

ABSTRAK

Chumairoh, R. F. 2024. *Keefektifan Model Pembelajaran Group investigation terhadap Penalaran Matematis Siswa*. Skripsi. Program Studi Pendidikan Matematika Universitas PGRI Delta Sidoarjo. Dosen Pembimbing: 1) Siti Nuriyatin, S.Pd., M.Pd. 2) Dr. Lailatul Mubarakah, S.Pd., M.Pd.

Kata kunci: *Group investigation, Penalaran Matematis, Barisan dan Deret Aritmetika*

Penelitian ini bertujuan untuk mengkaji keefektifan model pembelajaran kooperatif tipe *group investigation* (GI) terhadap kemampuan penalaran matematis siswa SMA. Latar belakang penelitian ini adalah rendahnya kemampuan penalaran matematis siswa Indonesia, seperti yang ditunjukkan oleh hasil PISA dan TIMSS. Model GI dipilih karena melibatkan kerja kelompok, meningkatkan keterlibatan siswa, serta mendukung pengembangan penalaran kritis. Jenis penelitian ini adalah eksperimen kuantitatif dengan desain pre-experimental, hanya menggunakan satu kelas tanpa kelas kontrol. Subjek penelitian adalah siswa kelas X-2 SMA Dharma Wanita 1 Gedangan. Teknik pengumpulan data dilakukan melalui tes dan observasi. Tes digunakan untuk mengukur kemampuan penalaran matematis, sementara observasi mengukur kemampuan guru mengelola pembelajaran dan aktivitas belajar siswa selama proses pembelajaran. Hasil penelitian menunjukkan bahwa penerapan model GI efektif dalam melatih siswa untuk berpikir logis dan sistematis dalam menyelesaikan masalah yang terkait dengan materi barisan dan deret aritmetika. Selain itu, observasi terhadap Kemampuan Guru dalam Mengelola Pembelajaran dan siswa menunjukkan bahwa guru mampu mengelola pembelajaran dengan sangat baik, serta siswa terlibat aktif selama proses pembelajaran menggunakan model pembelajaran *group investigation*.

ABSTRACT

Chumairoh, R. F. 2024. *The Effectiveness of the Group investigation Learning Model on Students Mathematical Reasoning*. Thesis. Mathematics Education Program, PGRI Delta University, Sidoarjo. Advisors: 1) Siti Nuriyatin, S.Pd., M.Pd. 2) Dr. Lailatul Mubarakah, S.Pd., M.Pd.

Keywords: *Group investigation, Mathematical Reasoning, Arithmetic Sequences and Series.*

This study aims to examine the effectiveness of the *group investigation* (GI) cooperative learning model on high school students' mathematical reasoning abilities. The background of this research is the low mathematical reasoning abilities of Indonesian students, as shown by the results of PISA and TIMSS. The GI model was chosen because it involves group work, enhances student engagement, and supports the development of critical reasoning. This research is a quantitative experiment with a pre-experimental design, using only one class without a control class. The subjects of the research were students of class X-2 at Dharma Wanita 1 Gedangan High School. Data collection techniques were carried out through tests and observations. The test was used to measure mathematical reasoning abilities, while observation assessed the teacher's ability to manage the learning process and student activities during the learning process. The results of the study show that the application of the GI model is effective in training students to think logically and systematically in solving problems related to arithmetic sequences and series. In addition, observations of teacher and student activities indicate that the teacher was able to manage the learning process very well, and the students were actively engaged during the learning process using the *group investigation* learning model.