ABSTRAK

Kebutuhan setiap peserta didik dan tujuan pembelajaran matematika menjadi hal penting dalam proses pembelajaran yang dilakukan. Namun, kenyataannya belum semua guru memperhatikan kedua hal tersebut. Sehubungan dengan hal tersebut, penelitian ini memiliki tujuan 1) mengembangkan dan menjelaskan kualitas modul ajar berdiferensiasi dengan paradigma pedagogi reflektif untuk memfasilitasi kemampuan pemecahan masalah pada materi matriks; 2) mengidentifikasi sejauh mana modul ajar berdiferensiasi dengan pendekatan paradigma pedagogi reflektif dapat mengakomodasi kemampuan pemecahan masalah peserta didik.

Penelitian ini menggunakan model pengembangan ADDIE dengan teknik pengumpulan data melalui observasi, wawancara, angket, dan tes. Instrumen penelitian divalidasi oleh tiga validator sebelum dianalisis untuk menilai kualitas modul ajar dan efektivitasnya dalam meningkatkan kemampuan pemecahan masalah peserta didik.

(1) Pengembangan modul ajar dilakukan dalam lima tahap. Pertama analisis, peneliti menemukan bahwa kemampuan pemecahan masalah peserta didik masih rendah, dan guru cenderung menggunakan metode ceramah. Kedua desain, peneliti menyusun modul ajar berdiferensiasi berbasis Paradigma Pedagogi Reflektif. Ketiga pengembangan, peneliti menyempurnakan modul berdasarkan validasi dan revisi dari validator. Keempat implementasi, peneliti menerapkan modul dalam empat pertemuan. Kelima evaluasi, peneliti meninjau kepraktisan, keefektifan, dan perkembangan keterampilan 4C peserta didik. Hasil penelitian menunjukkan tingkat kevalidan modul sebesar 82% (valid), kepraktisan 87% (sangat praktis), dan keefektifan 56,63% (cukup efektif).

(2) Modul ajar berdiferensiasi dengan Paradigma Pedagogi Reflektif dapat mengakomodasi peningkatan kemampuan pemecahan masalah peserta didik secara signifikan. Hal ini ditunjukkan dari kemampuan pemecahan masalah meningkat dari 29% pada Tes Kemampuan Awal menjadi 82% pada Penilaian Harian. Berdasarkan gaya belajar, peserta didik visual mencapai 88%, auditorial 77%, dan kinestetik 81%.

Kata kunci: modul ajar berdiferensiasi, paradigma pedagogi reflektif, pemecahan masalah, kualitas pengembangan.

ABSTRACT

The needs of each learner and the learning objectives of mathematics are important in the learning process. However, in reality, not all teachers pay attention to these two things. In connection with this, this study has the objectives of 1) developing and explaining the quality of differentiated lesson plan with a reflective pedagogy paradigm to facilitate problem solving skills on matrix material; 2) identifying the extent to which differentiated lesson plan with a reflective pedagogy paradigm approach can accommodate students' problem-solving skills.

This research uses the ADDIE development model with data collection techniques through observation, interviews, questionnaires, and tests. The research instruments were validated by three validators before being analyzed to assess the quality of lesson plan and their effectiveness in improving students' problem-solving skills.

(1) The development of lesson plan was carried out in five stages. First, analysis, researchers found that students' problem-solving skills were still low, and teachers tended to use the lecture method. Second, design, researchers compiled differentiated lesson plan based on the Reflective Pedagogy Paradigm. Third, development, researchers refined the module based on validation and revision from validators. Fourth, implementation, researchers applied the module in four meetings. Fifth, evaluation, researchers reviewed the practicality, effectiveness, and development of students' 4C skills. The results showed the module validity level of 82% (valid), practicality of 87% (very practical), and effectiveness of 56.63% (moderately effective).

(2) Differentiated lesson plan with Reflective Pedagogy Paradigm can accommodate a significant increase in students' problem-solving skills. This is shown from the problem-solving ability increased from 29% in the Initial Ability Test to 82% in the Daily Assessment. Based on learning styles, visual learners reached 88%, auditorial 77%, and kinesthetic 81%.

***Keywords**: differentiated lesson plan, reflective pedagogy paradigm, problem solving, development quality.*