

ABSTRAK

Nur Syfa, 1202050088, 2024, “Peningkatan Kemampuan Pemecahan Masalah Matematis Dan *Self Persistence* Melalui Pembelajaran Kooperatif Tipe *Talking Stick* Berbantuan Aplikasi *Microsoft Math Solver*”.

Kemampuan siswa dalam pemecahan masalah matematis adalah keterampilan yang perlu dimilikinya untuk bisa memahami masalah, merencanakan penyelesaian masalah, melaksanakan penyelesaian masalah, dan memeriksa kembali jawaban. Namun, kenyataannya menunjukkan bahwa kemampuan siswa dalam memecahkan masalah matematis masih tergolong rendah. Adanya penelitian ini bertujuan untuk meningkatkan kemampuan pemecahan masalah dan *self persistence* siswa melalui model pembelajaran kooperatif tipe *talking stick* berbantuan *microsoft math solver*. Penelitian ini dilakukan di kelas VIII SMP Mekar Arum. Metode penelitian yang digunakan adalah *quasi eksperiment*. Sampel penelitian yaitu kelas VIII C sebagai kelas kontrol dan kelas VIII B sebagai kelas eksperimen. Instrumen yang digunakan terdiri dari instrumen tes yang telah melewati uji validitas, reabilitas, daya beda dan tingkat kesukaran. Adapun hasil penelitian diperoleh mengungkapkan bahwa, (1) Keterlaksanaan model kooperatif tipe *talking stick* berbantuan *microsoft math solver* berada pada kategori baik sekali; (2) Peningkatan kemampuan pemecahan masalah matematis siswa yang menggunakan model pembelajaran kooperatif tipe *talking stick* berbantuan *microsoft math solver* lebih baik secara signifikan daripada siswa yang menggunakan model pembelajaran konvensional; (3) Pencapaian kemampuan pemecahan masalah matematis siswa yang menggunakan model pembelajaran kooperatif tipe *talking stick* berbantuan *microsoft math solver* lebih baik daripada model pembelajaran konvensional berdasarkan tingkat PAM kategori tinggi, sedang dan rendah; (4) Peningkatan sikap *self persistence* siswa yang memperoleh model pembelajaran kooperatif tipe *talking stick* berbantuan *microsoft math solver* lebih baik daripada pembelajaran konvensional. Dengan demikian, pembelajaran kooperatif tipe *talking stick* berbantuan *microsoft math solver* efektif dalam meningkatkan kemampuan pemecahan masalah matematika siswa.

Kata Kunci: Aplikasi *Microsoft Math Solver*, Pembelajaran Kooperatif Tipe *Talking Stick*, Kemampuan Pemecahan Masalah, *Self Persistence*

ABSTRAK

Nur Syfa, 1202050088, 2024, "Increasing Mathematical Problem Solving Ability and Self-Perseverance Through Talking Stick Type Cooperative Learning Assisted by the Microsoft Math Solver Application".

Students' ability to solve mathematical problems is a skill they need to have to be able to understand problems, plan problem solving, carry out problem solving, and recheck answers. However, the reality shows that students' ability to solve mathematical problems is still relatively low. This research aims to improve students' problem solving abilities and self-persistence through a talking stick type cooperative learning model assisted by Microsoft Math Solver. This research was conducted in class VIII of Mekar Arum Middle School. The research method used is quasi experimental. The research sample was class VIII C as the control class and class VIII B as the experimental class. The instruments used consist of test instruments that have passed validity, reliability, distinguishability and level of difficulty tests. The research results obtained reveal that, (1) The implementation of the talking stick type cooperative model assisted by Microsoft Math Solver is in the very good category; (2) The increase in mathematical problem solving abilities of students who use the talking stick type cooperative learning model assisted by Microsoft Math Solver is significantly better than students who use conventional learning models; (3) The achievement of students' mathematical problem solving abilities using the talking stick type cooperative learning model assisted by Microsoft Math Solver is better than the conventional learning model based on high, medium and low PAM levels.; (4) Increasing the self-persistence attitude of students who receive the talking stick type cooperative learning model assisted by Microsoft Math Solver is better than conventional learning. Thus, talking stick type cooperative learning assisted by Microsoft Math Solver is effective in improving students' mathematical problem solving abilities.

Kata Kunci: *Microsoft Math Solver Application, Talking Stick Type Cooperative Learning, Problem Solving Ability, Self Persistence*