ABSTRAK

Penelitian ini bertujuan untuk (1) mendeskripsikan implementasi tahapan model kooperatif *TAI* pada siswa kelas X jurusan Teknik Geologi Pertambangan SMK Negeri 2 Depok pada materi barisan dan deret aritmetika, dan (2) mendeskripsikan kemampuan pemecahan masalah matematis siswa kelas X SMK Negeri 2 Depok setelah mengikuti pembelajaran dengan model kooperatif *TAI*.

Penelitian ini menggunakan pendekatan deskriptif kualitatif. Subjek penelitian adalah siswa kelas X jurusan Teknik Geologi Pertambangan A tahun ajaran 2024/2025. Teknik pengumpulan data menggunakan catatan lapangan, dokumentasi, tes, dan wawancara, serta divalidasi dengan triangulasi teknik. Analis data dilakukan melalui tahap reduksi data, penyajian data, dan penarikan kesimpulan.

Hasil penelitian menunjukkan: (1) implementasi model pembelajaran kooperatif *TAI* yang terdiri dari tahaan p*lacement tes, teams, student creative, study group, teaching group, fact test, team scores and team recognition, dan whole-class units.* (2) Siswa dalam kategori tinggi mampu mencapai seluruh indikator pemecahan masalah. Siswa dalam kategori sedang, sebagian besar mampu mencapai indikator memahami masalah, melaksanakan rencana, memeriksa proses dan hasil, dan sebagaian besar belum mampu mencapai indikator merencanakan penyelesaian. Siswa dalam kategori rendah seluruhnya mampu mencapai indikator memahami masalah. Namun, seluruh siswa dalam kategori ini belum mampu mencapai indikator merencanakan penyelesaian, melaksanakan rencana, dan memeriksa proses dan hasil.

Kata Kunci: Pemecahan Masalah, *TAI*, Barisan, Deret

ABSTRACT

This study aims to (1) desribe the implementation stages of the TAI cooperative learning model for grade X students of the Geological Mining Engineering program at SMK Negeri 2 Depok, and (2) examine the students' mathematical problem-sloving abilities after participating in TAI-based learning.

This research employed a descriptive qualitative method. The subjects were grade X students form Geological Mining Engineering A class in the 2024/2025 academic year. Data were collected through field notes, documentation, test, and interviews, and validated using technique triangulation. Data were analyzed through data reduction, data display, and conclusion drawing.

The result of the study show that: (1) the implementation of the TAI cooperative learning model includes the stages of placement test, teams, student creative, study group, teaching group, fact test, team scores and team recognition, and whole-class units. (2) Students in the hight category were able to achieve all of problem solving ability. Most students in the medium category were able to achieve the indicators of understanding the problem, carrying out the plan, and evaluating the process and result, but had not yet fully achieved the indicator of planning the solution. Students in the low category were all able to achieve the indicator of understanding the problem. However, all students in this category were unable to achieve the indicators of planning a solution, carrying out the plan, and reviewing the process and result

Keyword: *Problem Solving, TAI, Sequences, Series.*