

# **Hypothetical Lecture Design Based on Teaching for Robust Understanding (TRU) to Develop Students' Mathematical Creativity and Mathematical Resilience in Applied Mathematics Courses**

**by Caturiyati, Agus Maman Abadi, R. Rosnawati**

## **ABSTRACT**

This research aims to develop a learning device prototype to support a hypothetical design model in developing a TRU-based applied mathematics lecture model which is expected to increase students' mathematical creativity and mathematical resilience. This research is development research or Research and Development (R&D) using the ADDIE model development method. The learning model is based on the study of 1) syntax. 2) Reaction principle. 3) Social system. 4) Support system. 5) Instructional impact and accompanying impact

The hypothetical model developed supports the implementation of TRU-based applied mathematics courses (linear programming) to increase students' mathematical creativity and mathematical resilience. The tools developed are a prototype of a linear program textbook, a linear program RPS according to the TRU-based lecture model, a prototype of a student activity sheet with a TRU-based lecture model.

*Kata Kunci: Mathematical creativity, mathematics resilience, TRU*