

**DESAIN DIDAKTIS KONSEP DASAR PECAHAN DI SEKOLAH DASAR**

**(Studi Kasus di 2 Sekolah Dasar Negeri Kota Bandung)**

**DISERTASI**

Diajukan untuk memenuhi sebagian dari syarat memperoleh gelar  
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SEKOLAH PASCASARJANA  
UNIVERSITAS PENDIDIKAN INDONESIA  
2023

**DESAIN DIDAKTIS KONSEP DASAR PECAHAN DI SEKOLAH DASAR**  
**(Studi Kasus di 2 Sekolah Dasar Negeri Kota Bandung)**

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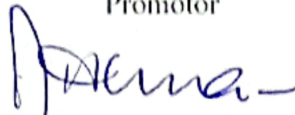
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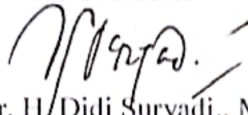
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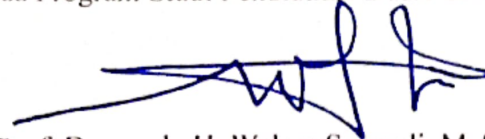
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**DESAIN DIDAKTIS KONSEP DASAR PECAHAN DI SEKOLAH DASAR  
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**ABSTRAK**

Pecahan merupakan salah satu materi terpenting yang menjadi dasar dalam pembelajaran matematika di tingkat sekolah dasar dan menengah. Pentingnya materi pecahan bukan hanya dalam pembelajaran matematika saja, melainkan juga dalam kehidupan sehari-hari. Namun, di sisi lain, terlepas dari urgensinya tersebut, materi pecahan merupakan salah satu materi yang masih menimbulkan banyak hambatan belajar bagi siswa. Beberapa penelitian menyebutkan bahwa hambatan belajar yang muncul pada materi pecahan disebabkan karena kurangnya pemahaman siswa pada konsep dasar pecahan yang merupakan titik tolak dalam pembelajaran pecahan. Diperlukan suatu desain pembelajaran yang dapat mengatasi hambatan belajar siswa tersebut. Oleh karena itu, penelitian ini bertujuan untuk menghasilkan desain didaktis rekomendasi untuk mengatasi hambatan belajar siswa pada konsep dasar pecahan di sekolah dasar. Metode penelitian yang digunakan adalah penelitian kualitatif dengan pendekatan fenomenologi hermeneutik. Analisis dilakukan sesuai dengan tiga tahapan pada *didactical design research* (DDR) yaitu tahap prospektif, metapedadidaktik, dan retrospektif. Instrumen yang digunakan terdiri dari tes, pedoman wawancara, lembar observasi, studi dokumentasi, dan rekaman audio visual. Partisipan yang terlibat dalam penelitian ini terdiri dari 3 orang guru dan 70 orang siswa di dua Sekolah Dasar Negeri di kota Bandung. Hasil penelitian menunjukkan bahwa siswa terindikasi mengalami hambatan belajar dengan jenis didaktis, epistemologis, dan ontogenik. Setelah implementasi, terdapat beberapa revisi pada desain didaktis terutama pengembangan antisipasi didaktis pedagogis sebagai penyempurnaan terhadap desain didaktis rekomendasi.

**Kata kunci:** desain didaktis, konsep dasar pecahan.

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**DIDACTICAL DESIGN OF BASIC CONCEPTS OF FRACTIONS IN  
ELEMENTARY SCHOOL  
(Case Study in 2 Bandung City Elementary Schools)**

**ABSTRACT**

Fractions are one of the most important materials that form the basis for learning mathematics at the elementary and secondary school levels. The importance of fraction material is not only in learning mathematics, but also in everyday life. However, on the other hand, despite the urgency, fractional material is one of the materials that still causes many learning obstacles for students. Several studies have stated that learning obstacles that arise in fractional material are caused by the lack of students' understanding of the basic concepts of fractions which are the starting point in learning fractions. A learning design is needed that can overcome these student's learning obstacles. Therefore, this study aims to produce a didactical design recommendation to overcome student learning obstacles on the basic concepts of fractions in elementary school. The research method used is qualitative research with a hermeneutic phenomenology approach. The analysis was carried out according to three stages in the *didactical design research* (DDR), namely the prospective, metapedadidactic, and retrospective stages. The instruments used consisted of tests, interview guidelines, observation sheets, documentation studies, and audio-visual recordings. The participants involved in this study consisted of 3 teachers and 70 students in two public elementary schools in the city of Bandung. The results of the study indicate that students are indicated to experience learning obstacles with didactical, epistemological, and ontogenic types. After implementation, there were several revisions to the didactical design, especially the development of the pedagogical didactical anticipation as an improvement to the recommended didactical design.

**Keywords:** didactical design, basic concepts of fractions.

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