

**PENGEMBANGAN MULTIMEDIA PEMBELAJARAN
MATEMATIKA BERDASARKAN TEORI KOGNITIF PADA
MATERI BILANGAN BULAT UNTUK SISWA TUNARUNGU
SMPLB KELAS VIII**

Oleh

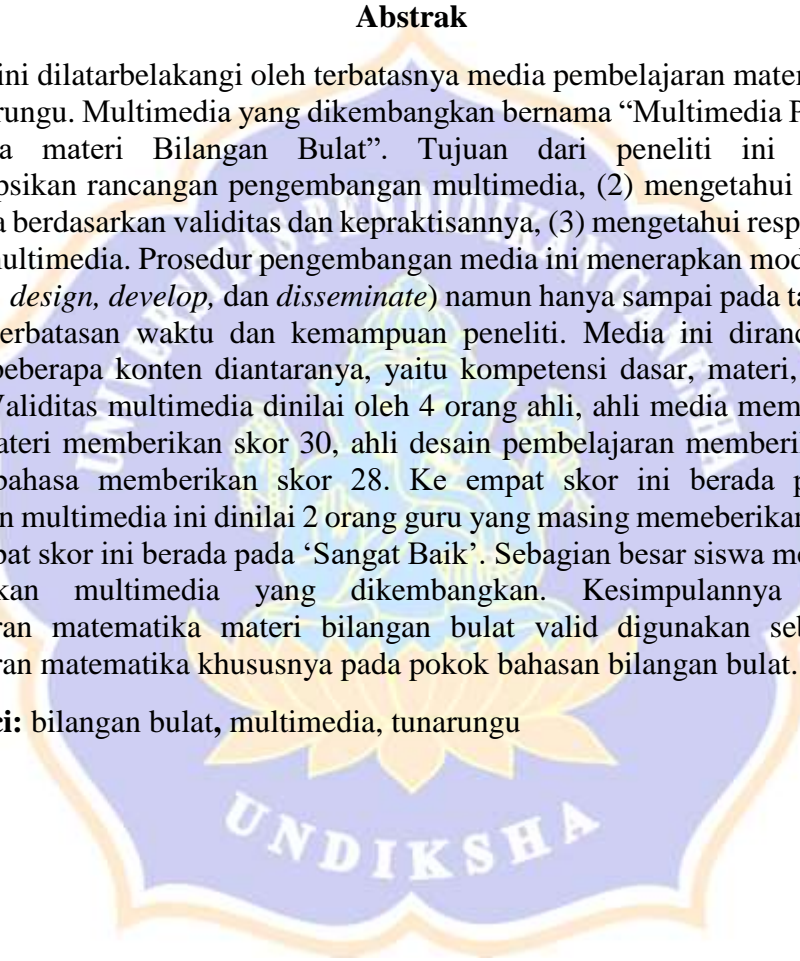
I Made Gusta Sukadana, NIM 1613011044

Jurusan Matematika

Abstrak

Penelitian ini dilatarbelakangi oleh terbatasnya media pembelajaran matematika untuk siswa tunarungu. Multimedia yang dikembangkan bernama “Multimedia Pembelajaran Matematika materi Bilangan Bulat”. Tujuan dari peneliti ini adalah: (1) mendeskripsikan rancangan pengembangan multimedia, (2) mengetahui karakteristik multimedia berdasarkan validitas dan kepraktisannya, (3) mengetahui respon pengguna terhadap multimedia. Prosedur pengembangan media ini menerapkan model penelitian 4D (*define, design, develop, dan disseminate*) namun hanya sampai pada tahap *develop* karena keterbatasan waktu dan kemampuan peneliti. Media ini dirancang dengan memiliki beberapa konten diantaranya, yaitu kompetensi dasar, materi, latihan, dan evaluasi. Validitas multimedia dinilai oleh 4 orang ahli, ahli media memberikan skor 29, ahli materi memberikan skor 30, ahli desain pembelajaran memberikan skor 33, dan ahli bahasa memberikan skor 28. Ke empat skor ini berada pada ‘Baik’. Kepraktisan multimedia ini dinilai 2 orang guru yang masing-masing memberikan skor 96 dan 93. Ke empat skor ini berada pada ‘Sangat Baik’. Sebagian besar siswa merasa tertarik menggunakan multimedia yang dikembangkan. Kesimpulannya multimedia pembelajaran matematika materi bilangan bulat valid digunakan sebagai media pembelajaran matematika khususnya pada pokok bahasan bilangan bulat.

Kata kunci: bilangan bulat, multimedia, tunarungu



**DEVELOPMENT OF MATHEMATICS LEARNING
MULTIMEDIA BASED ON COGNITIVE THEORY ON
INTELLIGENT NUMBERS FOR DEAF STUDENTS IN CLASS
VIII SMPLB**

By

I Made Gusta Sukadana, NIM 1613011044

Department of Mathematics

Abstract

This research was motivated by the limited media for learning mathematics for deaf students. The multimedia developed is called "Multimedia Learning Mathematics for Integers". The aims of this researcher are: (1) to describe the design of multimedia development, (2) to determine the characteristics of multimedia based on its validity and practicality, (3) to determine the user's response to multimedia. This media development procedure applies a 4D research model (*define, design, develop, and disseminate*) but only reaches the *develop* due to the limited time and ability of the researcher. This media is designed to have several contents including basic competencies, materials, exercises, and evaluations. The validity of the multimedia was assessed by 4 experts, the media expert gave a score of 29, the material expert gave a score of 30, the instructional design expert gave a score of 33, and the linguist gave a score of 28. These four scores were in 'Good'. The practicality of this multimedia was assessed by 2 teachers who gave a score of 96 and 93 respectively. These four scores were in 'Very Good'. Most students feel interested in using the developed multimedia. In conclusion, multimedia learning mathematics with valid integers is used as a medium for learning mathematics, especially on the subject of integers.

Keywords: integer, multimedia, deaf

UNDIKSHA