ABSTRAK

Nurani Haji, 2024, Pengembangan Bahan Ajar Berbasis *Problem Based Learning* Pada Materi Getaran Dan Gelombang Untuk Siswa Kelas VIII IPA SMP Negeri 5 Kota Ternate Dimbingan **Ibu Nurlaela Muhammad S.Pd., M.Pd** Pembimbing I dan **Ibu Dr. Hj. Mardia Hi. Rahman, S.Pd.,M.Pd,** Pembimbing II.

Tujuan penelitian ini menghasilkan produk berupa bahan ajar berbasis *problem based learning* pada pembelajaran fisika materi getaran dan gelombang yang valid dan praktis, mengetahui kelayakan produk bahan ajar yang berbasis *problem based learning* menurut ahli, pada pembelajaran fisika materi getaran dan gelombang. Dan mengetahui tanggapan guru terhadap bahan ajar *berbasis problem based learning* pada materi getaran dan gelombang untuk siswa kelas VIII IPA SMP Negeri 5 Kota Ternate. Metode yang digunakan dalam penelitian ini adalah pengembangan ADDIE yaitu: analisis, desain, pengembangan, implementasi dan evaluasi. Uji coba produk terdiri atas validasi oleh ahli materi, ahli media, ahli Bahasa dan 2 guru fisika SMP Negeri 5 Kota Ternate. Pengumpulan data menggunakan pedoman wawancara, lembar validasi ahli dan lembar respon guru. Penelitian ini mengahasilkan produk berupa bahan ajar berbasis *problem based learning* pada materi getaran dan gelombang yang berbentuk buku cetak. Memenuhi kriteria kelayakan sebagai salah satu sumber belajar yang baik. Hal ini sesuai dengan penilaian dari tiga ahli yakni ahli materi, media, Bahasa dan dua guru fisika. Presentasi rata-rata untuk ahli materi pada aspek kelayakan isi 82% termasuk dalam kategori sangat layak, aspek keabsahan 83% kategori sangat layak, aspek penyajian 85% kategori sangat layak, aspek kegrafikan 81% kategori sangat layak dan aspek bahan ajar dengan menerapkan model *problem based learning* 82% kategori sangat layak. Presentasi rata-rata untuk ahli media pada aspek ukuran bahan ajar 83% kategori sangat layak, aspek desain sampul bahan ajar 83% kategori sangat layak, dan aspek desain isi bahan ajar 66% kategori layak. Presentasi rata-rata untuk ahli Bahasa pada aspek komponen kompetensi yang ada pada bahan ajar 83% kategori sangat layak, aspek kesesuain dengan kaidah Bahasa Indonesia yang benar 85% kategori sangat layak, aspek penggunaan Bahasa yang komunikatif 80% kategori layak, aspek kemampuan motifasi peserta didik untuk merespon pembelajaran 81% kategori sangat layak, aspek menumbuhkan rasa ingin tahu 80% kategori layak, aspek pengembangan dan penyajian hasil produk 82% kategori sangat layak dan aspek evaluasi 84% kategori sangat layak. Penilaian dari dua guru fisika. Presentasi rata-rata pada kriteria kecocokan dengan KD 95% kategori sangat baik, pembaharuan materi 100% kategori sangat baik dan kualitas bahan ajar 45% kategori kurang baik perlu direvisi. Dengan demikian bahan ajar berbasis *problem based learning* pada materi getaran dan gelombang layak digunakan.

Kata Kunci: Bahan Ajar, *Problem Based Learning,* Getaran Dan Gelombang

ABSTRACT

Nurani Haji, 2024, Development of Teaching Materials Based on Problem Based Learning on Vibrations and Waves Material for Class VIII Science Students of SMP Negeri 5 Ternate City Guided by **Mrs. Nurlaela Muhammad S.Pd., M.Pd** Supervisor I and **Mrs. Dr. Hj. Mardia Hi. Rahman, S.Pd., M.Pd**, Supervisor II.

The aim of this research is to produce a product in the form of teaching materials based on problem based learning on learning the physics of vibration and wave materials that is valid and practical, to determine the feasibility of teaching material products based on problem based learning according to experts, on learning the physics of vibrations and waves. And find out the teacher's response to teaching materials based on problem based learning on vibrations and waves for class VIII science students at SMP Negeri 5 Ternate City. The method used in this research is ADDIE development, namely: analysis, design, development, implementation and evaluation. The product trial consisted of validation by material experts, media experts, language experts and 2 physics teachers at SMP Negeri 5 Ternate City. Data collection used interview guides, expert validation sheets and teacher response sheets. This research produced a product in the form of teaching materials based on problem based learning on vibration and wave material in the form of a printed book. eets the eligibility criteria as a good learning resource. This is in accordance with the assessment of three experts, namely material, media, language experts and two physics teachers. The average presentation for material experts in the appropriateness aspect of content is 82% included in the very appropriate category, the validity aspect is 83% in the very appropriate category, the presentation aspect is 85% in the very appropriate category, the graphic aspect is 81% in the very appropriate category and the teaching material aspect applies the problem model based learning 82% very feasible category. The average presentation for media experts in the size aspect of teaching materials was 83% in the very feasible category, in the cover design aspect of teaching materials 83% in the very feasible category, and in the content design aspect of teaching materials 66% in the appropriate category. The average presentation for language experts on aspects of competency components in teaching materials is 83% in the very appropriate category, aspects of conformity with correct Indonesian language rules 85% in the very appropriate category, aspects of communicative use of language 80% in the appropriate category, aspects of participants' motivational abilities students to respond to learning 81% very feasible category, the aspect of cultivating curiosity is 80% in the feasible category, the aspect of developing and presenting product results is 82% in the very feasible category and the evaluation aspect is in the very feasible category 84%. Assessments from two physics teachers. Average presentation on criteria of suitability with KD 95% very good category, material updates 100% very good category and 45% quality of teaching materials in the poor category needs to be revised. Thus, teaching materials based on problem based learning on vibration and wave material are suitable for use.

Keywords: Teaching Materials, Problem Based Learning, Vibrations and Waves