METASINTESIS PENGEMBANGAN PERANGKAT PEMBELAJARAN BERDASARKAN MODEL *PROBLEM BASED LEARNING* (PBL) UNTUK MENINGKATKAN KEMAMPUAN KOMUNIKASI MATEMATIS SISWA

Robby Relegian Parlaungan Batubara (41411111043)

ABSTRAK

Penelitian ini bertujuan untuk memaparkan hasil sintesis pengembangan perangkat pembelajaran berdasarkan model *Problem Based Learning* untuk meningkatkan kemampuan komunikasi matematis siswa. Penelitian ini menggunakan metasintesis dalam mensintesis data-data penelitian yang diambil sesuai dengan pokok permasalahan yang diangkat. . Beberapa model pengembangan yang digunakan dalam perangkat pembelajaran pada sumber penelitian ini yaitu model 4D, model ADDIE dan model Gall and Borg. Berdasarkan hasil penelitian terhadap artikel-artikel tentang penelitian pengembangan perangkat pembelajaran berdasarkan model PBL untuk meningkatkan kemampuan komunikasi matematis siswa dengan banyaknya perbedaan dalam mengembangkan perangkat pembelajaran diperoleh bahwa pengembangan perangkat pembelajaran berbasis *Problem Based Learning* dapat meningkatkan kemampuan komunikasi matematis siswa. Peningkatan kemampuan komunikasi matematis siswa yang didapatkan dari hasil pengembangan perangkat pembelajaran berdasarkan model PBL ini sangat bervariatif. Selain itu hasil analisis yang dilakukan terhadap artikel yang disintesis dimana semua perangkat pembelajaran yang dikembangkan sudah memenuhi kriteria valid, praktis didapatkan hasilnya efektif dengan kategori baik dan sangat baik.

Kata Kunci : Pengembangan Perangkat Pembelajaran, *Problem Based Learning* (PBL), Komunikasi Matematis, Metasintesis

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METASYNTHESIS OF DEVELOPMENT OF LEARNING DEVICES BASED ON THE PROBLEM BASED LEARNING (PBL) MODEL TO IMPROVE STUDENTS' MATHEMATICAL COMMUNICATION ABILITY

Robby Relegian Parlaungan Batubara (41411111043)

ABSTRACT

This study aims to describe the results of the synthesis of the development of learning tools based on the Problem Based Learning model to improve students' mathematical communication skills. This study uses metasynthesis in synthesizing research data taken in accordance with the main issues raised. Several development models used in the learning tools in this research resource are the 4D model, the ADDIE model and the Gall and Borg model. Based on the results of research on articles about research on the development of learning tools based on the PBL model to improve students' mathematical communication skills with many differences in developing learning tools, it was found that the development of Problem Based Learning based learning tools could improve students' mathematical communication skills. The increase in students' mathematical communication skills obtained from the results of developing learning tools based on the PBL model is very varied. In addition, the results of the analysis carried out on the synthesized articles where all the learning tools developed have met the valid criteria, practically the results are effective with good and very good categories

Keywords: Development of Learning Devices, Problem Based Learning (PBL), Mathematical Communication, Metasynthesis