

**LEARNING OBSTACLES PADA MATERI PERSAMAAN DAN  
PERTIDAKSAMAAN LINIER SATU VARIABEL TERKAIT  
KEMAMPUAN BERPIKIR ALJABAR**

**TESIS**

Diajukan untuk memenuhi salah satu syarat untuk memperoleh  
gelar Magister Pendidikan Matematika



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## ABSTRAK

Abdul Musawwir (2022), *Learning Obstacle* pada Materi Persamaan dan Pertidaksamaan Linier Satu Variabel Terkait Kemampuan Berpikir Aljabar

Aljabar merupakan salah satu topik yang sangat penting dalam matematika sekolah. Namun, fakta dilapangan ditemukan masih banyak kesalahan yang dilakukan oleh siswa dalam menyelesaikan soal pada materi persamaan dan pertidaksamaan linier satu variabel. Penelitian ini bertujuan untuk mendeskripsikan dan menganalisis hambatan belajar (*learning obstacle*) siswa terkait kemampuan berpikir aljabar pada materi persamaan dan pertidaksamaan linier satu variabel. Penelitian ini menggunakan pendekatan penelitian kualitatif dengan desain fenomenologi, melibatkan 30 siswa kelas VIII dan seorang guru matematika di salah satu Madrasah Tsanawiyah di Kota Banda Aceh. Pengumpulan data dilakukan dengan triangulasi data melalui tes uraian, wawancara mendalam dan studi dokumentasi. Hasil penelitian menunjukkan bahwa siswa masih bermasalah dengan semua indikator kemampuan berpikir aljabar. Oleh karena itu, penelitian ini menunjukkan bahwa siswa mengalami *learning obstacle* pada materi persamaan dan pertidaksamaan linier satu variabel terkait dengan kemampuan berpikir aljabar yang terdiri dari *ontogenic obstacle*, *didactical obstacle* dan *epistemological obstacle*. Berdasarkan hasil penelitian, *learning obstacle* yang teridentifikasi tersebut dapat dijadikan pertimbangan atau referensi untuk mengembangkan desain didaktis materi persamaan dan pertidaksamaan linier satu variabel yang lebih optimal. Penelitian ini hanya berfokus pada konsep persamaan dan pertidaksamaan linier satu variabel, maka peneliti merekomendasikan adanya penelitian tentang *learning obstacle* pada materi lain di mata pelajaran matematika.

**Kata kunci:** *Learning Obstacle, Ontogenic Obstacle, Didactical Obstacle, Epistemological Obstacle*, Persamaan dan Pertidaksamaan Linier Satu Variabel

## ABSTRACT

Abdul Musawwir (2022), *Learning Obstacle pada Materi Persamaan dan Pertidaksamaan Linier Satu Variabel Terkait Kemampuan Berpikir Aljabar*

Algebra is one of the most important topics in mathematics which is taught in the school. However, from the facts found in the school, there were still many mistakes made by students in solving problems on the topic of linear equations and inequalities of one variable. This study aimed to describe and analyze students' learning obstacles related to algebraic thinking skills on the topic of linear equations and inequalities of one variable. This method used in this study is a qualitative research approach with a phenomenological design, involving 30 students of grade VIII and one mathematics teacher at one of Madrasah Tsanawiyah (Islamic Junior High School) in Banda Aceh City. Data was collected by triangulating data through description tests, in-depth interviews and documentation studies. The results showed that students still had problems with all indicators of algebraic thinking skills. Therefore, this study showed that students were faced with learning obstacles on the topic of linear equations and inequalities of one variable related to algebraic thinking skills which consist of ontogenic obstacle, didactical obstacle and epistemological obstacle. Based on the research results, the information found from learning obstacles can be used as considerations or references to develop a didactic design for more optimal linear equations and inequalities of one variable learning process. This research only focused on the topic of linear equations and inequalities of one variable. Thus, the researcher recommends the upcoming research on learning obstacles conducted on the other topic of mathematics.

**Keyword:** *Learning Obstacle, Ontogenic Obstacle, Didactical Obstacle, Epistemological Obstacle, Linier Equations and Inequalities of One Variable*

## DAFTAR ISI

HAK CIPTA.....	ii
LEMBAR PENGESAHAN.....	iii
LEMBAR PERNYATAAN ORISINILITAS KARYA.....	iv
KATA PENGANTAR .....	v
UCAPAN TERIMAKASIH .....	vi
ABSTRAK .....	viii
ABSTRACT .....	ix
DAFTAR ISI .....	x
DAFTAR TABEL .....	xii
DAFTAR GAMBAR .....	xiii
DAFTAR LAMPIRAN.....	xiv
Bab I Pendahuluan .....	1
1.1 Latar Belakang .....	1
1.2 Tujuan Penelitian .....	6
1.3 Pertanyaan Penelitian .....	6
1.4 Manfaat Penelitian.....	6
1.5 Definisi Operasional.....	7
Bab II Kajian Pustaka .....	8
2.1 Berpikir Aljabar .....	8
2.2 Learning Obstacle .....	16
2.3 Penelitian yang Relevan .....	19
2.4 Materi Persamaan dan Pertidaksamaan Linier Satu Variabel.....	21
2.5 Teori Belajar yang Relevan .....	23
Bab III Metode Penelitian .....	31
3.1 Desain Penelitian.....	31
3.2 Subjek dan Tempat Penelitian .....	33
3.3 Teknik Pengumpulan Data .....	33
3.4 Instrumen Penelitian.....	35
3.5 Analisis Data.....	36

Abdul Musawwir, 2022

**LEARNING OBSTACLES PADA MATERI PERSAMAAN DAN PERTIDAKSAMAAN LINIER SATU VARIABEL TERKAIT KEMAMPUAN BERPIKIR ALJABAR**

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Bab IV Pembahasan.....	37
4.1 Deskripsi Data Pelaksanaan Penelitian .....	39
4.2 Hasil Penelitian .....	41
4.3 <i>Learning Obstacle</i> Siswa pada Materi Persamaan dan Pertidaksamaan Linier Satu Variabel .....	62
4.4 Pembahasan .....	72
Bab V Kesimpulan.....	81
5.1 Simpulan.....	81
5.2 Implikasi .....	82
5.3 Rekomendasi.....	83
Daftar Pustaka .....	84

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Abdul Musawwir, 2022

**LEARNING OBSTACLES PADA MATERI PERSAMAAN DAN PERTIDAKSAMAAN LINIER SATU VARIABEL TERKAIT KEMAMPUAN BERPIKIR ALJABAR**

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Abdul Musawwir, 2022

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Abdul Musawwir, 2022

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