

ABSTRAK

UTAMI PUSPITA SABILLA MUSTAQIMAH. 2024. **Pengembangan Lembar Kerja Peserta Didik (LKPD) Berbasis *Computational Thinking* pada Materi Rasio di Jenjang SMP**. Program Studi Magister Pendidikan Matematika. Program Pascasarjana. Universitas Siliwangi.

Penelitian ini bertujuan untuk mengembangkan lembar kerja peserta didik (LKPD) yang mengintegrasikan indikator kemampuan berpikir komputasi ke dalam materi rasio. Metode yang digunakan adalah *Research and Development* (RnD) dengan model pengembangan 4 – D yaitu *Define*, *Design*, *Develop*, dan *Disseminate*. Teknik pengumpulan data yaitu observasi lingkungan sekolah, wawancara tidak terstruktur kepada guru, dan kuesioner kepada ahli materi, ahli media, serta peserta didik. Subjek penelitian merupakan 32 peserta didik SMP Al Huda Turalak Tahun Ajaran 2023 – 2024, terdiri dari 8 peserta didik dari kelas VIII dan 24 peserta didik dari kelas VII. Analisis data dilakukan secara kuantitatif deskriptif menggunakan skor tingkat validitas produk, skor kepraktisan produk, *Effect Size* dan nilai *N - Gain*. Hasil penelitian menunjukkan bahwa penilaian produk dari ahli materi (legalitas dan moral, kelayakan isi, kelayakan penyajian, *computational thinking*) dan ahli media (anatomi, kegrafikan, dan kebahasaan) menyatakan “Sangat Valid” dengan perolehan skor sebesar 99% dan 86%. Penilaian kepraktisan produk (materi, bahasa, ketertarikan dan aspek *computational thinking*) mendapat kategori sangat praktis dengan perolehan skor sebesar 86%. Nilai *Effect Size* sebesar 2,2 mendapat kategori “*Strong effect*”, dan nilai *N - Gain* sebesar 0,33 mendapat kategori “Sedang”. Profil kemampuan CT yang dicapai adalah *decomposition* sebesar 79,2%, *abstraction* sebesar 59,2%, *algorithm* sebesar 43,25, dan *pattern recognition* sebesar 19,4%. Sebaran tingkat pencapaian pada kategori “Tinggi” sebesar 20,8%, “Sedang” sebesar 54,2%, “Rendah” sebesar 8,3%, dan “Sangat Rendah” sebesar 16,7%. Maka dapat disimpulkan bahwa produk LKPD layak digunakan sebagai alternatif bahan ajar pada pembelajaran materi rasio serta dapat melatih kemampuan *computational thinking* peserta didik.

Kata kunci: Lembar Kerja Peserta Didik (LKPD), *Computational Thinking*, Rasio.

ABSTRACT

UTAMI PUSPITA SABILLA MUSTAQIMAH. 2024. **Development of Student Worksheet (LKPD) Based on Computational Thinking on Ratio Material at Junior High School Level.** Magister of Mathematics Education. Graduate Program. Siliwangi University.

This study aims to develop student worksheets (LKPD) that integrate indicators of computational thinking skills into ratio materials. The method used is Research and Development (RnD) with the 4-D development model, which includes Define, Design, Develop, and Disseminate stages. Data collection techniques involved school environment observation, unstructured interviews with teachers, and questionnaires for subject material experts, media experts, and students. The research subjects comprised 32 students from Al Huda Turalak Junior High School in the 2023–2024 academic year, including 8 students from grade VIII and 24 students from grade VII. Data analysis was conducted quantitatively using descriptive methods through scores for product validity, product practicality, Effect Size, and N-Gain values. The results showed that the product evaluation by subject material experts (legality and morality, content feasibility, presentation feasibility, and computational thinking) and media experts (layout, graphic design, and language) were rated as "Very Valid" with scores of 99% and 86%, respectively. The product practicality evaluation (content, language, interest, and computational thinking aspects) was rated as "Very Practical" with a score of 86%. The Effect Size value of 2.2 was categorized as a "Strong Effect," and the N-Gain value of 0.33 was categorized as "Moderate." The computational thinking profile achieved includes decomposition at 79.2%, abstraction at 59.2%, algorithms at 43.25%, and pattern recognition at 19.4%. The distribution of achievement levels was categorized as "High" at 20.8%, "Moderate" at 54.2%, "Low" at 8.3%, and "Very Low" at 16.7%. It can be concluded that the LKPD product is suitable for use as an alternative teaching material in ratio lessons and can help develop students' computational thinking skills.

Keyword: Student worksheet (LKPD), *Computational Thinking*, Ratio.