

## ABSTRACT

### DEVELOPMENT OF STEM INTEGRATED INQUIRY-BASED E-LKPD TO TRAIN CREATIVE THINKING ABILITY AND COLLABORATIVE

Oleh

ADYT ANUGRAH

This study aims to describe STEM-integrated inquiry-based e-LKPD that are valid, practical, and effective for training creative and collaborative thinking skills. This study uses the R&D method with the ADDIE model development design which consists of five stages, namely analysis, design, development, implementation, and evaluation. The data collection instruments used include needs analysis questionnaires, validity test questionnaires, implementation test questionnaires, instrument questions that have been tested for validity, observation sheets, and student responses to the effectiveness of STEM-integrated Inquiry-based e-LKPD. The research was conducted at SMA N 1 Padang Cermin, Pesawaran. The results of the study show that the e-LKPD developed is valid, practical and effective in the learning process to train students' creative and collaborative thinking skills. In the validity test that has been carried out, the results of the e-LKPD development are declared feasible with very valid criteria, with an average validation of media and design as well as materials and constructs obtained a proportion of 94.73% and a construct aspect of 92.93%. Based on the results of the practicality test, which showed an average proportion of readability was 82.82% with good criteria, implementation was 91.30% with very good errors and the positive response of students was 87.45% towards the STEM-integrated inquiry-based e-LKPD. STEM-integrated inquiry-based e-LKPD is effective if after using the e-LKPD there is an increase in students' creative and collaborative thinking skills based on the learning stages contained in the e-LKPD. The effectiveness is shown by the results of the N-gain and paired t-test. There is an increase in the ability to think creatively and collaborate. Then, based on the test results using class control with MANOVA statistics, it shows that the use of e-LKPD has an effect on students' creative and collaborative thinking skills. So that STEM-integrated inquiry-based e-LKPD is developed effectively.

**Keyword:** creative thinking skills, collaborative skill, e-LKPD, inquiry, STEM

## ABSTRAK

### PENGEMBANGAN E-LKPD BERBASIS *INQUIRY* TERINTEGRASI STEM UNTUK MELATIH KEMAMPUAN BERPIKIR KREATIF DAN KOLABORATIF

Oleh  
ADYT ANUGRAH

Penelitian ini bertujuan untuk mendeskripsikan e-LKPD berbasis *inquiry* terintegrasi STEM yang valid, praktis, dan efektif untuk melatih kemampuan berpikir kreatif dan kolaboratif. Penelitian ini menggunakan metode R&D dengan desain pengembangan model ADDIE yang terdiri dari lima tahapan yaitu analyze, design, development, implementation, dan evaluation. Instrumen pengumpulan data yang digunakan meliputi angket analisis kebutuhan, angket uji validitas, angket uji keterlaksanaan, instrumen soal yang sudah diuji kevalidannya, lembar observasi, serta respon peserta didik terhadap keefektifan e-LKPD berbasis *Inquiry* terintegrasi STEM. Penelitian dilakukan di SMA N 1 Padang Cermin, Pesawaran. Hasil penelitian menunjukkan bahwa e-LKPD hasil pengembangan valid, praktis, dan efektif digunakan dalam proses pembelajaran untuk melatih kemampuan berpikir kreatif dan kolaboratif peserta didik. E-LKPD berbasis *inquiry* terintegrasi STEM yang dapat dikatakan valid memuat instruksi dan informasi yang disajikan dengan jelas dan mudah dipahami, fenomena-fenomena yang disajikan diambil dari kehidupan nyata, e-LKPD yang dikembangkan terdapat aktivitas-aktivitas yang menuntut siswa harus aktif melatih kemampuan berpikir kreatif dan kolaboratifnya. E-LKPD berbasis *inquiry* terintegrasi STEM yang praktis untuk melatih kemampuan berpikir kreatif dan kolaboratif merujuk pada sejauh mana e-LKPD dapat digunakan dengan efektif dan efisien dalam praktik di kelas. Kepraktisan e-LKPD yang dikembangkan terdiri atas keterbacaan, keterlaksanaan dan respon peserta didik. Jika siswa dapat membaca, memahami, dan mengikuti instruksi atau informasi yang disajikan dalam e-LKPD dengan mudah maka e-LKPD dikatakan praktis. Dikategorikan efektif jika setelah digunakannya e-LKPD tersebut terdapat peningkatan dalam kemampuan berpikir kreatif dan kolaboratif siswa berdasarkan tahapan-tahapan pembelajaran yang terdapat pada e-LKPD.

**Keyword:** e-LKPD, *inquiry*, kemampuan berpikir kreatif, kemampuan kolaboratif, STEM