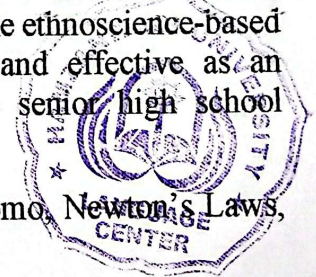


ABSTRACT

M. AZIZURRAHMAN (2025). DEVELOPMENT OF ETHNOSCIENCE-BASED STUDENT WORKSHEETS (LKPD) ON NEWTON'S LAWS TO IMPROVE CONCEPTUAL UNDERSTANDING OF PHYSICS AMONG GRADE X STUDENTS OF MA NWDI PERIAN.

This study aims to develop an ethnoscience-based Student Worksheet (LKPD) on Newton's Laws to improve the conceptual understanding of physics among Grade X students of MA NWDI Perian. The research employed a Research and Development (R&D) method using the ADDIE model, which consists of five stages: analysis, design, development, implementation, and evaluation. Data were collected through expert validation, practicality questionnaires, and concept understanding tests. The feasibility test results showed that the developed LKPD was rated as highly feasible, with an average score of 87% from material and media experts. The practicality aspect obtained an average score of 88% (categorized as highly practical), indicating that the LKPD was easy to use in the learning process. Meanwhile, the effectiveness test revealed an increase in students' average conceptual understanding scores from 55.28 to 83.30, with an N-Gain value of 0.63 (moderate category), indicating that the LKPD was sufficiently effective in improving students' conceptual understanding. The integration of ethnoscience through the Cidomo phenomenon made the learning process more contextual, meaningful, and relevant to students' daily lives. Therefore, the ethnoscience-based Newton's Laws LKPD was declared feasible, practical, and effective as an innovative learning material for physics education at the senior high school (SMA/MA) level.

Keywords: Student Worksheet (LKPD), ethnoscience, Cidomo, Newton's Laws, problem-based learning, conceptual understanding.



2025/10/22 09:17