

## ABSTRAK

RACHMAT SATRIO WAHYUDI. 2026. **Efektivitas SIGMA-ToSM dalam Meningkatkan Kemampuan Operasi Penjumlahan dan Pengurangan pada Peserta Didik *Slow Learner* : *Single Subject Research***. Program Studi Magister Pendidikan Matematika. Program Pascasarjana. Universitas Siliwangi. Tasikmalaya.

Penelitian ini bertujuan untuk mendeskripsikan profil kemampuan operasi penjumlahan dan pengurangan peserta didik *slow learner* pada kondisi awal, saat intervensi, dan setelah intervensi, serta menguji efektivitas SIGMA-ToSM dalam meningkatkan kemampuan tersebut. Penelitian ini menggunakan pendekatan *Single Subject Research* dengan desain A-B-A yang meliputi fase *baseline-1*, intervensi, dan *baseline-2*. Subjek penelitian adalah seorang peserta didik *slow learner* kelas VIII SMP yang diidentifikasi melalui hasil tes psikologis, wawancara dengan guru, dan tes awal kemampuan operasi hitung dasar. Data dikumpulkan melalui tes menggunakan aplikasi *Test of Second Mathematics* sebagai instrumen asesmen, SIGMA-ToSM sebagai instrumen intervensi, observasi, wawancara, dan dokumentasi. Analisis data dilakukan secara deskriptif melalui analisis visual dalam kondisi dan antar kondisi dengan indikator utama skor *Operasi per Menit* yang merepresentasikan ketepatan dan kecepatan berhitung. Hasil penelitian menunjukkan bahwa rerata kemampuan operasi penjumlahan meningkat dari 4,66 OPM pada fase *baseline-1* menjadi 22,54 OPM pada fase intervensi dan 30,34 OPM pada fase *baseline-2*. Pada operasi pengurangan, rerata kemampuan meningkat dari 4,26 OPM menjadi 14,37 OPM dan 20,13 OPM. Temuan tersebut menunjukkan bahwa kemampuan subjek meningkat selama intervensi dan tetap bertahan setelah intervensi dihentikan. Peningkatan kemampuan pada operasi penjumlahan tampak lebih kuat dibandingkan operasi pengurangan. Hasil analisis visual juga menunjukkan kecenderungan data yang meningkat, perubahan level yang positif, kestabilan pada fase akhir, dan tidak adanya *overlap* antarkondisi. Dengan demikian, dapat disimpulkan bahwa SIGMA-ToSM efektif dalam meningkatkan kemampuan operasi penjumlahan dan pengurangan pada peserta didik *slow learner*.

**Kata kunci:** *efektivitas, operasi hitung dasar, SIGMA-ToSM, single subject research, slow learner*

## ABSTRACT

RACHMAT SATRIO WAHYUDI. 2026. **The Effectiveness of SIGMA-ToSM in Improving Addition and Subtraction Skills of A Slow Learner Student: A Single Subject Research.** Master's Program in Mathematics Education. Graduate Program. Universitas Siliwangi. Tasikmalaya.

This study aimed to describe the profile of a slow learner student's addition and subtraction skills in the initial condition, during the intervention, and after the intervention, as well as to examine the effectiveness of SIGMA-ToSM in improving these skills. The study employed a Single Subject Research approach with an A-B-A design consisting of baseline-1, intervention, and baseline-2 phases. The subject of the study was an eighth-grade junior high school student identified as a slow learner through psychological test results, teacher interviews, and a preliminary test of basic arithmetic skills. Data were collected through tests using the *Test of Second Mathematics* application as the assessment instrument, SIGMA-ToSM as the intervention instrument, as well as observation, interviews, and documentation. The data were analyzed descriptively through visual analysis within and across conditions, with *Operations per Minute* as the primary indicator representing both accuracy and fluency in computation. The findings showed that the mean score of addition skills increased from 4.66 OPM in the baseline-1 phase to 22.54 OPM in the intervention phase and 30.34 OPM in the baseline-2 phase. In subtraction, the mean score increased from 4.26 OPM to 14.37 OPM and 20.13 OPM, respectively. These findings indicate that the subject's skills improved during the intervention and were maintained after the intervention was withdrawn. The improvement in addition was more pronounced than in subtraction. Visual analysis also revealed an increasing trend, positive level changes, stability in the final phase, and no overlap across conditions. It can therefore be concluded that SIGMA-ToSM was effective in improving the addition and subtraction skills of the slow learner student.

**Keywords:** *basic arithmetic operations, effectiveness, SIGMA-ToSM, single subject research, slow learner*