

ABSTRACT

STUDENTS WORKSHEET DEVELOPMENT BASED LEARNING CYCLE 7-E GLOBAL WARMING MATERIAL FOR IMPROVING CRITICAL THINKING STUDENTS ABILITY

By

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Students' worksheets were used by the teacher at school. Generally, it did not fulfill the innovative learning criterion so it often makes students were bored in studying. Therefore, to solve the weakness from conventional students' worksheet (LKPD). *LKPD* were needed to develop physics *LKPD* learning cycle based in 7E. This research design modified from development model of Gall et al, 2003, which was done in the seven steps of research, they are : need analysis, product planning , expert test, product revision 1, preliminary field testing, product revision 2, main field testing. The product research was done at SMAN 1 Kota Agung, Tanggamus district. The instrument of developmental research was validated by 3 lecturers, they are: physicist for validating matter experts, curriculum and learning technology expert for validating media expert, and language expert for linguist. The result of effectivity test in using teaching materials revealed N-gain experimental class 0,7 with the criterion "high" and N-gain control class 0,4 with the "medium" criterion. There is significant difference in the average of ability in critical analysis of students at experimental class and control class ($p=0,000$). The research benefit and attractiveness of the students in the instrument which was row development were 91,31% beneficial criterion and 92,82% interesting criterion.

Key Words: Critical thinking, students' worksheet, model learning cycle 7E, global warming.

ABSTRAK

PENGEMBANGAN LEMBAR KERJA PESERTA DIDIK (LKPD) *LEARNING CYCLE 7-E* MATERI PEMANASAN GLOBAL UNTUK MENUMBUHKAN KETERAMPILAN BERPIKIR KRITIS SISWA

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LKPD yang digunakan oleh guru di sekolah pada umumnya belum memenuhi kriteria pembelajaran inovatif sehingga seringkali membuat siswa jenuh dalam belajar. Oleh karena itu, untuk menanggulangi kelemahan dari LKPD konvensional dibutuhkan pengembangan LKPD pada pembelajaran fisika. Penelitian ini bertujuan untuk mengembangkan LKPD fisika berbasis *learning cycle 7-E*. Desain penelitian ini dimodifikasi dari model pengembangan Gall, dkk (2003) yang dilaksanakan dalam tujuh tahap penelitian, yaitu analisis kebutuhan: studi literatur dan studi lapangan, perencanaan produk awal, uji ahli, revisi produk 1, uji lapangan awal, revisi produk 2, dan uji lapangan besar. Uji coba pemakaian produk dilaksanakan di SMA N 1 Kotaagung Kabupaten Tanggamus. Berdasarkan hasil uji efektivitas penggunaan bahan ajar, didapatkan N-gain kelas eksperimen sebesar 0,7 dengan kriteria “tinggi” dan N-gain kelas kontrol sebesar 0,4 dengan kriteria “sedang”. Selain itu, terdapat perbedaan yang signifikan nilai rata-rata keterampilan berpikir kritis siswa kelas eksperimen dengan kelas kontrol yang ditunjukkan dengan nilai ($p=0,000$). Hasil uji kemanfaatan bahan ajar kepada siswa memiliki persentase 91,31% dengan kriteria sangat bermanfaat dan uji kemenarikan bahan ajar dengan persentase 92,82% dengan kriteria sangat menarik.

Kata kunci: LKPD, keterampilan berpikir kritis, model *learning cycle 7-E*, pemanasan global.