ABSTRAK

HANA FIRDAUS. Learning Development with Problem Based Learning Model to Improve Student Mathematical Connections on Material Comparison in SMPN 49 Jakarta. Essay. Jakarta: Program Studi Pendidikan Matematika, Jurusan Matematika, Fakultas Matematika dan Ilmu Pengetahuan Alam, Universitas Negeri Jakarta, Juli 2016.

Mathematical connections are important but students who can master the mathematical concept is not in itself good. Students are able to apply mathematical concepts related to real problems, but only a few students were able to explain why the concept is used in the comparison worth. Not only was the concept will be enhanced in comparison worth, but also how students mengoneksikan these concepts in solving problems in comparison subjects worth. This study presents a series of learning activities that allow students to perform mathematical on contextual situations using Problem Based Learning model (PBL). A series of these activities is the path of learning in developing the mathematical connection capability is no comparison worth.

Design research selected as an appropriate means to achieve the goal of learning. Design research aims to develop a theory of how the process of student learning and how to support the learning process. There are three stages in this research, namely the design phase of research, experimental learning, and retrospective analysis. Context used in connection with the events of the everyday life that accumulate plate and the current events of awarah opposite car passed each other.

This research was conducted in SMP Negeri 49 Jakarta, East Jakarta, involving 36 students where six students were selected as research subjects. The results of a retrospective analysis of the experimental data shows that learning a series of learning activities can develop the ability of understanding mathematical connections so that students can mengoneksikan problems in comparison with the worth of daily life, mathematical connections with other mathematical subjects, and mathematical connection with subjects other than mathematics. Context that is used to bridge the informal mathematical knowledge of students to the formal mathematical knowledge. Learning trajectories in this study went so well that it can be used in learning at school.

Keywords: *Problem Based Learning, Comparison, Mathematical connections, and Context*.