

## **ABSTRAK**

Penelitian ini bertujuan untuk mengetahui (1) pengaruh kemampuan awal matematika (tinggi, sedang, rendah) terhadap kemampuan komunikasi matematis siswa, (2) Untuk mendeskripsikan pengaruh kemampuan awal matematika (tinggi, sedang, rendah) terhadap diri siswa. -affecacy, (3) Untuk mendeskripsikan pengaruh model pembelajaran berbantuan (STAD dan PBL) terhadap komunikasi matematis siswa, (4) Untuk mendeskripsikan pengaruh model pembelajaran (STAD dan PBL) terhadap self-affectacy matematis siswa, (5) Untuk mendeskripsikan ada tidaknya interaksi antara kemampuan awal matematis (Tinggi, Sedang, Rendah) dan model pembelajaran (STAD dan PBL) terhadap kemampuan komunikasi matematis siswa, (6) Untuk mendeskripsikan ada tidaknya interaksi antara kemampuan awal matematis ( Tinggi, Sedang, Rendah) dan model pembelajaran (STAD dan PBL) terhadap affecacy matematis siswa. Jenis penelitian ini adalah eksperimen semu. Populasi penelitian ini adalah seluruh siswa kelas VIII MTsN 1 Singkil tahun ajaran 2024/2025. Sampel penelitian ini adalah siswa kelas A dan kelas B yang diajar dengan model STAD dan kelas C dan kelas D yang diajar dengan model PBL yang masing-masing berjumlah 36 siswa. Instrumen yang digunakan adalah tes kemampuan komunikasi matematis dan angket self-affectacy siswa. Analisa yang digunakan adalah Two Way ANOVA. Dari hasil uji coba lapangan ditemukan bahwa (1) terdapat pengaruh kemampuan awal matematika (tinggi, sedang, rendah) terhadap kemampuan komunikasi matematis siswa, (2) terdapat pengaruh kemampuan awal matematika (tinggi), sedang, rendah) terhadap affecacy diri siswa, (3) terdapat pengaruh model pembelajaran (STAD dan PBL) terhadap komunikasi matematis siswa, (4) terdapat pengaruh model pembelajaran (STAD dan PBL) terhadap siswa 'afeksi diri matematis, (5) tidak terdapat interaksi antara kemampuan awal matematika (Tinggi, Sedang, Rendah) dan model pembelajaran (STAD dan PBL) terhadap kemampuan komunikasi matematis siswa, (6) tidak terdapat interaksi antara kemampuan awal matematika (Tinggi, Sedang, Rendah) dan model pembelajaran (STAD dan PBL) terhadap affecacy matematis siswa.

Kata Kunci: *Kemampuan Awal Matematis, Problem Based Learning (PBL), Teams Achievement Division (STAD), kemampuan komunikasi matematis, Self Affecacy siswa*



## **ABSTRACT**

This research aims to determine (1) the influence of initial mathematical abilities (high, medium, low) on students' mathematical communication abilities, (2) To describe the influence of initial mathematical abilities (high, medium, low) on students' self-affecacy, (3) To to describe the influence of assisted learning models (STAD and PBL) on students' mathematical communication, (4) To describe the influence of learning models (STAD and PBL) on students' mathematical self-affecacy, (5) To describe whether there is an interaction between initial mathematical abilities (High, Medium , Low) and learning models (STAD and PBL) on students' mathematical communication abilities, (6) To describe whether there is an interaction between initial mathematical abilities (High, Medium, Low) and learning models (STAD and PBL) on students' mathematical self-affecacy. This type of research is quasi-experimental. The population of this study was all students in class VIII MTsN 1 Singkil for the 2024/2025 academic year. The sample for this research was students in class A and class B taught with the STAD model and class C and class D taught with the PBL model, each with a total of 36 students. The instruments used were tests of mathematical communication skills and student self-affecacy questionnaires. The analysis used is Two Way ANOVA. From the results of the field trials, it was found that (1) there was an influence of initial mathematical abilities (high, medium, low) on students' mathematical communication abilities, (2) there was an influence of initial mathematical abilities (high, medium, low) on students' self-affecacy, (3) there is an influence of learning models (STAD and PBL) on students' mathematical communication, (4) there is an influence of learning models (STAD and PBL) on students' mathematical self affecacy, (5) there is no interaction between initial mathematical abilities (High, Medium, Low) and learning models (STAD and PBL) on students' mathematical communication abilities, (6) there is no interaction between initial mathematical abilities (High, Medium, Low) and learning models (STAD and PBL) on students' mathematical self-affecacy.

**Keywords:** Initial Mathematical Ability, Problem Based Learning (PBL), Teams Achievement Division (STAD), mathematical communication skills, student Self Affection

