

ABSTRAK

Pembelajaran STEAM pada anak usia dini memerlukan pengalaman belajar yang konkret untuk mengembangkan kemampuan berpikir kritis, kreativitas, komunikasi, kolaborasi, dan pemecahan masalah. Namun, implementasi metode eksperimen dalam pembelajaran STEAM berbasis laboratorium edukasi, khususnya pada aspek perencanaan, pelaksanaan, dan evaluasi, masih belum banyak dikaji. Penelitian ini bertujuan mendeskripsikan implementasi metode eksperimen dalam pembelajaran STEAM berbasis laboratorium edukasi anak usia dini di TK Anugerah Kamal. Penelitian menggunakan pendekatan kualitatif dengan jenis studi kasus. Informan penelitian adalah wali kelas Kelompok B. Data dikumpulkan melalui observasi, wawancara, dan dokumentasi, kemudian dianalisis menggunakan model Miles dan Huberman yang meliputi reduksi data, penyajian data, serta penarikan kesimpulan. Keabsahan data diuji melalui triangulasi teknik. Hasil penelitian menunjukkan bahwa implementasi metode eksperimen dilakukan melalui tiga tahap, yaitu perencanaan, pelaksanaan, dan evaluasi. Kegiatan eksperimen meliputi pembuatan sabun dari daun pandan, pengharum ruangan dari kopi, dan telur dalam cuka yang mengintegrasikan unsur Science, Technology, Engineering, Art, dan Mathematics (STEAM). Evaluasi dilakukan melalui observasi, refleksi, dokumentasi, dan penilaian autentik. Implementasi metode eksperimen menghasilkan pembelajaran yang aktif, bermakna, dan berpusat pada anak. Penelitian selanjutnya disarankan mengkaji penerapan metode eksperimen STEAM pada berbagai jenjang dan konteks pembelajaran.

Kata kunci: implementasi, metode eksperimen, STEAM, laboratorium edukasi, anak usia dini.

ABSTRACT

STEAM learning in early childhood requires concrete learning experiences to develop children's critical thinking, creativity, communication, collaboration, and problem-solving skills. However, the implementation of the experimental method in STEAM learning based on an educational laboratory, particularly in terms of planning, implementation, and evaluation, has received limited attention. This study aimed to describe the implementation of the experimental method in STEAM learning based on an educational laboratory at TK Anugerah Kamal. This study employed a qualitative approach with a case study design. The research informant was the teacher of Group B. Data were collected through observation, interviews, and documentation, and analyzed using the Miles and Huberman model, including data reduction, data display, and conclusion drawing. Data validity was ensured through technique triangulation. The findings revealed that the implementation of the experimental method consisted of three stages: planning, implementation, and evaluation. The experimental activities included making soap from pandan leaves, producing a coffee-based air freshener, and conducting an egg-in-vinegar experiment, all of which integrated the elements of Science, Technology, Engineering, Art, and Mathematics (STEAM). Evaluation was conducted through observation, reflection, documentation, and authentic assessment. The implementation of the experimental method created active, meaningful, and child-centered learning. Future studies are recommended to examine the implementation of the STEAM experimental method across different educational levels and learning contexts.

Keywords: *implementation, experimental method, STEAM, educational laboratory, early childhood.*