills. STEM-based learning (Science, Technology, Engineering, and Mathematics) is one of the lessons that can train 21st century skills. This research was conducted to determine the change of learning motivation in STEM-based science learning on junior high school student. The measured motivational profile includes 5 components such as intrinsic motivation, self-determination, self-efficacy, career motivation, and grade motivation. The research method used is quantitative and pre-experimental designs research design using one group pretest - posttest design. The sample of this research is the students of junior high school class VIII with the number of 38 students. Students' science learning motivation profile measured using an instrument adapted from Science Motivation Questionnaire II (SMQ). The results showed that the student's learning motivation was changed toward STEM-based science learning. This can be seen from the improvement (gain) of five components of motivation that were measured. The result shows that the intrinsic motivation component was changed with a low classification (5.14), the career motivation component was changed with a very low classification (3.48), the self-determination component was changed with a low classification (6.93), the self-efficacy component was changed with low classification (6.76), and grade motivation was changed with a very low classification (2.10). From the results of the study, it can be concluded that STEM-based science learning can improve the learning motivation.

**Keywords:** STEM-based Science Learning, Learning Motivation