

**PENGEMBANGAN LEMBAR KERJA PESERTA DIDIK (LKPD) BERBASIS
SCIENCE, TECHNOLOGY, ENGINEERING, MATHEMATICS (STEM)
PADA MATERI EKOSISTEM KELAS X MIA DI
SMA NEGERI 16 MEDAN**

Juli Estika Simbolon

(NIM. 4153341025)

ABSTRAK

Penelitian ini bertujuan untuk mengetahui tingkat kelayakan Lembar Kerja Peserta Didik (LKPD) berbasis *Science, Technology, Engineering and Mathematics* (STEM) pada materi ekosistem di kelas X MIA SMA Negeri 16 Medan. Jenis penelitian yang digunakan adalah penelitian penelitian dan pengembangan (R&D) dengan desain yang diadaptasi dari model 4-D. Analisis data dalam penelitian ini adalah deskriptif berupa daftar check list yang dirangkum dalam bentuk tabel skala likert dan skala Guttman. Subjek penelitian ini yaitu dua dosen ahli materi, dua dosen ahli pendidikan, dua guru bidang studi biologi dan siswa kelas X MIA SMA Negeri 16 Medan. Objek penelitian ini adalah kelayakan bahan ajar berupa Lembar Kerja Peserta Didik (LKPD) berbasis pendekatan *Science, Technology, Engineering, and Mathematics* (STEM) materi ekosistem. Hasil penelitian menunjukkan Penilaian ahli materi berkategori sangat layak, persentase penilaian ahli pendidikan berkategori sangat layak, persentase penilaian guru bidang studi biologi berkategori sangat layak, persentase respon siswa pada uji perorangan berkategori sangat layak, persentase respon siswa pada uji kelompok kecil berkategori sangat layak, persentase respon siswa pada uji kelompok terbatas sangat layak, dan persentase respon siswa pada uji lapangan terbatas sangat layak.

Kata kunci : Penelitian dan pengembangan, LKPD, STEM (*Science, Technology, Engineering, Mathematics*), Ekosistem

**DEVELOPMENT OF STUDENTS WORK SHEET APPROACH TO STEM
(SCIENCE, TECHNOLOGY, ENGINEERING, MATHEMATICS) WITH
THE TOPICS OF ECOSYSTEM CLASS X OF SCIENCE IN
SMA N 16 MEDAN**

Juli Estika Simbolon
(NIM. 4153341025)

ABSTRACT

This study aims to determine the level of feasibility of student-based worksheets Science, Technology, Engineering and Mathematics (STEM) on ecosystem material in X MIA SMA Negeri 16 Medan class. The type of research used is development research with a design adapted from the 4-D model. Data analysis in this study is descriptive in form of a check list that is summarized in the form of a briquette scale table and guttman scale. The subjects of this study were two material lectures, two education expert lectures, two biology study teachers and X MIA SMA Negeri 16 Medan student class. The object of this research is the feasibility of teaching material in the form of student worksheet based on the ecosystem Science, Technology, Engineering, Mathematics (STEM) approach. The result showed that the assessment of material expert categorized as very feasible, the percentage of the assessment of education expert categorized as very feasible, the percentage of the assessment of teachers in the field of biology was very feasible. The percentage of student responses in the individual test categorized as very feasible, the percentage of student responses in the small grup test is very feasible, the percentage of student responses in the limited group test is very feasible, and the percentage of student responses in the field test is very feasible.

Keywords: research and development, student worksheet, STEM (*Science, Technology, Engineering, Mathematics*), Ecosystem.