**ABSTRACT**

**DEVELOPMENT OF PROBLEM BASED LEARNING (PBL)-BASED LEARNING TOOLS TO IMPROVE THE ACTIVITIES AND MATHEMATICAL PROBLEM SOLVING ABILITY**

**OF STUDENTS OF SOSOPAN STATE**

**MIDDLE SCHOOL 1.**

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*This research was motivated by the low mathematical problem solving abilities of junior high school students. This research aims to produce learning tools based on problem based learning (PBL) that are valid, practical and effective to facilitate learning activities and mathematical problem solving abilities. This research is development research carried out using the Plomp development model. The Plomp development model consists of three stages, namely preliminary investigation, prototyping stage, and assessment phase. The research was conducted at SMPN 1 Sosopan with the research subjects being class VII students at SMPN 1 Sosopan. Data collection instruments include interviews, documentation, questionnaires and test questions. The data obtained was analyzed using qualitative and quantitative data analysis techniques. The results of the research show that the problem based learning (PBL) learning tools developed are classified as very valid (89.77% for RPP and 87.73% for LKPD) and very practical respectively 87% and 86.85% (for RPP and small group LKPD) 88.1% and 88.02% (for large group RPP and LKPD). Meanwhile, based on the results of the mathematical problem solving ability test, it was found that 81.5% of students met the criteria for success in the mathematical problem solving ability test > 80%, meaning that problem based learning (PBL) based learning tools were very effective on mathematical problem solving ability.*

*Keywords: Learning Devices, Problem Based Learning, Learning Activities, Mathematical Problem Solving Ability*.

**ABSTRAK**

**PENGEMBANGAN PERANGKAT PEMBELAJARAN BERBASIS *PROBLEM BASED LEARNING* (PBL) UNTUK MENINGKATKAN AKTIVITAS DAN KEMAMPUAN PEMECAHAN MASALAH MATEMATIKA SISWA SMP NEGERI 1 SOSOPAN**

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Penelitian ini dilatarbelakangi oleh rendahnya kemampuan pemecahan masalah matematis peserta didik SMP*.* Penelitian ini bertujuan untuk menghasilkan Perangkat Pembelajaran berbasis *problem based learning* (PBL)yang valid, praktis, dan efektif untuk memfasilitasi aktivitas belajar dan kemampuan pemecahan masalah matematis. Penelitian ini adalah penelitian pengembangan yang dilaksanakan dengan model pengembangan Plomp. Model pengembangan Plomp terdiri atas tiga tahap, yaitu *preliminary investigation*, *prototyping stage*, dan *assessment phase*. Penelitian dilakukan di SMPN 1 Sosopan dengan subjek penelitian adalah peserta didik kelas VII SMPN 1 Sosopan. Instrumen pengumpulan data berupa wawancara, dokumentasi, angket dan soal tes. Data yang diperoleh dianalisis dengan teknik analisis data kualitatif dan kuantitatif. Hasil penelitian menunjukkan perangkat pembelajaran berbasis *problem based learning* (PBL) yang dikembangkan tergolong dalam kategori sangat valid (89,77 % untuk RPP dan 87,73% untuk LKPD) dan sangat praktis masing-masing 87% dan 86,85% (untuk RPP dan LKPD kelompok kecil) 88,1% dan 88,02% (untuk RPP dan LKPD kelompok besar). Sedangkan berdasarkan hasil uji soal tes kemampuan pemecahan masalah matematis diperoleh 81,5% peserta didik memenuhi kriteria keberhasilan tes kemampuan pemecahan masalah matematis > 80%, artinya perangkat pembelajaran berbasis *problem based learning* (PBL) sangat efektif terhadap kemampuan pemecahan masalah matematis.

**Kata Kunci:** Perangkat Pembelajaran , *Problem Based Learning***,** Aktivitas Belajar, Kemampuan Pemecahan Masalah Matematis.