ABSTRAK

Putri, F. I. 2025. Pengembangan Perangkat Pembelajaran *Citizenship in Science* Berbasis Kemampuan Berpikir Kritis pada Materi Gerak Lurus Beraturan (GLB) dan Gerak Lurus Berubah Beraturan (GLBB). Tesis. Program Magister Pendidikan IPA Universitas Jambi, Pembimbing I. Dr. Sri Purwaningsih, S.Si., M.Si. II. Prof. Dr. rer. nat. Drs. Asrial, M.Si.

Penelitian ini dilatarbelakangi oleh pentingnya pengembangan perangkat pembelajaran yang mampu membekali siswa dengan kemampuan berpikir kritis sekaligus menumbuhkan kesadaran sebagai warga negara ilmiah (*Citizenship in Science*), khususnya dalam pembelajaran IPA pada materi Gerak Lurus Beraturan (GLB) dan Gerak Lurus Berubah Beraturan (GLBB). Permasalahan umum yang sering terjadi adalah rendahnya keterlibatan siswa dalam mengaitkan konsep gerak dengan fenomena sosial dan lingkungan sekitar serta kurangnya kemampuan berpikir kritis dalam memecahkan masalah kontekstual. Oleh karena itu, diperlukan perangkat pembelajaran yang dirancang secara sistematis untuk mendorong siswa berpikir kritis dan bertindak sebagai warga yang bertanggung jawab terhadap isu-isu sains di masyarakat. Tujuan dari penelitian ini adalah untuk mengetahui proses pengembangan perangkat pembelajaran *Citizenship in Science* berbasis kemampuan berpikir kritis, mengetahui kelayakan isi dan media perangkat yang dikembangkan melalui validasi ahli, serta mengetahui persepsi guru terhadap perangkat secara prosedural. Penelitian ini menggunakan metode *Research and Development* (R&D) dengan model pengembangan ADDIE (*Analysis, Design, Development, Implementation, and Evaluation*). Proses pengembangan dimulai dengan analisis kebutuhan guru, dilanjutkan dengan perancangan perangkat pembelajaran seperti modul ajar, LKPD, slide PowerPoint dan soal HOTS. Validasi oleh ahli materi dan media menunjukkan bahwa perangkat ini sangat layak digunakan dengan penilaian kategori “Sangat Baik”. Uji coba terbatas yang melibatkan guru di SMP menunjukkan respon positif terhadap kebermaknaan pembelajaran serta mampu mengasah kemampuan berpikir kritis siswa. Hasil ini menunjukkan bahwa perangkat pembelajaran *Citizenship in Science* berbasis kemampuan berpikir kritis layak digunakan untuk meningkatkan kualitas pembelajaran IPA, khususnya pada materi gerak lurus.

Kata Kunci : *Citizenship in science*, kemampuan berpikir kritis, perangkat pembelajaran.

ABSTRACT

Putri, F. I. 2025. Development of Citizenship in Science Learning Tools Based on Critical Thinking Ability in Material on Regular Straight Motion and Uniformly Changing Straight Motion. Thesis. Master of Science Education Program Jambi University, Supervisor I. Dr. Sri Purwaningsih, S.Si., M.Sc. II. Prof. Dr. rer. Nat. Drs. Asrial, M.Sc.

This research is motivated by the importance of developing learning tools that are able to equip students with critical thinking skills while raising awareness as scientific citizens (Citizenship in Science), especially in science learning on the material of Regular Straight Motion and Regular Changed Straight Motion. Common problems that often occur are students' low involvement in linking movement concepts with social phenomena and the surrounding environment as well as a lack of critical thinking skills in solving contextual problems. Therefore, learning tools are needed that are systematically designed to encourage students to think critically and act as responsible citizens regarding science issues in society. The aim of this research is to determine the process of developing Citizenship in Science learning tools based on critical thinking skills, determine the suitability of the content and media of the tools developed through expert validation, and find out teachers' perceptions of the tools procedurally. This research uses the Research and Development (R&D) method with the ADDIE (Analysis, Design, Development, Implementation, and Evaluation) development model. The development process begins with an analysis of teacher needs, followed by designing learning tools such as teaching modules, student worksheets, learning media in the form of PowerPoint slides and critical thinking skills questions. Validation by material and media experts shows that this device is very suitable for use with an assessment in the "Very Good" category. Limited trials involving teachers in junior high schools showed a positive response to the meaningfulness of learning and increased students' critical thinking abilities. These results indicate that the Citizenship in Science learning tool based on critical thinking skills is suitable for use to improve the quality of science learning, especially in rectilinear motion material.

Keywords: Citizenship in science, critical thinking, learning tools.