

**PENGARUH MODEL CONTEXTUAL TEACHING
AND LEARNING BERBANTUAN APLIKASI
AUGMENTED REALITY TERHADAP
HASIL BELAJAR MATERI BANGUN RUANG
PADA SISWA KELAS V SD**

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh model *Contextual Teaching and Learning (CTL)* berbantuan aplikasi *Augmented Reality* terhadap hasil belajar Matematika materi bangun ruang pada siswa kelas V SD Gugus VII Abiansemal Tahun Ajaran 2025/2026. Penelitian ini menggunakan pendekatan kuantitatif dengan jenis penelitian eksperimen semu (*quasi experiment*) menggunakan rancangan *Nonequivalent Post-Test Only Control Group Design*. Populasi penelitian adalah seluruh siswa kelas V SD Gugus VII Abiansemal yang terdiri atas 8 kelas dari 8 sekolah dasar dengan jumlah 189 peserta didik. Analisis kesetaraan kemampuan awal peserta didik dilakukan menggunakan Analisis Varians Satu Arah (*ANOVA* satu jalur). Penentuan sampel dilakukan menggunakan teknik *random sampling*. Berdasarkan hasil pengundian, diperoleh kelas V SD No. 2 Jagapati sebagai kelompok eksperimen dengan jumlah 27 peserta didik dan kelas V SD No. 1 Jagapati sebagai kelompok kontrol dengan jumlah 28 peserta didik. Kelompok eksperimen diberikan perlakuan berupa penerapan model *Contextual Teaching and Learning (CTL)* berbantuan aplikasi *Augmented Reality*, sedangkan kelompok kontrol mengikuti pembelajaran konvensional yang biasa digunakan oleh guru. Pengumpulan data dilakukan menggunakan metode tes dengan instrumen berupa tes objektif pilihan ganda untuk mengukur hasil belajar Matematika siswa pada materi bangun ruang. Data yang diperoleh dianalisis menggunakan statistik deskriptif dan statistik inferensial. Berdasarkan uji prasyarat, data berdistribusi normal dan homogen, sehingga pengujian hipotesis dilakukan menggunakan uji-*t pooled varians*. Hasil analisis menunjukkan bahwa nilai t_{hitung} sebesar 14,25 lebih besar daripada t_{tabel} sebesar 1,674 pada taraf signifikansi 5% dengan derajat kebebasan 70, sehingga H_0 ditolak dan H_1 diterima. Dengan demikian, dapat disimpulkan bahwa penerapan model *Contextual Teaching and Learning (CTL)* berbantuan aplikasi *Augmented Reality* berpengaruh signifikan terhadap hasil belajar Matematika materi bangun ruang pada siswa kelas V SD Gugus VII Abiansemal Tahun Ajaran 2025/2026.

Kata kunci: *Contextual Teaching and Learning (CTL)*, *Augmented Reality*, hasil belajar Matematika bangun ruang.

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*This study aimed to determine the effect of the Contextual Teaching and Learning (CTL) model assisted by an Augmented Reality application on mathematics learning outcomes in solid geometry material among fifth-grade students in Elementary Schools Cluster VII Abiansema during the 2025/2026 academic year. This research employed a quantitative approach with a quasi-experimental design using the Nonequivalent Post-Test Only Control Group Design. The population consisted of all fifth-grade students in Cluster VII Abiansema, comprising 8 classes from 8 elementary schools, with a total of 189 students. The equivalence of students' initial abilities was tested using One-Way Analysis of Variance (ANOVA). The sample was selected through random sampling. Based on the lottery results, fifth-grade students of SD No. 2 Jagapati were assigned as the experimental group (27 students), while students of SD No. 1 Jagapati served as the control group (28 students). The experimental group received instruction through the implementation of the Contextual Teaching and Learning (CTL) model assisted by an Augmented Reality application, whereas the control group was taught using conventional learning methods commonly applied by teachers. Data were collected through an objective multiple-choice test designed to measure students' mathematics learning outcomes on solid geometry material. The data were analyzed using descriptive and inferential statistics. The prerequisite tests indicated that the data were normally distributed and homogeneous; therefore, hypothesis testing was conducted using the pooled variance *t*-test. The analysis revealed that the calculated *t*-value (14.25) was greater than the *t*-table value (1.674) at a 5% significance level with 70 degrees of freedom. Therefore, H_0 was rejected and H_1 was accepted. It can be concluded that the implementation of the Contextual Teaching and Learning (CTL) model assisted by an Augmented Reality application had a significant positive effect on students' mathematics learning outcomes in solid geometry material.*

Keywords: Contextual Teaching and Learning (CTL), Augmented Reality, mathematics learning outcomes solid geometry.