

ABSTRAK

EFEKTIVITAS LKPD BERBASIS PROYEK PENGOLAHAN LIMBAH DAUN KERING UNTUK MELATIHKAN KETERAMPILAN BERPIKIR KRITIS DAN *SUSTAINABILITY LITERACY*

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Penelitian ini bertujuan untuk mengetahui efektivitas LKPD berbasis proyek pengolahan limbah daun kering untuk melatih keterampilan berpikir kritis dan *sustainability literacy* peserta didik pada materi energi alternatif. Penelitian ini dilakukan di SMAN 1 Tanjung Sari menggunakan metode quasi eksperimen dengan desain *one group pretest-Posttest* yang melibatkan dua kelas eksperimen yaitu kelas eksperimen 1 dan kelas eksperimen 2. Instrumen penelitian berupa *Pretest* dan *Posttest* yang mengacu pada hasil uji *paired sample t-test* menunjukkan adanya peningkatan yang signifikan antara nilai *Pretest* dan *Posttest* pada keterampilan berpikir kritis dan *sustainability literacy* dengan ($\text{sig} < 0,05$). Perhitungan *N-Gain* keterampilan berpikir kritis dan *sustainability literacy* menunjukkan peningkatan dan berkategori tinggi untuk kedua kelas eksperimen. Hasil uji perbedaan One Way Anova berdasarkan rata-rata *N-Gain* keterampilan berpikir kritis dan *sustainability literacy* per gaya belajar menunjukkan nilai signifikansi $> 0,05$ yang artinya tidak ada perbedaan *N-Gain* yang signifikan antar peserta didik berdasarkan gaya belajar visual, auditori, dan kinestetik. Hasil *N-Gain* keterampilan berpikir kritis per Gaya belajar sebesar 0,74 pada gaya belajar auditori. Sedangkan hasil *N-Gain sustainability literacy* per Gaya belajar sebesar 0,77 pada gaya belajarkinestetik. Dengan demikian, LKPD berbasis proyek pengolahan limbah daun kering efektif dalam melatih keterampilan berpikir kritis dan *sustainability literacy*.

Kata Kunci: LKPD berbasis proyek, pengolahan limbah daun kering, keterampilan berpikir kritis, *sustainability literacy*, gaya belajar.

ABSTRAK

THE EFFECTIVENESS OF LKPD BASED ON DRY LEAF WASTE PROCESSING PROJECTS TO TRAIN CRITICAL THINKING SKILLS AND SUSTAINABILITY LITERACY

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This study aims to determine the effectiveness of LKPD based on dry leaf waste processing project to train critical thinking skills and sustainability literacy of students on alternative energy material. This study was conducted at SMAN 1 Tanjung Sari using a quasi-experimental method with a one group pretest-posttest design involving two experimental classes, namely experimental class 1 and experimental class 2. The research instrument in the form of Pretest and Posttest referring to the results of the paired sample t-test showed a significant increase between the Pretest and Posttest scores on critical thinking skills and sustainability literacy with ($\text{sig} < 0.05$). The calculation of N-Gain of critical thinking skills and sustainability literacy showed an increase and was categorized as high for both experimental classes. The results of the One Way Anova difference test based on the average N-Gain of critical thinking skills and sustainability literacy per learning style showed a significance value > 0.05 , which means there was no significant difference in N-Gain between students based on visual, auditory, and kinesthetic learning styles. The results of N-Gain of critical thinking skills per learning style were 0.74 in the auditory learning style. Meanwhile, the N-Gain result for sustainability literacy per learning style was 0.77 for the kinesthetic learning style. Thus, the student worksheet based on the dry leaf waste processing project is effective in training critical thinking skills and sustainability literacy.

Keyword : Project-based LKPD, dry leaf waste processing, critical thinking skills, sustainability literacy, learning styles.