

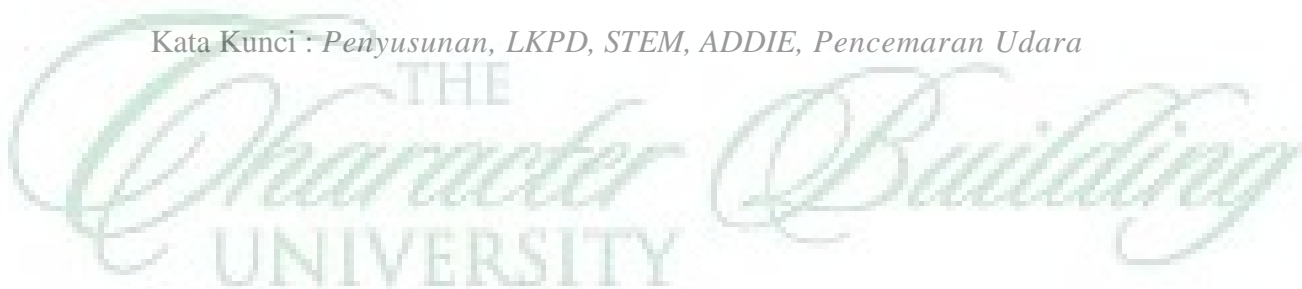
**PENYUSUNAN LKPD BERBASIS STEM (SCIENCE, TECHNOLOGY,  
ENGINEERING, AND MATHEMATICS) PADA SUB MATERI  
PENCEMARAN UDARA DI KELAS X MIA SMA  
SWASTA DHARMA PANCASILA  
T.P 2019/2020**

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**Abstrak**

Penelitian ini bertujuan untuk menyusun dan menghasilkan lembar kegiatan peserta didik (LKPD) berbasis pendekatan *Sains, Technology, Engineering And Mathematics* (STEM) pada Materi Pencemaran Udara. penelitian ini dilakukan di SMA Dharma Pancasila dari bulan agustus sampai oktober. Desain penelitian yang digunakan adalah jenis penelitian dan pengembangan. Subjek penelitian ini adalah Ahli Materi, Ahli Pembelajaran, Guru bidang studi Biologi dan siswa kelas XI-MIA-2 SMA Dharma Pancasila. Pengumpulan data dilakukan dengan instrumen berupa lembar tanggapan/respon. Analisis data menggunakan analisis deskriptif kuantitatif dan kualitatif. Penyusunan LKPD berbasis pendekatan STEM dilakukan dengan menggunakan model ADDIE. Hasil penelitian menunjukkan bahwa penyusunan LKPD berbasis pendekatan STEM berdasarkan Penilaian Ahli Materi 83,5% dengan kriteria sangat layak, penilaian Ahli Pembelajaran 69,58% dengan kriteria layak, penelitian Guru Bidang Studi Biologi 97,91% dengan kategori sangat layak sedangkan hasil tanggapan/respon dari peserta didik 96,36% dengan kriteria penilaian baik.

Kata Kunci : *Penyusunan, LKPD, STEM, ADDIE, Pencemaran Udara*



STEM-BASED LKPD DEVELOPMENT (SCIENCE, TECHNOLOGY,  
ENGINEERING, AND MATHEMATICS) IN AIR POLLUTION  
SUB MATERIALS IN CLASS X MIA SMA DHARMA  
PRIVATE VOCATIONAL SCHOOL PANCASILA  
T.P 2019/2020

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**Abstract**

This study aims to design and produce student activity sheets (LKPD) based on the Science, Technology, Engineering And Mathematics (STEM) approach on Air Pollution Material. The research design used is the type of research and development. The subjects of this study were Material Expert, Learning Expert, Biology study teacher and class XI-MIA-2 students of Dharma Pancasila High School. Data collection was carried out with instruments in the form of response sheets. Data analysis uses quantitative and qualitative descriptive analysis. The compilation of LKPD based on the STEM approach is done by using the ADDIE model, namely through the Analysis, Disign, Development, Implementation and Evaluation stages but this research only reaches the development stage due to the limited research time. in this model every stage is revised so that it gets a better LKPD product. The results showed that the preparation of LKPD based on the STEM approach based on material expert assessment obtained an average percentage of 83.5% with very decent criteria, assessment of learning experts obtained an average percentage of 69.58% with feasible criteria, teacher research in the field of Biology obtained a percentage an average of 97.91% with a very decent category while the results of the responses / responses from students obtained an average percentage of 96.36% with good assessment criteria.

Keywords: *Drafting, LKPD, STEM, ADDIE, Air Pollution*