

ABSTRACT

Peronika Sihaloho, NIM 4173312006 (2017). Development of Learning Devices Based on Problem-Based Learning in Improving Students' Mathematical Communication Ability

This study aims to improve students' mathematical communication skills through research articles conducted by previous researchers. Due to the large number of similar studies related to the development of learning device based on problem-based learning in improving mathematical communication skills, this study was designed with a four-stage metasynthetic system, namely identification, assessment, interpretation and criticism of 5 journal articles that will be synthesized. The learning device developed by previous researchers through synthesized journal articles are RPP (Learning Implementation Plan), Syllabus, LKPD (Student Worksheet) and learning evaluation sheets. The development of learning device carried out by previous researchers was carried out with several stages of improvement after being checked and assisted by the validator team. Some articles use 2 learning systems, namely the division of small groups and large groups in class and the use of author and indoor learning systems. From the results of the synthesis of journal articles that each learning device developed is suitable for use in the classroom learning system because it meets valid, practical and effective criteria at different levels of value and students' mathematical communication skills studied by previous researchers have increased.

Keywords: Learning Devices Development , Problem-Based Learning, Mathematics Communication Ability, Metasynthesis