

## **ABSTRAK**

### **PROGRAM PEMBELAJARAN BERBASIS PROYEK PEMANFAATAN LIMBAH TANAMAN PISANG UNTUK MENINGKATKAN KREATIVITAS ILMIAH SISWA**

**Oleh**

**NASIRUDDIN**

Penelitian ini bertujuan untuk meningkatkan kreativitas ilmiah siswa melalui program pembelajaran berbasis proyek (PjBL) pemanfaatan limbah tanaman pisang agar siswa memiliki pengetahuan yang luas, peka terhadap lingkungan serta tercapainya mutu lulusan yang unggul. Metode yang digunakan dalam penelitian ini menggunakan metode campuran (*mixed methods*) dengan desain *embedded experimental model* menurut Cresswell. Sumber data dalam penelitian berasal dari studi pendahuluan dan uji coba terbatas. Pada tahap studi pendahuluan, yang menjadi sumber data adalah guru IPA di 5 SMP Swasta, 5 SMP Negeri di Kota Metro, dan 32 siswa dari 5 SMP Negeri dan 5 SMP Swasta di Kota Metro. Sumber data pada tahap uji coba terbatas ini terdiri dari guru mata pelajaran IPA dan 29 siswa kelas IX A SMP IT Bina Insani Metro. Data yang diperoleh dianalisis secara kuantitatif meliputi tahapan uji validitas, reliabilitas dan uji hipotesis dilanjutkan dengan teknik analisis data kualitatif untuk memberikan pemaknaan mendalam mengenai penelitian ini meliputi pengumpulan data, reduksi data, penyajian data dan penarikan kesimpulan. Keefektifan program pembelajaran juga didukung dengan kepraktisan program pembelajaran selama intervensi yang ditinjau dari penilaian kinerja guru sebesar 89% berkriteria tinggi, penilaian kinerja siswa sebesar 82% berkriteria tinggi, dan penilaian pembuatan produk sebesar 85,94% berkriteria sangat tinggi. Pada tahap setelah intervensi, didapatkan hasil bahwa program pembelajaran berbasis proyek pemanfaatan limbah tanaman pisang untuk meningkatkan kreativitas ilmiah siswa mendapatkan respon positif dari guru ditinjau dari respon terhadap aspek kesesuaian isi sebesar 86,89% dengan kriteria sangat tinggi dan aspek kesesuaian konstruksi sebesar 91,78% dengan kriteria sangat tinggi, serta respon siswa terhadap pembelajaran berbasis proyek pemanfaatan limbah tanaman pisang sebesar 86% dengan kriteria sangat tinggi. Berdasarkan data-data yang diperoleh pada penelitian ini maka dapat disimpulkan bahwa program pembelajaran berbasis proyek pemanfaatan limbah tanaman pisang dinyatakan valid & efektif dalam meningkatkan kreativitas ilmiah siswa.

Kata Kunci: Kreativitas ilmiah, Limbah tanaman pisang, Pembelajaran berbasis proyek.

## **ABSTRACT**

### **PROJECT-BASED LEARNING PROGRAM IN UTILIZING BANANA PLANT WASTE TO INCREASING STUDENTS' SCIENTIFIC CREATIVITY**

**By**

**NASIRUDDIN**

This research aims to increase students' scientific creativity through a project-based learning program (PjBL) utilizing banana plant waste so that students have extensive knowledge, are sensitive to the environment and achieve superior quality graduates. The method used in this study uses mixed methods with an embedded experimental model design according to Cresswell. Sources of data in this research come from preliminary studies and limited trials. In the preliminary study phase, the sources of data were science teachers at 5 private junior high schools, 5 public junior high schools in Metro City, and 32 students from 5 public junior high schools and 5 private junior high schools in Metro city. The data sources at this limited trial stage consisted of science teachers and 29 class IX A students at SMP IT Bina Insani Metro. The data obtained were analyzed quantitatively including the stages of validity, reliability and hypothesis testing followed by qualitative data analysis techniques to provide an in-depth understanding of this study including data collection, data reduction, data presentation and drawing conclusions. The effectiveness of the learning program is also supported by the practicality of the learning program during the intervention in terms of the teacher's performance assessment of 89% with high criteria, 82% of student performance ratings with high criteria, and an assessment of product creation by 85.94% with very high criteria. At the stage after the intervention, the results obtained were that the project-based learning program for utilizing banana plant waste to increase students' scientific creativity received a positive response from the teacher in terms of the response to the suitability aspect of the content of 86.89% with very high criteria and the construction suitability aspect of 91.78 % with very high criteria, and student responses to project-based learning of the utilization of banana plant waste by 86% with very high criteria. Based on the data obtained in this study, it can be concluded that the project-based learning program for utilizing banana plant waste is declared valid & effective in increasing students' scientific creativity.

**Keywords:** Banana plant waste, Based learning project, Scientific creativity.