

ABSTRACT

TRI WIJAYANTI. *Design Research: Mengembangkan Kemampuan Berpikir Aljabar Melalui Pendekatan Pendidikan Matematika Realistik (PMR) pada Pokok Bahasan Persamaan dan Pertidaksamaan Linear Satu Variabel di Kelas VII-C SMP Negeri 7 Jakarta.* Skripsi. Jakarta: Program Studi Pendidikan Matematika, Fakultas Matematika dan Ilmu Pengetahuan Alam, Universitas Negeri Jakarta, 2016.

The purpose of this research is to acknowledge how to improve student's ability in algebraic thinking by using Mathematic Realistic Education (RME) in linear equality and inequality of one variable chapter.

This research had been done in February 2015 until June 2016, started from making proposal until the result of the research. Methodology of this research is design research. There were three phase of this study, that are thought experiment, instruction experiment, and retrospective analysis. The subject of this research is students in VII-C of SMP N 7 Jakarta. This research use data such as video documenter, photo of learning process, interview, student's activity paper, field note and hypothesis learning trajectory. There were two validity in this research, that are internal validity and ecology validity. Meanwhile, the reliability are internal reliability and external reliability.

Student's ability in algebraic thinking developed by activities that had been planned due to algebraic thinking abilities by Kriegle, that are 3 components thinking mathematically and 3 fundamental algebra ideas. Learning process had been done according to hypothesis learning trajectory. The activities that related to Realistic Mathematic Education had increase student's ability in algebraic thinking. Based on retrospective analysis, the Realistic Mathematic Education has an impact in developing student's ability in algebraic thinking for students in VII-C SMP N 7 Jakarta in linear equality and inequality one of variable chapter.

Keywords: Algebraic Thinking Ability, Realistic Mathematic Education, linear equality and inequality of one variable