ABSTRAK

PUTRI INDAH SARI SIDAURUK. Perbedaan Kemampuan Pemecahan Masalah Anak Usia 5-6 Tahun Melalui Pembelajaran STEAM Berbasis Projek Kincir Angin Di Tk Gudiseju T.A. 2025/2026. Skripsi. Medan: Fakultas Ilmu Pendidikan. Universitas Negeri Medan. 2026

Kemampuan pemecahan masalah merupakan salah satu aspek penting yang perlu dikembangkan sejak usia dini karena membantu anak dalam mengamati, mencari informasi, menentukan alternatif solusi, dan mengambil keputusan sederhana dalam kehidupan sehari-hari. Berdasarkan pengamatan awal di TK Gudiseju, kemampuan pemecahan masalah anak belum berkembang secara optimal. Salah satu pendekatan yang dapat digunakan untuk menstimulasi kemampuan tersebut adalah pembelajaran STEAM berbasis proyek. Penelitian ini bertujuan untuk mengetahui perbedaan kemampuan pemecahan masalah anak usia 5–6 tahun sebelum dan sesudah mengikuti pembelajaran STEAM berbasis proyek kincir angin di TK Gudiseju Tahun Ajaran 2025/2026.Penelitian ini menggunakan pendekatan kuantitatif dengan metode pre-experimental design melalui rancangan one-group pretest-posttest design. Subjek penelitian berjumlah 13 anak kelompok B yang ditentukan dengan teknik sampling jenuh. Data dikumpulkan melalui observasi menggunakan lembar observasi kemampuan pemecahan masalah anak. Analisis data dilakukan menggunakan uji Wilcoxon Signed Rank Test.Hasil penelitian menunjukkan bahwa nilai rata-rata kemampuan pemecahan masalah anak pada pretest sebesar 14,08 dengan kategori kurang, sedangkan nilai rata-rata posttest sebesar 30,31 dengan kategori sangat baik. Hasil uji Wilcoxon Signed Rank Test menunjukkan nilai signifikansi (Asymp. Sig. 2-tailed) sebesar 0,001 < 0,05, sehingga terdapat perbedaan yang signifikan antara kemampuan pemecahan masalah anak sebelum dan sesudah mengikuti pembelajaran STEAM berbasis proyek kincir angin. Dengan demikian, pembelajaran STEAM berbasis proyek kincir angin dapat digunakan untuk mendukung perkembangan kemampuan pemecahan masalah anak usia 5–6 tahun.

Kata Kunci : STEAM, Proyek Kincir Angin, Kemampuan Pemecahan Masalah, Anak Usia Dini.

ABSTRACT

PUTRI INDAH SARI SIDAURUK. Differences in the Problem-Solving Abilities of Children Aged 5–6 Years Through STEAM Project-Based Learning Using Windmill Projects at TK Gudiseju T.A. 2025/2026. Skripsi. Medan: Faculty of Education. State University of Medan. 2026

Problem-solving ability is an important skill that needs to be developed from an early age because it helps children observe, gather information, determine alternative solutions, and make simple decisions in daily life. Based on initial observations at TK Gudiseju, children's problem-solving ability had not developed optimally. One approach that can be used to stimulate this ability is STEAM-based project learning. This study aimed to determine the differences in the problem-solving ability of children aged 5–6 years before and after participating in STEAM-based windmill project learning at TK Gudiseju in the 2025/2026 Academic Year. This study employed a quantitative approach using a pre-experimental method with a one-group pretest-posttest design. The research subjects consisted of 13 children in Group B selected through a saturated sampling technique. Data were collected through observation using a problem-solving ability observation sheet. Data analysis was conducted using the Wilcoxon Signed Rank Test.The results showed that the average pretest score of children's problem- solving ability was 14.08, which was categorized as low, while the average posttest score was 30.31, which was categorized as very good. The Wilcoxon Signed Rank Test revealed a significance value (Asymp. Sig. 2-tailed) of 0.001 < 0.05, indicating a significant difference in children's problem-solving ability before and after participating in STEAM-based windmill project learning. Therefore, STEAM-based windmill project learning can be used to support the development of problem-solving ability in children aged 5–6 years.

Keywords : Steam, Windmill Project, Problem-Solving Ability, Early Childhood