

ABSTRAK

Rani Gebyta Sinuraya, NIM 4181111016 (2022). Pengembangan Lembar Kerja Peserta Didik Elektronik (E-LKPD) Berbasis *Problem Based Learning* (PBL) untuk Meningkatkan Kemampuan Pemecahan Masalah Matematis Peserta Didik.

Penelitian ini bertujuan untuk mengetahui kevalidan, kepraktisan, dan keefektifan dari Lembar Kerja Peserta Didik Elektronik (E-LKPD) berbasis *Problem Based Learning* (PBL) yang dikembangkan yang akan digunakan untuk meningkatkan kemampuan pemecahan masalah peserta didik pada materi sistem persamaan linear tiga variabel di kelas X-2 SMA Swasta Katolik Budi Murni 2 Medan. Penelitian ini merupakan jenis penelitian dan pengembangan (*Research and Development*) menggunakan model pengembangan ADDIE (*Analysis, Design, Development, Implementation, and Evaluation*). Subjek uji coba dalam penelitian pengembangan ini adalah siswa kelas X-2 SMA Swasta Katolik Budi Murni 2 Medan T.A. 2022/2023. Uji keterbacaan dilakukan kepada 5 orang peserta didik dan uji coba lapangan dilakukan kepada 35 orang peserta didik. Instrumen yang digunakan dalam penelitian ini adalah (1) lembar angket validasi LKPD; (2) lembar validasi soal *pretest* dan *posttest*; (3) lembar uji keterbacaan; (4) lembar angket kepraktisan LKPD oleh guru; dan (5) angket respon peserta didik. Hasil penelitian menunjukkan bahwa LKPD elektronik yang dikembangkan valid. Hal ini terlihat dari hasil penilaian yang diberikan oleh para validator dengan skor validitas sebesar 3,62 dengan kategori “valid”. LKPD elektronik yang dikembangkan juga praktis dengan skor kepraktisan oleh guru sebesar 3,82 dengan kategori “Sangat Praktis” dan skor uji keterbacaan oleh peserta didik sebesar 3,78 dengan kategori “Sangat Praktis”. Dan keefektifan LKPD elektronik dilihat dari ketuntasan belajar klasikal peserta didik yang mencapai 85,71%, sehingga LKPD elektronik dinyatakan “Efektif” digunakan di dalam kelas. Rata-rata kemampuan pemecahan masalah matematis peserta didik mengalami peningkatan sebesar 34,86% dan melalui uji N-Gain menunjukkan kemampuan pemecahan masalah peserta didik mengalami peningkatan sebesar 0,721 dengan kategori peningkatan tinggi. Serta angket respon peserta didik memperoleh persentase sebesar 82% yang menunjukkan bahwa peserta didik memiliki respon positif terhadap LKPD elektronik yang dikembangkan. Dari hasil penelitian maka dapat disimpulkan bahwa LKPD elektronik yang dikembangkan valid, praktis, efektif digunakan untuk meningkatkan kemampuan pemecahan masalah matematis peserta didik.

Kata Kunci: Pengembangan, LKPD elektronik, problem based learning, kevalidan, kepraktisan, keefektifan, kemampuan pemecahan masalah matematis.

ABSTRACT

Rani Gebyta Sinuraya, NIM 4181111016 (2022). The Development of Electronic Educational Learning (e-LKPD) Based Problem Based Learning (PBL) for Improve Mathematical Problem Solving Abilities.

The study aims to know the validity, practicality, and effectiveness of the developed to electronics LKPD based on the problem based learning (PBL) that will be used to improve students problem solving capabilities on the material of a three-variable system of linear equations in Budi Murni 2 Catholic Senior high school. This research is a type of (research and development) using ADDIE development models (analysis, design, development, development, implementation, and evaluation). Test subject in this development study is catholic senior high school Budi Murni 2 students grade X-2 academic year 2022/2023. The readability test was carried out on 5 students and field trials were carried out on 35 students. The instruments used in this study are (1) LKPD questionnaire validation sheet; (2) validation sheet on pretest and posttest; And (3) readability test sheet; (4) LKPD practicality questionnaire by the teacher; and (5) student response questionnaires. Result of this research is the electronic application is valid. This is seen from the results of assessments given by the validators with a 3.62 validity score in the "valid" category. The electronically developed lto is also practical with 3.82 teacher practical scores under the "very practical" category and the readability test score by students was 3.78 scores under the "very practical" category. And the effectiveness of electronics LKPD is seen from the sharescore of studying the educated that reaches 85.71%, so that the electronic role is pronounced "effective" is used in the classroom. The average mathematical problem solving ability of students has increased by 34.86% and through the N-Gain test it shows that the problem solving ability of students has increased by 0.721 with the high improvement category. And the student response questionnaire obtained a percentage of 82% which indicated that students had a positive response to the developed electronic LKPD. From research it can be deduced that the electronic LKPD application that developed is valid, practical, effective to enhance the ability to solve the mathematics problem of students.

Key words: development, electronic application, the problem of based learning, validan, practicality, effectiveness, the ability to solve mathematical problems.