ABSTRAK

PENGEMBANGAN LKPD IPA BERBASIS STEAM PADA MATERI PANAS DAN PERPINDAHANNYA UNTUK MENINGKATKAN KEMAMPUAN LITERASI SAINS SISWA DI KELAS V SEKOLAH DASAR

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Penelitian ini dilatarbelakangi dari rendahnya kemampuan literasi sains peserta didik, serta pembelajaran yang hanya menggnakan buku paket. Penelitian pengembangan ini berdasarkan model pengembangan ADDIE *(Analyze, Design, Develop, Implementation, Evaluation).* Sampel penelitian terdiri dari 62 peserta didik kelas V Sekolah Dasar dan 2 orang guru kelas. Pengumpulan data dilakukan menggunakan metode wawancara, angket dan tes. Hasil uji validasi produk menunjukkan Indeks Aiken holistik kelayakan sebesar 0,802 kategori sangat valid. LKPD IPA berbasis STEAM yang valid adalah LKPD yang mengintegrasikan berbagai disiplin ilmu yaitu sains, teknologi, teknik, seni dan matematika, kontekstal dalam satu pendekatan pembelajaran yang utuh. Uji kepraktisan diukur dari keterlaksanaan pembelajaran berbasis STEAM, dengan nilai rata-rata keterlaksanaan 4,89 respon pendidik dan 4,90 respon peserta didik kategori sangat praktis, artinya semua kegiatan pembelajarannya dapat terlaksana dengan baik sesuai dengan waktu yang diberikan. Capaian kemampuan literasi sains peserta didik menghasilkan nilai rata- rata *Gain* pada kelas eksperimen sebesar 0,72 kategori tinggi dan 0,49 pada kelas kontrol kategori sedang, artinya LKPD IPA berbasis STEAM efektif digunakan. Hasil uji secara keseluruhan menunjukkan LKPD IPA berbasis STEAM valid, praktis dan efektif meningkatkan kemampuan literasi sains peserta didik Sekolah Dasar.

Kata kunci: STEAM, LKPD IPA, Literasi Sains

ABSTRACT

DEVELOPMENT OF STEAM-BASED SCIENCE LKPD ON HEAT MATERIAL AND ITS TRANSFERENCE TO IMPROVE STUDENTS SCIENTIFIC LITERACY ABILITY IN CLASS V ELEMENTARY SCHOOL

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This research was motivated by the low scientific literacy abilities of students, as well as learning that only used textbooks. This development research is based on the ADDIE (Analyze, Design, Develop, Implementation, Evaluation) development model. The research sample consisted of 62 fifth-grade elementary school students and 2 class teachers. Data collection was carried out using interviews, questionnaires, and tests. The product validation test results show the Aiken holistic feasibility index of 0.802, a very valid category. Valid STEAM-based science student worksheets is that integrates various scientific disciplines, namely science, technology, engineering, art, and mathematics, contextually in one complete learning approach. The practicality test is measured by the implementation of STEAM-based learning, with an average implementation value of 4.89 teacher responses and 4.90 student responses in the very practical category, meaning that all learning activities can be carried out well according to the time given. The students' achievement of scientific literacy abilities resulted in an average Gain value in the experimental class of 0.72 in the high category and 0.49 in the control class in the medium category, meaning that the STEAM-based science worksheet was effectively used. The overall test results show that the STEAM-based science student worksheets is valid, practical, and effective in improving the scientific literacy skills of elementary school students.

Keywords: STEAM, Student Worksheets, Scientific Literacy