

**IMPLEMENTASI PEMBELAJARAN BERBASIS STEM  
MELALUI PROJECT BASED LEARNING DALAM MENINGKATKAN  
KEMAMPUAN BERPIKIR KREATIF DAN SIKAP KEWIRAUSAHAAN  
SISWA PADA KONSEP SISTEM PENCERNAAN**

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**ABSTRAK**

Penelitian ini dilakukan untuk mempelajari bagaimana implementasi pembelajaran berbasis STEM melalui *project based learning* dalam meningkatkan kemampuan berpikir kreatif dan sikap kewirausahaan siswa pada konsep sistem pencernaan. Penelitian ini menggunakan metode *quasi experiment* dengan desain *the static group pretest-posttest*. Subjek dalam penelitian ini sebanyak 58 siswa kelas XI SMK Kesehatan Bhakti Kencana Bandung. Data diolah melalui perhitungan *N-gain*, uji normalitas, uji homogenitas, dan uji-t. Hasil penelitian menunjukkan bahwa pembelajaran berbasis STEM melalui *project based learning* terlaksana sesuai dengan sintaks. Hasil analisis data menunjukkan implementasi pembelajaran berbasis STEM melalui *project based learning* dapat membantu siswa meningkatkan kemampuan berpikir kreatif dengan *N-gain* 0,71 (kategori tinggi) yang lebih baik daripada implementasi *project based learning non STEM* dengan *N-gain* 0,26 (kategori rendah). Hasil analisis data menunjukkan rata-rata sikap kewirausahaan kelas eksperimen memperoleh skor 80 yang lebih baik daripada kelas kontrol dengan skor 66,5. Siswa memberikan tanggapan positif terhadap pembelajaran, pada kelas eksperimen sebanyak 78,17% dan kelas kontrol sebanyak 69,41%. Berdasarkan hasil penelitian dapat disimpulkan bahwa implementasi pembelajaran berbasis STEM melalui *project based learning* dapat meningkatkan kemampuan berpikir kreatif dan sikap kewirausahaan siswa.

**Kata kunci:** STEM, *Project Based Learning*, Kemampuan Berpikir Kreatif, Sikap Kewirausahaan.

**IMPLEMENTATION OF STEM BASED LEARNING THROUGH PROJECT  
BASED LEARNING IN IMPROVING THE CAPACITY OF STUDENTS'  
CREATIVE THINKING AND ENTREPRENEURSHIP ATTITUDE AT THE  
DIGESTIVE SYSTEM CONCEPT**

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**ABSTRACT**

This research was conducted to investigate how the implementation of STEM based learning through project based learning in improving the students' ability of creative thinking and entrepreneurship attitude on the digestive system concept. This research used quasi experiment method with static group pretest-posttest design. This study involved 58 students from class XI Bhakti Kencana Health Vocational High School in Bandung as the research subject. This study uses N-gain calculation, normality test, homogeneity test, and t-test as the data processing techniques. The results showed that the implementation of STEM-based learning through project based learning was performed in accordance with the syntax. The results of the data analysis shows that the implementation of STEM based learning through project based learning can help students improve their creative thinking ability with N-gain 0.71 (high category) better than non-STEM project based learning implementation with N-gain 0.26 (low category). Research finding shows that the average of entrepreneurship attitude in experiment class get score 80 better than control class with score 66,5. Students gave positive responses to the learning, in the experimental class as much as 78,17% and the control class as much as 69,41%. Based on the results of the research can be concluded that the implementation of STEM-based learning through project based learning can improve the students' ability of creative thinking and entrepreneurship attitude.

**Keyword:** STEM, Project based Learning, Abilities of Creative Thinking, Entrepreneurship Attitude.