

ABSTRAK

**PERBEDAAN PENGARUH REPRESENTASI MATEMATIS DAN
REPRESENTASI VERBAL TEKS FISIKA TERHADAP PEMAHAMAN**

Masalah penelitian adalah mengetahui bagaimana pemahaman siswa dengan representasi matematis teks fisika atau representasi verbal teks fisika. Sampel penelitian adalah siswa-siswi kelas X SMA N 1 NGAGLIK YOGYAKARTA tahun ajaran 2008/2009 dengan jumlah 60 siswa, yang terdiri dari 30 siswa-siswi kelas X C dan 30 siswa-siswi kelas X F.

Instrumen yang digunakan dalam penelitian adalah Sajian Teks dan Soal Tes. Sajian teks yang diberikan untuk masing-masing kelas adalah satu topik bahasan yaitu prinsip Pascal, ditulis dalam dua versi yang saling ekuivalen, yaitu versi persamaan dan versi kalimat. Soal Tes dalam penelitian ini mengungkap tiga kemampuan, (a) Panerapan langsung dari isi teks (soal penerapan langsung), (b) Trasfer yang menuntut siswa menerapkan informasi teks dalam situasi yang baru (soal transfer), dan (c) Penerapan premis atau hubungan, hubungan yang muncul dalam bukti (soal bukti). Data yang diperoleh dianalisa dengan menggunakan Tes T untuk dua group yang independen.

Hasil penelitian menunjukkan bahwa pemahaman siswa akan konsep prinsip Pascal menjadi lebih baik dengan diberikannya sajian teks dengan representasi verbal.

ABSTRACT

**THE DIFFERENCE BETWEEN MATHEMATICAL REPRESENTATION
AND VERBAL REPRESENTATION INFLUENCE OF PHYSICS TEXT
ON UNDERSTANDING**

The problem of the research was knew how the understanding of the student with the mathematical representation of the text of physics or the verbal representation of the text of physics. The sample of the research was the class students X SMA N 1 NGAGLIK YOGYAKARTA 2008/2009 with the number 60 students, that consist of 30 students X C and that consist 30 students X F.

The instrument that was used in the research was Question of the Text and Question of the Test. The quation of the text that was given to respectively the class was one topic of the discussion that is the Pascal principle, Written in two versions that mutual equivalents, that is the version of the equality and the version of the sentence. The matter of the Test in this research expressed three capacities, (a) The application direct from the contents of the text (quation the direct application), (b) Transfer that demanded the student applied text information in the new situation (question of the transfer), (c) The application of the premiss or relations, relations that emerged in proof (quation of proof). The data that was received was analysed with used Test T for two group that was independent.

The results of the research showed that the understanding of the student would the concept of the Pascal principle became better with was given by him the question of the text with the verbal representation.