

ABSTRAK

Dhiki Dwi Purnama. 2014. Hubungan antara Kemampuan Keruangan dan Hasil Belajar Matematika Pada Materi Bangun Ruang Sisi Datar Siswa Kelas VIII SMP Kanisius Pakem Yogyakarta Tahun Ajaran 2013/2014. Skripsi. Yogyakarta: Program Studi Pendidikan, Jurusan Pendidikan Matematika dan Ilmu Pengetahuan Alam, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Sanata Dharma.

Penelitian ini bertujuan untuk mengetahui (1) seberapa besar kemampuan keruangan yang dimiliki oleh siswa (2) seberapa besar hasil belajar matematika pada topik bangun ruang sisi datar yang dimiliki oleh siswa (3) apakah ada hubungan yang positif antara kemampuan keruangan dan hasil belajar matematika siswa materi bangun ruang sisi datar.

Penelitian dilakukan di SMP Kanisius Pakem Yogyakarta pada bulan April-Mei 2014 semester genap Tahun Ajaran 2013/2014. Populasi dalam penelitian ini adalah siswa kelas VIII SMP Kanisius Pakem Yogyakarta, sedangkan sampel dalam penelitian ini adalah siswa kelas VIII “Kasih” yang berjumlah 27 siswa. Data yang diolah berupa skor tes kemampuan keruangan, skor tes hasil belajar siswa materi bangun ruang sisi datar dan wawancara. Pengolahan data dalam penelitian ini menggunakan uji normalitas *Kolmogorov-Smirnov*, Uji Linearitas, Analisis Regresi Sederhana, dan Analisis Korelasi Pearson.

Berdasarkan hasil penelitian yang telah dilakukan, disimpulkan bahwa (1) kemampuan keruangan yang dimiliki oleh siswa masih tergolong rendah karena rata-rata nilai yang dimiliki hanya sebesar 24,33 pada skala 0 sampai 100 (2) Untuk hasil belajar matematika materi bangun ruang sisi datar yang diperoleh siswa termasuk dalam kategori kurang karena hanya memperoleh rata-rata sebesar 50,95 pada skala 0 sampai 100 (3) hubungan antara kemampuan keruangan dan hasil belajar matematika memiliki hubungan yang positif. Hal ini dapat dilihat dari persamaan regresi dimana $\hat{Y} = 42,894 + 0,306X$. Namun hubungan tersebut termasuk dalam kategori yang rendah, berdasarkan nilai korelasi yang diperoleh yaitu sebesar 0,182. Artinya kemampuan keruangan hanya memiliki pengaruh yang sangat rendah terhadap hasil belajar matematika pada materi bangun ruang sisi datar. Hal ini dapat dilihat pada nilai konstanta yang sebesar 42,894 di mana terdapat banyak faktor yang berpengaruh terhadap hasil belajar siswa antara lain kurang adanya motivasi belajar, minat siswa, kondisi fisik siswa, persiapan siswa saat akan mengerjakan soal tes, dan kemampuan siswa dalam menghafal rumus bukan dalam memahami rumus.

Kata Kunci: Kemampuan keruangan, bangun ruang sisi datar, hasil belajar matematika.

ABSTRACT

Dhiki Dwi Purnama. 2014. Relationship between Spatial Ability and Mathematics Learning Achievement for the Students Class VIII Kanisius Junior High School, Pakem Yogyakarta on the Topic of Polyhedra (Space figures with Flat Faces) in the Academic Year 2013/2014. Undergraduate Thesis. Yogyakarta: Mathematics Education Study Program, Department of Mathematics and Science Education, Faculty of Teacher Training and Education, Sanata Dharma University.

This study aimed to (1) determine the spatial ability possessed by students (2) find out the mathematics learning achievement on the topic of polyhedra possessed by students (3) determine whether there was a positive relationship between spatial ability and mathematics learning achievement for the students, on the topic of polyhedra.

The research was conducted in Kanisius Junior High School Pakem Yogyakarta in April-May 2014 in the Academic Year 2013/2014. The population in this study was the set eighth grade students of Kanisius Junior High School Pakem Yogyakarta, while sample in this study consisted of students of Class VIII "Kasih" which amounted to 27 students. The data were processed in the form of spatial ability test scores, student achievement test scores on the topic of polyhedra and views. The processing of the data in this study used the Kolmogorov-Smirnov test for normality, a part for that linearity test, simple regression analysis and Pearson correlation analysis were also conducted.

Based on the research that has been done, it was concluded that (1) the spatial ability possessed by students was still low because the average score was only 24.33 on a scale of 0 to 100 (2) For the results of mathematical learning outcomes on the topic of polyhedra the students were included in the category of poor achievement because they only gained an average score of 50.95 on a scale of 0 to 100 (3) the relationship between spatial ability and mathematics learning achievement was positive. It can be seen from the regression equation in which $Y = 42.894 + 0,306X$. However, this relationship was included in the low category, based on the correlation value obtained which was equal to 0.182. This means that spatial ability only had a very low impact on learning outcomes of mathematics on the topic of polyhedra. This can be seen in the constant value of 42.894, which means that there were many factors that influenced student learning outcomes including a lack of motivation to learn, student interest, the physical condition of students, current student motivation is work on the preparation of test items, and the ability of students to memorize formulas, not to understand the formulas.

Keywords: spatial ability, polyhedra, mathematics learning achievement.