

TEACHING MULTIPLICATION OF NUMBERS USING MATEMATIKA GASING

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Abstract

This study aimed to discuss how to teach multiplication of numbers from 1 to 10 to STKIP Surya students using Matematika GASING. The materials are taught according to its unique way of teaching mathematics which follows three stages: concrete, abstract and mental calculation. By following these stages in this order, students can understand mathematics more easily and clearly. The research method used in this study was design research. The sample was fourteen first-year undergraduate students at STKIP Surya, Tangerang, Banten. The instruments used were both oral and written tests. They were used to measure the ability of performing mental computation as well as the ability to teach this material. This study showed that Matematika GASING helped these students to understand and be able to teach multiplication of numbers from 1 to 10 better.

Keywords: Multiplication of Numbers From 1 To 10, Matematika GASING, Design Research

Abstrak

Penelitian ini bertujuan untuk mengetahui bagaimanakah mengajarkan perkalian bilangan 1 sampai 10 kepada mahasiswa STKIP Surya menggunakan Matematika GASING. Pembelajaran GASING dilakukan dengan tahapan-tahapan yang unik yaitu konkret, abstrak, dan mencongak. Dengan tahapan-tahapan tersebut, siswa dapat memahami matematika dengan jelas dan mudah. Metode yang digunakan dalam penelitian ini adalah *design research*. Sampel dari penelitian ini adalah 14 orang mahasiswa tahun pertama (kelas matrikulasi) di STKIP Surya, Tangerang, Banten. Instrumen yang digunakan dalam penelitian ini berupa instrument tes tertulis dan tes lisan. Instrumen ini digunakan untuk mengukur kemampuan mencongak dan kemampuan mengajarkan materi. Hasil dari penelitian ini menunjukkan bahwa Matematika GASING dapat membantu mahasiswa dalam memahami perkalian bilangan 1 sampai 10 dan mampu mengajarkan perkalian bilangan 1 sampai 10 dengan lebih baik.

Kata Kunci: Perkalian Bilangan 1 Sampai 10, Matematika GASING, *Design Research*

Multiplication is one of many important mathematical topics taught at elementary schools. It has many applications in our daily life. Learning multiplication begins with learning multiplication of numbers from 1 to 10 which provides the basis for learning multiplication of other larger numbers as well as other related mathematical operations. Students are still having difficulties in learning multiplication and division (Raharjo et al., 2009). They do not remember basic multiplication (multiplication of two numbers where each number is of one digit) which means multiplication of numbers from 1 to 10.

Currently a problem that continues to arise in the field is how to teach students in such a way that they could do basic multiplication aptly. Matematika GASING provides one of possible solutions to this problem; it emphasizes in using logics when learning mathematics. This way students tend to have a fuller grasp of mathematics and do not have to merely memorize or depend on mathematical