PENGEMBANGAN MEDIA PEMBELAJARAN BERBASIS MODEL "B2LS" UNTUK MENINGKATKAN PEMAHAMAN KONSEP RELASI DAN FUNGSI

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ABSTRAK

Penelitian ini bertujuan untuk mengembangkan karakteristik media pembelajaran berbasis model B2LS (Bruner, Budaya Lokal, dan *Scaffolding*) dan mendeskripsikan efektivitas media pembelajaran berbasis B2LS dalam meningkatkan pemahaman konsep relasi dan fungsi. Pengembangan media pembelajaran ini mengacu pada prosedur pengembangan menurut Plomp. Prosedur tersebut terdiri dari 3 fase yaitu: *Preliminary Research*, *Prototyping*, dan *Assesment*. Dalam rangkaian fase tersebut melibatkan ahli pendidikan matematika, guru dan siswa kelas VIII SMPN 5 Denpasar sebagai subjek penelitian. Selanjutnya, uji coba terbatas dilaksanakan pada kelas VIII C, uji lapangan I pada kelas VIII A, dan uji lapangan II pada kelas VIII B. Perangkat pembelajaran yang dikembangkan berupa media pembelajaran berbasis TIK dengan Aplikasi *Autoplay Media Studio*. Penyajian materi dalam media pembelajaran mengikuti langkah-langkah model B2LS. Data yang dikumpulkan berupa data: 1) validasi media yang didasarkan pada pendapat pakar; 2) kepraktisan media didasarkan pada keterlaksanaan media pembelajaran, respon siswa, dan respon guru; dan 3) keefektifan media pembelajaran dikumpulkan menggunakan tes kemampuan pemahaman konsep. Hasil penelitian menunjukkan bahwa media pembelajaran yang dikembangkan memiliki kualitas valid, praktis, dan efektif. Media pembelajaran berbasis B2LS ini efektif dalam meningkatkan kemampuan pemahaman konsep matematika siswa. Keberhasilan ini didukung oleh data post-tes pemahaman konsep matematika siswa pada materi relasi dan fungsi yang memenuhi kriteria "tuntas" sesuai dengan KKM yang ditentukan di SMP N 5 Denpasar. Selain itu, dari hasil pengamatan proses pembelajaran juga menunjukkan bahwa terjadi perubahan sikap siswa ke arah yang lebih baik seperti tumbuhnya rasa jengah siswa untuk menyelesaikan tantangan yang diberikan. Karakteristik media pembelajaran antara lain: 1) Kegiatan pembelajaran dalam media sesuai dengan tahapan teori belajar Bruner yaitu enaktif yang skenarionya terdapat dalam buku petunjuk guru, ikonik dan simbolik yang ada di dalam media pembelajaran, 2) media pembelajaran memuat konsepsi jengah yaitu adanya kalimat-kalimat motivasi atau penyemangat dalam media serta tantangan-tantangan yang harus diselesaikan siswa untuk mendukung peningkatan pemahaman konsep matematika siswa, dan 3) media pembelajaran memuat *scaffolding* di setiap halaman eksplorasi untuk membantu siswa jika merasa kesulitan dalam memahami suatu konsep.

Kata kunci: Media Pembelajaran, Teori Bruner, Scaffolding, Konsepsi Jengah, Pemahaman Konsep

ABSTRACT

This research was aimed to develop the characteristics of learning media based on the Bruner, Local Culture, and Scaffolding Model (B2LS) and observing the effectiveness of learning media based on B2LS Model in order to enhance the concept understanding on the subject matter of relations and functions. This research using development procedures according to Plomp. The procedure consists of 3 phases: Preliminary Research, Prototyping, and Assessment. In the series of phases involving mathematics education experts, teachers and students of class VIII SMP N 5 Denpasar as research subjects. Furthermore, limited trials were conducted in class VIII C, field test I in class VIII A, and field test II in class VIII B. Learning tools developed were ICT-based learning media with Autoplay Media Studio Applications. Presentation of material in learning media follows the steps of the B2LS model. Data collected in the form of data: 1) media validation based on expert opinion; 2) the practicality of the media is based on the implementation of learning media, student responses, and teacher responses; and 3) the effectiveness of instructional media is collected using concept understanding ability tests. The results showed that the learning media developed had valid, practical, and effective qualities. This learning media received positive responses from teachers and students in developing innovative learning. This can be seen from the questionnaire responses that have been filled out by teachers and students. This B2LS-based learning media is also effective in improving students' understanding of mathematical concepts. This success is supported by the post-test data of students' understanding of mathematical concepts in relation material and functions that meet the "complete" criteria in accordance with the KKM determined at SMP N 5 Denpasar. In addition, the observations of the learning process also showed that there was a change in students' attitudes towards better ways such as the growing sense of embarrassment of students to solve the challenges given, able to reduce assistance in working on problems, and be able to express concepts in their own sentences. Characteristics of instructional media include: 1) Learning activities in the media in accordance with the stages of Bruner's learning theory that is enactive whose scenarios are contained in the teacher's manual, iconic and symbolic that is in the learning media, 2) learning media contains a misconception concept that is the existence of sentences motivation or encouragement in the media as well as challenges that must be resolved by students to support increased understanding of students' mathematical concepts, and 3) learning media includes scaffolding on each exploration page to help students if they find it difficult to understand a concept.

Key words: Learning Media, Bruner's Theory, Scaffolding, Jengah Conception, Concept Understanding