

## **ABSTRACT**

### **DEVELOPMENT OF INQUIRY LEARNING MODEL LKPD TO IMPROVE STUDENTS' MATHEMATICAL COMMUNICATION ABILITY**

**By:**

**M Khusnudin**

This study aims to determine the process and results of the development of Inquiry Learning model LKPD teaching materials to improve students' mathematical communication skills, as well as test the validity, practicality, and effectiveness of the developed LKPD. This research and development refers to the steps of Borg and Gall. The research subjects were class VII A students of SMP Negeri 2 South Rawajitu, Tulang Bawang Regency, for the 2022/2023 academic year. Data collection techniques used interviews, tests of mathematical communication skills, and questionnaires. Data were analyzed using descriptive qualitative methods and cognitive learning outcomes using the normalized N-gain t test to determine the effectiveness of LKPD. The results showed that the developed LKPD teaching materials were categorized as valid (fit for use) based on the assessment of media and material expert validators. In addition, the LKPD that was developed was also categorized as practical based on student assessments and responses from the mathematics teacher. The final result of the hypothesis test shows that the mathematical communication skills of students who use the Inquiry Learning model LKPD are higher than the mathematical communication skills of students who do not use the Inquiry Learning model LKPD. The conclusion of this study is that guided inquiry-based worksheets are effective for improving students' mathematical communication skills.

**Keywords: Mathematical Communication, Inquiry Learning, LKPD**

## **ABSTRAK**

### **PENGEMBANGAN LKPD MODEL *INQUIRY LEARNING* UNTUK MENINGKATKAN KEMAMPUAN KOMUNIKASI MATEMATIS SISWA**

**Oleh:**

**M Khusnudin**

Penelitian ini bertujuan untuk mengetahui proses dan hasil pengembangan bahan ajar LKPD model *Inquiry Learning* untuk meningkatkan kemampuan komunikasi matematis siswa, serta menguji kevalidan, kepraktisan, dan keefektifan LKPD yang dikembangkan. Penelitian dan pengembangan ini mengacu pada langkah-langkah *Borg dan Gall*. Subjek penelitian adalah siswa kelas VII A SMP Negeri 2 Rawajitu Selatan Kabupaten Tulang Bawang Tahun Pelajaran 2022/2023. Teknik Pengumpulan data menggunakan wawancara, tes kemampuan komunikasi matematis, dan angket. Data dianalisis dengan metode deskriptif kualitatif dan hasil belajar kognitif menggunakan uji t dengan N-gain ternormalisasi untuk mengetahui keefektifan LKPD. Hasil penelitian menunjukkan bahwa bahan ajar LKPD yang dikembangkan terkategori valid (layak digunakan) berdasarkan penilaian validator ahli media dan materi. Selain itu, LKPD yang dikembangkan juga terkategori praktis berdasarkan penilaian siswa dan tanggapan dari guru matematika. Hasil akhir pada uji hipotesis menunjukkan bahwa kemampuan komunikasi matematis siswa yang menggunakan LKPD model *Inquiry Learning* lebih tinggi daripada kemampuan komunikasi matematis siswa yang tidak menggunakan LKPD model *Inquiry Learning*. Simpulan penelitian ini bahwa LKPD berbasis inquiry terbimbing efektif untuk meningkatkan kemampuan komunikasi matematis siswa.

**Kata kunci:** Komunikasi Matematis, *Inquiry Learning*, LKPD