

ABSTRAK**PENGEMBANGAN PROTOTIPE MODUL SEMPOA SEBAGAI PANDUAN
BERHITUNG PENJUMLAHAN & PENGURANGAN DENGAN TELITI BAGI
SISWA KELAS I SD**

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Penelitian ini dilatarbelakangi oleh adanya masalah siswa pada hitung cepat penjumlahan & pengurangan bilangan 1-99 serta sikap teliti siswa saat belajar, selain itu penelitian ini juga memfasilitasi kebutuhan guru dan siswa mengenai sebuah media berupa bahan ajar pada materi tersebut. Penelitian ini bertujuan untuk (1) menjelaskan prosedur pengembangan prototipe modul sempoa operasi hitung penjumlahan dan pengurangan untuk melatih karakter teliti dan (2) mengetahui kualitas prototipe modul sempoa operasi hitung penjumlahan dan pengurangan untuk melatih karakter teliti. Data yang didapat pada penelitian ini dikumpulkan dengan menggunakan evaluasi formatif dan sumatif, meliputi wawancara, observasi, dan kuesioner.

Hasil dari penelitian ini menjelaskan bahwa (1) prosedur penelitian dan pengembangan (R&D) prototipe modul sempoa operasi hitung penjumlahan dan pengurangan untuk melatih karakter teliti menggunakan model ADDIE yaitu: *Analyze, Design, Development, Implementation, dan Evaluation*; (2) kualitas prototipe modul sempoa memperoleh skor rata-rata 3,58 (dari rentang nilai 1-4) kategori “sangat baik” sehingga layak diujicobakan setelah mendapat perbaikan. Implementasi dilakukan kepada 2 siswa kelas I Sekolah Dasar dengan hasil yang menunjukkan bahwa siswa senang dan paham ketika belajar penjumlahan dan pengurangan menggunakan prototipe modul sempoa. Ketercapaian sikap teliti mendapatkan 26 dari 30 pernyataan untuk siswa A dan 23 dari 30 pernyataan untuk siswa B, dari hasil tersebut dapat disimpulkan bahwa siswa dapat belajar dengan teliti.

Kata kunci: modul, sempoa, penjumlahan dan pengurangan, teliti

ABSTRACT**DEVELOPING PROTOTYPE OF ABACUS MODULE AS GUIDELINE FOR 1ST
GRADE ELEMENTARY STUDENTS TO CALCULATE ADDITION AND
SUBTRACTION ACCURATELY**

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The background of this research came from the difficulty faced by students in quick calculations of addition and subtraction of integers 1 – 99, also the accuracy of students during learning process. Furthermore, this research facilitates both teachers and students in their need of media in the form of teaching materials on the topic. The purpose of this research is to (1) explain the procedure in developing a prototype of abacus module for addition and subtraction calculations to habituate accuracy, and (2) find out the quality of the prototype of abacus module for addition and subtraction calculations to habituate accuracy. The data obtained in this research are gathered through means of formative and summative evaluation consisting of interviews, observations and use of questionnaires.

The result of this research shows that (1) the research and development (R&D) procedure of the prototype of abacus module for addition and subtraction calculations to habituate accuracy, utilizes the ADDIE model: Analyze, Design, Development, Implementation, and Evaluation; (2) the quality of the prototype of abacus module for addition and subtraction calculations to habituate accuracy received an average score of 3.58 (on a score range of 1 – 4) and is categorized as “very good”, indicating it is worth for testing after refinement. Implementation was carried out on two first grade elementary students with results showing that students are delighted and understand the topic when learning addition and subtraction utilizing the prototype of abacus module. Based on 30 statements demonstrating achievement of accuracy, student A was able to fulfill 26 of them, while student B achieved 23. Thus, it could be concluded from the result that the students are able to study meticulously.

Keywords: module, abacus, addition and subtraction, accuracy