ABSTRAK

Prigita Elvara Angela Grenda Putri, 2026. Pengembangan Modul Ajar Ukuran Pemusatan Data dengan Konteks Mikroplastik untuk Memfasilitasi Kemampuan Berpikir Kritis dan Kesadaran Ekologis. Skripsi Sarjana. Program Studi Pendidikan Matematika, Jurusan Pendidikan Matematika dan Ilmu Pengetahuan Alam Fakultas Keguruan dan Ilmu Pengetahuan, Universitas Sanata Dharma.

Pembelajaran yang menggunakan konteks kehidupan sehari-hari dapat membantu siswa memahami materi secara lebih bermakna. Salah satu konteks yang dapat digunakan dalam pembelajaran statistika adalah isu mikroplastik yang dekat dengan permasalahan lingkungan. Penelitian ini bertujuan untuk: (1) mengembangkan modul ajar ukuran pemusatan data dengan konteks mikroplastik, (2) mendeskripsikan kemampuan berpikir kritis siswa, dan (3) mendeskripsikan kesadaran ekologis siswa setelah menggunakan modul ajar yang dikembangkan.

Penelitian ini merupakan penelitian *Research and Development* (R&D) dengan model pengembangan ADDIE yang meliputi tahap *Analyze, Design, Development, Implementation,* dan *Evaluation*. Subjek penelitian adalah siswa kelas VIII Democracy SMP Joannes Bosco Yogyakarta tahun ajaran 2025/2026. Data dikumpulkan melalui observasi, wawancara, tes, dan kuesioner, kemudian dianalisis secara kuantitatif dan kualitatif.

Hasil penelitian menunjukkan bahwa: (1) modul ajar berhasil dikembangkan sesuai tahapan ADDIE dengan hasil validasi media sebesar 79,2% (layak) dan validasi materi sebesar 91,7% (sangat layak), serta tergolong praktis digunakan meskipun keefektifannya belum optimal (29%); (2) kemampuan berpikir kritis siswa berada pada kategori berada pada kategori kurang dengan persentase sebesar 29%, terutama pada aspek inferensi dalam menarik kesimpulan logis berdasarkan data; dan (3) kesadaran ekologis siswa berada pada kategori tinggi dengan persentase rata-rata sebesar 85,4% pada indikator kognitif, afektif, dan konatif.

Kata kunci: modul ajar, mikroplastik, kemampuan berpikir kritis, kesadaran ekologis

ABSTRACT

Prigita Elvara Angela Grenda Putri, 2026. *Development of a Teaching Module on Measurement of Central Tendency to Facilitate Critical Thinking Skills and Ecological Awareness. Bachelor Thesis. Mathematics Education Study Program, Department of Mathematics and Natural Sciences Education, Faculty of Teacher Training and Education, Sanata Dharma University.*

Learning that incorporates everyday life contexts can help students understand learning materials more meaningfully. One context that can be used in statistics learning is the issue of microplastics, which is closely related to environmental problems. This study aims to: (1) develop a teaching module on measures of central tendency using a microplastic context, (2) describe students' critical thinking skills, and (3) describe students' ecological awareness after using the developed teaching module.

This study employed a Research and Development (R&D) approach using the ADDIE development model, which consists of the stages of Analyze, Design, Development, Implementation, and Evaluation. The research subjects were Grade VIII Democracy students at Joannes Bosco Junior High School, Yogyakarta, in the 2025/2026 academic year. Data were collected through observations, interviews, tests, and questionnaires, and were analyzed using quantitative and qualitative methods.

The results showed that: (1) the teaching module was successfully developed following the ADDIE stages, obtaining a media validation score of 79.2% (feasible) and a material validation score of 91.7% (highly feasible), and was considered practical for classroom use although its effectiveness was not yet optimal (29%); (2) students' critical thinking skills were in the low category, with a percentage of 29%, particularly in the inference aspect of drawing logical conclusions based on data; and (3) students' ecological awareness was in the high category, with an average percentage of 85.4% across the cognitive, affective, and conative indicators.

***Keywords**: teaching module, microplastics, critical thinking skill ecological awareness*