

## ABSTRAK

**Astrid Anindiya      Analisis Kesulitan Siswa Terhadap Masalah Operasi Hitung Bentuk Aljabar dengan Menggunakan Teori AVAE (ARITH, VAR, AE dan EQS) di Pusat Kegiatan Belajar Masyarakat (PKBM) Paket B**

Pusat Kegiatan Belajar Masyarakat (PKBM) adalah sekolah nonformal yang menawarkan program paket B (setara SMP) bagi siswa yang putus sekolah. Namun, proses kegiatan belajar mengajar terutama materi aljabar tergolong rendah.

Padahal aljabar menjadi materi yang banyak diujikan dalam ujian kesetaraan. Dengan demikian dapat diduga kemampuan siswa dalam topik aljabar tidak memadai.

Oleh karena itu,

tujuan penelitian ini adalah menganalisis jawaban siswa dalam menyelesaikan soal materi operasi hitung bentuk aljabar dan mendeskripsikan faktor-

faktor penyebab kesulitannya berdasarkan jenis-jenis kesulitan pada teori AVAE (ARITH, VAR, AE dan EQS). Penelitian ini merupakan penelitian kualitatif

yang menggunakan desain penelitian studi kasus. Subjek penelitian berjumlah 11 orang yang merupakan siswa kelas IX paket B tahun ajaran 2018/2019 di PKBM Awwaliyah Rohim Jakarta Timur. Teknik pengumpulan data penelitian berupa wawancara dan observasi.

Teknik analisis data melalui pengumpulan data, reduksi penyajian data dan penarikan kesimpulan. Hasil

yang didapatkan menunjukkan kemampuan operasi hitung bentuk aljabar masih sangat lemah dan kesulitan yang paling banyak ditemui adalah pengoperasian bilangan yang termasuk dalam jenis kesulitan ARITH. Selain itu,

ketidakpahaman mengenai tanda sama dengan dan bilangan negatif juga banyak ditemui yang merupakan jenis kesulitan AE, VAR dan

EQS. Penyebab kesulitan dipengaruhi kurangnya kemampuan siswa mengenai materi-

materi prasyarat seperti bilangan bulat dan kurangnya pemahaman simbol-

simbol matematika seperti variabel, tandanegatif dan sama dengan. Kesimpulan yang

didapat bahwa kemampuan siswa dalam operasi hitung bilangan bulat belum baik yang berimplikasi pada rendahnya kemampuan operasi hitung bentuk aljabar. Saran

untuk penelitian selanjutnya bisa meneliti mengenai kesulitan pada materi lain yang diujikan, mengingat materi uji nasional bukan hanya aljabar.

Kata Kunci : Operasi hitung bentuk aljabar, PKBM, paket B, teori AVAE

## ABSTRACT

**Astrid Anindiya**      **Analyze of student's difficulties in the operating material questions to calculate the algebraic using AVAE (ARITH, VAR, AE and EQS) Theory in Pusat Kegiatan Belajar Masyarakat (PKBM) Packet B**

The number of high school dropouts in Jakarta reaches thousands. One of the solutions offered was to join the package B program at the Center of Community Learning Activity or Pusat Kegiatan Belajar Masyarakat (PKBM). However, the process of teaching and learning activities, especially algebraic material, was relatively low. Thus, predictable student's abilities in algebraic topic were inadequate. Therefore, the purpose of this study is to analyze the answers of students in completing the operating material questions to calculate the algebraic form and describe the causes of difficulties based on the types of problems in the AVAE theory (ARITH, VAR, AE and EQS). This research is a qualitative research that uses case study research design. The research subjects were 11 people who were students of grade IX package B, academic year 2018/2019 in PKBM of Awwaliyah Rohim, East Jakarta. Research data collection techniques include test, interviews and observations. Data analysis techniques involved data collection, reduction of data presentation and conclusion drawing. The results obtained indicate that student's abilities in algebraic topic are very low and the most common difficulty is the operation of numbers included in the type of ARITH difficulty. Moreover, there is also a lot of misunderstanding about signs of equal to and negative numbers which are the types of AE, VAR and EQS difficulties. The cause of the difficulty is influenced by the lack of students' abilities regarding prerequisite materials such as integers and lack of understanding of mathematical symbols such as variables, negative signs and equals. The causes of difficulties might be influenced by the attitudes of students, teachers who teach and minimal facilities. The conclusion is that students' ability in integer count operations has not been good which has implications for the low operating ability to calculate algebraic forms. Suggestions for further research, the difficulties of other material being tested can be examined, considering that national exam material is not only algebra.

Keywords : Algebraic Operation, PKBM, Packet B, AVAE Theory