

ABSTRAK

PENGEMBANGAN E-LKPD IPA TERPADU TIPE *CONNECTED* BERBASIS AKTIVITAS *PROBLEM BASED LEARNING* PADA TOPIK ENERGI UNTUK MENINGKATKAN KETRAMPILAN BERPIKIR SISTEM DAN LITERASI INFORMASI

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Penelitian ini bertujuan untuk mengetahui karakteristik dan efektivitas e-LKPD IPA terpadu tipe *connected* pada topik Energi berbasis aktivitas *Problem Based Learning* dalam meningkatkan keterampilan berpikir sistem dan literasi informasi peserta didik, mengetahui respon dan kepraktisan efektivitas e-LKPD IPA terpadu tipe *connected* yang ditinjau dari peserta didik dan pendidik. Model penelitian pengembangan yang digunakan adalah model 4-D (*Define, Design, Development, Dessiminate*). Subjek penelitian uji coba lapangan terdiri dari kelas eksperimen dan kelas kontrol. Pembelajaran pada kelas eksperimen menggunakan produk e-LKPD IPA terpadu tipe *connected* yang dikembangkan, sedangkan kelas kontrol menggunakan pembelajaran konvensional.

Hasil penelitian menunjukkan bahwa: 1) validitas produk pengembangan e-LKPD IPA Terpadu tipe *connected* berbasis aktivitas *problem based learning* pada materi energi untuk meningkatkan kemampuan berpikir sistem dan literasi informasi peserta didik memenuhi kriteria valid ditinjau dari aspek kesesuaian media dan materi; 2) keefektifan produk pengembangan pada kelas eksperimen untuk meningkatkan kemampuan berpikir sistem dan literasi informasi peserta didik ditinjau dari *n-Gain* berkategori “sedang” sebesar 0,62 dan *effect size* berkategori “sedang” sebesar 0,43; 3) kepraktisan produk pengembangan memiliki keterlaksanaan pembelajaran dengan pencapaian hampir seluruh aktivitas terlaksana di dalam proses pembelajaran dan menarik baik bagi peserta didik maupun pendidik.

Kata Kunci: Berpikir sistem, e-LKPD, Literasi informasi, *Problem Based Learning*, Tipe *connected*

ABSTRACT

DEVELOPMENT OF INTEGRATED SCIENCE E-LKPD TYPES CONNECTED ACTIVITY BASED PROBLEM BASED LEARNING ON THE TOPIC OF ENERGY TO IMPROVE SYSTEMS THINKING SKILLS AND INFORMATION LITERACY

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This research aims to determine the characteristics and effectiveness of the integrated type of science e-LKPD connected on the topic Activity-based energy Problem Based Learning in improving students' systems thinking skills and information literacy, knowing the response and practicality of the effectiveness of the integrated type of science e-LKPD connected viewed from students and educators. The development research model used is the 4-D model (Define, Design, Development, Dessiminate). The field trial research subjects consisted of an experimental class and a control class. Learning in the experimental class uses an integrated type of science e-LKPD product connected developed, while the control class uses conventional learning.

The research results show that: 1) the validity of the Integrated Science e-LKPD development product, Connected type, based on problem based learning activities on energy material to improve students' systems thinking and information literacy skills meets valid criteria in terms of the suitability of media and materials; 2) effectiveness of product development in the experimental class to improve students' systems thinking skills and information literacy in terms of n-Gain in the "medium" category of 0.62 and effect size category "medium" of 0.43; 3) the practicality of the development product has the ability to implement learning by achieving almost all activities carried out in the learning process and is attractive to both students and educators.

Keywords: Systems thinking, e-LKPD, information literacy, Problem Based Learning, Type connected