

**Perbandingan Kemampuan Penalaran dan Komunikasi Matematis Siswa SD
melalui Pembelajaran Kooperatif Tipe STAD dan *Direct Instruction*
(Penelitian Kuasi Eksperimen Kelas V SD di Kecamatan Sumedang)**

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ABSTRAK

Penelitian ini dilatarbelakangi rendahnya kemampuan penalaran matematis pada tingkat sekolah dasar. Selain itu, kemampuan komunikasi siswa dalam mengemukakan ide atau gagasan matematis perlu digali, sehingga guru dapat mengetahui sejauh mana pemahaman siswa mengenai konsep yang telah diajarkan. Penelitian ini bertujuan untuk mengetahui perbedaan peningkatan kemampuan penalaran dan komunikasi matematis antara siswa yang memperoleh pembelajaran kooperatif tipe STAD dan siswa yang memperoleh pembelajaran *Direct Instruction*, serta mengetahui besar pengaruh pembelajaran kooperatif tipe STAD dan *Direct Instruction* terhadap peningkatan kemampuan penalaran dan komunikasi matematis siswa. Penelitian ini merupakan penelitian kuasi eksperimen, dengan desain yang digunakan adalah *the pretest-posttest two treatment design*. Populasi penelitian ini adalah seluruh siswa kelas V sekolah dasar yang berada di Kecamatan Cimalaka, dan sampelnya adalah siswa kelas V SDN Citimun II dan Mulyasari. Instrumen yang digunakan dalam penelitian ini adalah tes kemampuan penalaran dan komunikasi matematis. Hasil penelitian ini menunjukkan bahwa terdapat perbedaan peningkatan kemampuan penalaran dan komunikasi matematis yang signifikan antara siswa yang mengikuti pembelajaran kooperatif tipe STAD dan siswa yang mengikuti pembelajaran *Direct Instruction*, serta pengaruh pembelajaran kooperatif tipe STAD dan *Direct Instruction* terhadap peningkatan kemampuan penalaran dan komunikasi matematis siswa sebesar 76% atau dalam kategori sedang.

Kata kunci: penalaran matematis, komunikasi matematis, kooperatif Tipe STAD, *Direct Instruction*

**The Comparison of Mathematical Reasoning and Communication Skills Among Elementary School Students through Cooperative Learning of STAD Type and Direct Instruction
(Quasi-Experimental Research in the 5th Grade of Elementary School in Cimalaka)**

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ABSTRACT

As the background of this study was the low mathematical reasoning skills among elementary school students. Besides, students' communication skill in putting forward their mathematical idea needed to be searched, so that teacher could find out students' comprehension related to the concept taught. The objective of this study was to find out the difference in increasing of mathematical reasoning and communication skills between students who were taught by using STAD cooperative learning and those who were taught by using Direct Instruction and to find out how great the effect of STAD cooperative learning and Direct Instruction on students' mathematical reasoning and communication skills. The research method was quasi-experimental with pretest- posttest two treatment design. The population of this study was all of the fifth grade of elementary school in the district of Cimalaka, and the sample were the fifth grade of students at SDN Citimun II and SDN Mulyasari. The instruments used in this study were mathematical reasoning communication skill test. The research result showed the significant difference in the increasing of mathematical reasoning and communication skills between students who got STAD cooperative learning from those who got Direct Instruction, and the effect of STAD cooperative learning and direct instruction on the increasing of students' mathematical reasoning and communication skills was 76% which is categorized as middle.

Keywords: Mathematical reasoning, mathematical communication, cooperative learning of STAD type, Direct Instruction