ABSTRAK

PENGEMBANGAN LKPD MITIGASI BENCANA ALAM BERBASIS PJBL-STEM BERBANTUAN MICRO:BIT UNTUK MENINGKATKAN *SELF AWARENESS* DAN *CREATIVE PROBLEM SOLVING*

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Penelitian ini bertujuan mendeskripsikan LKPD mitigasi bencana alam berbasis PjBL-STEM yang valid untuk menstimulus *self awareness* dan *creative problem solving* peserta didik pada topik pemanasan global, serta kepraktisan dan efektivitas dari LKPD tersebut. Jenis penelitian ini adalah penelitian pengembangan dengan desain 4D yang terdiri dari langkah *define, design, develop,* dan *dessiminate*. Teknik analisis data yang digunakan adalah analisis persentase terhadap skor validitas dan kepraktisan, serta analisis statistik untuk efektivitas. Berdasarkan hasil analisis data yang telah dilakukan, dapat disimpulkan bahwa: 1) LKPD Mitigasi Bencana Alam Berbasis PjBL-STEM yang dikembangkan memuat 2 kegiatan yang berisi aktivitas *reflection, research, discovery, application* dan *communication* pada masing-masing kegiatan. LKPD dilengkapi dengan penggunaan media pendukung dan juga dilengkapi dengan simbol yang akan membantu aktivitas peserta didik menyelesaikan projek dan aktivitas guru dalam melakukan penilaian. LKPD mitigasi bencana alam berbasis PjBL-STEM dinyatakan valid secara isi, bahasa, media dan desain berdasarkan hasil penilaian; 2) LKPD mitigasi bencana alam berbasis PjBL-STEM dinyatakan praktis ditinjau dari segi keterlaksanaan, kemenarikan, dan keterbacaan, terkategori sangat praktis, sehingga dapat digunakan pada pembelajaran Fisika SMA, Kurikulum Merdeka, Fase E, topik Pemanasan Global; serta 3) LKPD mitigasi bencana alam berbasis PjBL-STEM dinyatakan efektif dalam meningkatkan kemampuan *self awareness* dan *creative problem solving* peserta didik pada Topik Pemanasan Global.

Kata Kunci: *Creative Problem Solving*, LKPD, PjBL-STEM, *Self Awareness*

ABSTRACT

**DEVELOPMENT OF NATURAL DISASTER MITIGATION LKPD
BASED ON PJBL-STEM ASSISTED BY MICRO:BIT
TO INCREASE SELF AWARENESS AND
CREATIVE PROBLEM SOLVING**

By

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This research aims to describe a valid PjBL-STEM-based natural disaster mitigation worksheet to stimulate students' self-awareness and creative problem-solving on the topic of global warming, as well as the practicality and effectiveness of the worksheet. This type of research is development research with 4D design which consists of the steps define, design, develop, and describe. The data analysis technique used is a percentage analysis of validity and practicality scores, as well as statistical analysis for effectiveness. Based on the results of the data analysis that has been carri out, it can be conclud that: 1) The developed PjBL-STEM Based Natural Disaster Mitigation LKPD contains two activities containing reflection, research, discovery, application, and communication activities for each activity. LKPD is equipped with the use of supporting media and is also equipped with symbols that will help students activities in completed projects and teachers' activities in carried out assessments. The PjBL-STEM-based natural disaster mitigation LKPD was declared valid in terms of content, language, media, and design based on the assessment results; 2) The PjBL-STEM-based natural disaster mitigation LKPD is declared practical in terms of implementation, attractiveness, and readability, categorized as very practical so that it can be used in high school Physics, Merdeka Curriculum, Phase E, Global Warming topics; and 3) PjBL-STEM-based natural disaster mitigation LKPD was declared effective in increasing students' self-awareness and creative problem-solving abilities on the topic of Global Warming.

Keywords: Creative Problem Solving, PjBL-STEM, Self Awareness, Worksheet