

**DESAIN DIDAKTIS PEMBELAJARAN PECAHAN
DI SMP NEGERI 1 NARMADA KABUPATEN LOMBOK BARAT**

DISERTASI

Diajukan untuk memenuhi sebagian syarat untuk memperoleh gelar
Doktor Pendidikan Matematika



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Desain Didaktis Pembelajaran Pecahan di SMP Negeri 1 Narmada Kabupaten Lombok Barat

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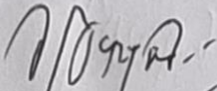
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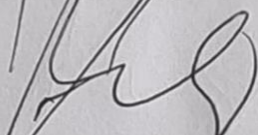
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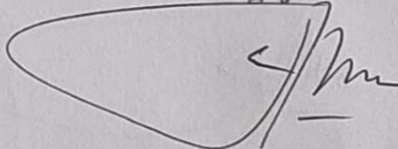
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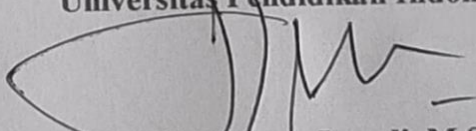


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ABSTRAK

Pecahan adalah salah satu konsep yang cukup penting, tetapi menjadi masalah dalam pembelajaran matematika di SMP, terlebih-lebih pada masa Pandemi Covid-19. Berbagai jenis penelitian dilakukan, tetapi tidak banyak yang menggunakan *didactical design research* sebagai pilihan. Padahal, desain tersebut cukup relevan karena berdasarkan pada dua paradigma, yaitu interpretif (mengidentifikasi jenis hambatan belajar yang siswa alami) dan kritis (memberikan alternatif solusi desain didaktis dalam bentuk modul pembelajaran bagi siswa, guru, dan orang tua). Partisipan dalam penelitian ini adalah siswa, guru, dan orang tua di SMP Negeri 1 Narmada Kabupaten Lombok Barat. Sekolah tersebut tergolong favorit, tetapi masih ditemukan siswa yang mengalami masalah dalam pembelajaran pecahan. Oleh karena itu, penelitian ini bertujuan untuk memperoleh deskripsi yang komprehensif tentang desain didaktis dalam pembelajaran pecahan di SMP Negeri 1 Narmada Kabupaten Lombok Barat, khususnya selama pembelajaran matematika jarak jauh. Peneliti merupakan instrumen utama karena *didactical design research* menggunakan pendekatan kualitatif. Beberapa instrumen tambahan juga digunakan, seperti modul pembelajaran hipotesis, tes pemahaman pecahan, pedoman wawancara, angket, lembar observasi, jurnal penelitian, dan studi dokumentasi. Hasil penelitian menunjukkan bahwa siswa terindikasi mengalami hambatan belajar dengan jenis *ontogenic*, *epistemological*, dan *didactical*. Modul terdiri atas beberapa kegiatan, seperti *Ayo Menebak*, *Ayo Membaca*, *Ayo Mencari (Situasi Aksi)*, *Ayo Bercerita (Situasi Formulasi)*, *Ayo Menyimpulkan (Situasi Validasi)*, *Ayo Berlatih (Situasi Institutionalisisasi)*, dan *Refleksiku*. Setelah implementasi ada beberapa revisi modul, seperti redaksi kalimat, masalah, dan pendekatan dalam menyelesaikan masalah, serta masih ditemukan bahwa siswa mengalami *ontogenic obstacle*. Meskipun, ada indikasi siswa tidak mengalami hambatan belajar karena tidak memiliki cukup waktu dalam belajar.

Kata kunci: Pecahan, *didactical design research*, modul pembelajaran hipotesis.

ABSTRACT

Fractions are a somewhat important concept, but they become a problem in learning mathematics in junior high schools, especially during the Covid-19 Pandemic. Various types of research were carried out, but not many used didactical design research as an option. The design is quite relevant because it is based on two paradigms, namely interpretive (identifying the types of learning barriers that students experience) and critical (providing alternative didactic design solutions in learning modules for students, teachers, and parents). The participants in this study were students, teachers, and parents at SMP Negeri 1 Narmada, West Lombok Regency. The school is classified as a favorite, but students still have problems learning fractions. Therefore, this study aims to obtain a comprehensive description of the didactic design in learning fractions at SMP Negeri 1 Narmada, West Lombok Regency, especially during distance learning mathematics. The researcher is the main instrument because didactical design research uses a qualitative approach. Several additional instruments were used, such as hypothesis learning modules, fraction comprehension tests, interview guides, questionnaires, observation sheets, research journals, and study documentation. The study results indicate that students are indicated to experience learning obstacles with ontogenic, epistemological, and didactical types. The module consists of several activities, such as *Let's Guess*, *Let's Read*, *Let's Find (Action Situation)*, *Let's Tell a Story (Formulating Situation)*, *Let's Conclude (Validation Situation)*, *Let's Practice (Institutionalization Situation)*, and *My Reflection*. After implementation, there were several module revisions, such as sentence redaction, problems, and approaches to solving problems, and it was still found that students experienced ontogenic obstacles. Although, there are indications that students do not experience learning obstacles because they do not have enough time to study.

Key words: Fractions, didactical design research, hypothetical learning module.

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