

ABSTRAK

Fitriani, Putri. 2026. *Integrasi Konteks Mangrove dalam Panduan Praktikum Pembuatan Sabun Antibakteri untuk Meningkatkan Literasi Kimia Siswa*. Skripsi. Tanjungpinang: Program Studi Pendidikan Kimia, Jurusan Pendidikan Matematika dan Ilmu Pengetahuan Alam, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Maritim Raja Ali Haji. Pembimbing I: Inelda Yulita, S.Pd., M.Pd. Pembimbing II: Rita Fitriani, S.Pd., M.Pd.

Kata Kunci: Panduan Praktikum, Konteks Mangrove, Sabun Antibakteri, Literasi Kimia, ADDIE.

Penelitian ini dilatarbelakangi oleh rendahnya literasi kimia siswa serta belum tersedianya panduan praktikum yang mengintegrasikan potensi lokal dalam pembelajaran kimia. Pembelajaran materi koloid di sekolah masih bersifat teoritis sehingga siswa mengalami kesulitan menghubungkan konsep kimia dengan fenomena nyata di lingkungan sekitar. Oleh karena itu, penelitian ini bertujuan untuk mengetahui integrasi konteks mangrove dalam pembuatan sabun antibakteri, karakteristik panduan praktikum yang dikembangkan, tingkat kelayakan, tingkat kepraktisan, serta peningkatan literasi kimia siswa. Penelitian ini merupakan penelitian dan pengembangan (*Research and Development*) dengan menggunakan model ADDIE yang meliputi tahap *Analysis, Design, Development, Implementation, dan Evaluation*. Hasil penelitian menunjukkan bahwa konteks mangrove diintegrasikan ke dalam seluruh komponen panduan praktikum melalui pemanfaatan daun mangrove *Rhizophora* sp. sebagai bahan pembuatan sabun antibakteri yang dikaitkan dengan konsep koloid. Karakteristik panduan praktikum disusun secara digital, sistematis, berbasis konstruktivisme, serta mengintegrasikan empat aspek literasi kimia. Tingkat kelayakan panduan praktikum memperoleh persentase sebesar 86,67% dari ahli materi, 87,50% dari ahli bahan ajar, dan 100% dari ahli soal dengan kategori sangat valid. Selanjutnya, hasil uji praktikalitas memperoleh persentase sebesar 95% berdasarkan penilaian guru dan 88,53% berdasarkan penilaian siswa dengan kategori sangat praktis. Implementasi panduan praktikum juga menunjukkan peningkatan literasi kimia siswa ditunjukkan oleh kenaikan rata-rata nilai dari 73,24 pada pretest menjadi 83,53 pada posttest dengan nilai N-Gain sebesar 0,38 yang termasuk kategori sedang. Berdasarkan hasil penelitian, panduan praktikum berbasis konteks mangrove dalam pembuatan sabun antibakteri dinyatakan sangat valid, sangat praktis, dan mampu dalam meningkatkan literasi kimia siswa pada materi koloid.

ABSTRACT

Fitriani, Putri. 2026. *Integration of the Mangrove Context into an Antibacterial Soap Making Practicum Guide to Improve Students' Chemical Literacy*. Thesis. Tanjungpinang: Chemistry Education Study Program, Department of Mathematics and Natural Sciences Education, Faculty of Teacher Training and Education, Raja Ali Haji Maritime University. Advisor I: Inelda Yulita, S.Pd., M.Pd. Co-Advisor: Rita Fitriani, S.Pd., M.Pd.

Keywords: Practicum Guide, Mangrove Context, Antibacterial Soap, Chemical Literacy, ADDIE.

This study was motivated by students' low level of chemical literacy and the lack of practicum guides integrating local potential into chemistry learning. Colloid learning in schools remains predominantly theoretical, making it difficult for students to relate chemical concepts to real-life phenomena in their surrounding environment. Therefore, this study aimed to investigate the integration of the mangrove context into antibacterial soap making, the characteristics of the developed practicum guide, its validity, practicality, and its effectiveness in improving students' chemical literacy. This research employed the Research and Development (R&D) method using the ADDIE model, which consists of five stages: Analysis, Design, Development, Implementation, and Evaluation. The results showed that the mangrove context was integrated into all components of the practicum guide through the utilization of *Rhizophora* sp. leaves as the primary ingredient for antibacterial soap making, which was linked to colloid concepts. The practicum guide was developed as a digital flipbook, systematically designed based on constructivist principles, and integrated the four aspects of chemical literacy. The validity assessment indicated that the guide achieved validity percentages of 86.67% from the material expert, 87.50% from the instructional material expert, and 100% from the assessment expert, all categorized as highly valid. Furthermore, the practicality test yielded scores of 95% from the teacher and 88.53% from the students, both categorized as highly practical. The implementation of the practicum guide also improved students' chemical literacy, as indicated by the increase in the mean score from 73.24 on the pretest to 83.53 on the posttest, with an N-Gain score of 0.38, which falls into the moderate category. Based on these findings, the mangrove context-based practicum guide for antibacterial soap making was found to be highly valid, highly practical, and capable of improving students' chemical literacy in colloid learning.