

ABSTRAK

METODE TANYA JAWAB PADA PROSES BELAJAR MENGAJAR MATEMATIKA UNTUK POKOK BAHASAN PERSEGI PANJANG DAN PERSEGI

Studi Eksperimen pada Siswa Kelas I SLTP Kanisius, Kalasan, Yogyakarta

Saat ini banyak dijumpai proses belajar mengajar yang berorientasi pada paradigma mengajar. Pengajar dianggap sebagai sumber pengetahuan sedangkan siswa dianggap penerima pengetahuan yang menuruti pengajar. Siswa lebih banyak mendengarkan/mencatat, dan kurang terlibat secara aktif dalam proses belajar mengajar sehingga tidak memahami materi yang dipelajari. Salah satu cara melibatkan siswa adalah dengan menggunakan metode tanya jawab. Berdasarkan hal tersebut, maka tujuan penelitian ini adalah untuk mengetahui apakah proses belajar mengajar dengan metode tanya jawab mampu : (1) melibatkan siswa untuk aktif dalam mengikuti proses belajar mengajar matematika, (2) menarik minat siswa terhadap matematika, dan (3) memberikan prestasi belajar matematika yang lebih baik. Prestasi belajar matematika siswa ditunjukkan oleh selisih skor pre-tes dan pos-tes, sedangkan minat siswa ditunjukkan oleh skor pada kuesioner minat. Metode tanya jawab dilaksanakan di kelas eksperimen sedang kelas kontrol menggunakan metode ceramah.

Data yang dibutuhkan pada penelitian ini adalah data tentang keterlibatan, minat, dan prestasi siswa. Data keterlibatan diperoleh dari hasil pengamatan. Teknik analisa yang digunakan adalah analisa kuantitatif untuk data minat dan prestasi siswa, dan analisa kualitatif deskriptif untuk data keterlibatan siswa. Analisa kuantitatif untuk data prestasi dilaksanakan dengan menggunakan Uji T pada taraf signifikansi 5%. Analisa data minat dilaksanakan dengan menghitung jumlah skor yang diperoleh siswa dari hasil pengisian kuesioner. Skor tersebut dikelompokkan ke dalam tabel kategorisasi minat yang terdiri dari kategori berminat, cukup berminat, kurang berminat, dan tidak berminat.

Penelitian menunjukkan bahwa metode tanya jawab cukup mampu melibatkan siswa dalam proses belajar mengajar. Ada kalanya metode tanya jawab tidak cukup mampu melibatkan seluruh siswa secara aktif dalam proses belajar mengajar. Faktor-faktor yang menyebabkan antara lain faktor peneliti, siswa, dan faktor lingkungan/kondisi kelas. Dari segi minat, hasil kuesioner di kelas eksperimen menunjukkan 11,1% siswa berminat terhadap matematika, dan 88,9% siswa cukup berminat terhadap matematika. Di kelas kontrol, terdapat 11,5% siswa yang berminat terhadap matematika, 65,4% siswa cukup berminat, dan 23,1% siswa kurang berminat terhadap matematika. Data ini menunjukkan bahwa metode tanya jawab cukup mampu menarik minat siswa terhadap matematika. Dari segi prestasi, diperoleh $t = 0,669$. Karena $t < t_{tabel} (=1,6775 \text{ untuk } \alpha=0,05 \text{ db}=51)$ maka disimpulkan bahwa rata-rata selisih skor pre-tes dan pos-tes siswa kelas eksperimen tidak berbeda secara signifikan dengan rata-rata selisih skor pre-tes dan pos-tes siswa kelas kontrol. Proses belajar mengajar dengan metode tanya jawab belum mampu memberikan prestasi belajar matematika yang lebih baik.

ABSTRACT

The Question-Answer Method in The Process of Learning and Teaching Mathematics for The Subject of Discussion on Rectangles and Squares

Experimental Study on The First-Year Students of SLTP Kanisius, Kalasan, Yogyakarta

Today we have often seen the learning and teaching process orientating towards teaching paradigm. The teacher is regarded as the source of knowledge, whereas the student is regarded as the receiver of knowledge, the one that obeys the teacher. The student just listens more to the teacher and takes notes and is less actively involved in the learning and teaching process; so the student does not understand the material that he or she is studying. One of the ways to make the student involved is the use of the question-answer method. Based on the above, the objective of this research is then to find out whether the question-answer method can : (1) involve the student actively in taking part in the process of learning and teaching mathematics; (2) arouse the student's interest in mathematics; and (3) improve the achievement of learning mathematics. The student's achievement of learning mathematics is indicated in the difference between the score in the pre-test and that in the post-test, while the student's interest is indicated in the score of the questionnaire on interest. The question-answer method is applied in the experimental class while the lecturing method is applied in the controlled class.

The data required in this research are the data of the involvement, interest, and achievement of the student. The involvement data are obtained from the observation. The analysing technique which is used for the data of the student's interest and achievement is of the quantity analysis and is of the descriptive quality analysis for the student's involvement. Quantity analysis of achievement data is done by using t-test at 5% of the signification level. Analysing the data of the student's interest is done by counting the total score made by the student in his or her filling up the questionnaires. The obtained scores are put in the column of interest in the table consisting of '*interested*', '*quite interested*', '*less interested*', and '*uninterested*'.

The research shows that the question-answer method has done good enough to enable the student to involve himself or herself in the learning and teaching process. Sometimes, the question-answer method can not involve all the student actively in learning and teaching process. Among the casual factors are the factors of the reseacher, the student, and the environment or the class condition. As to interest, the result of the questionnaires in the experimental class indicates that 11,1% of the students is interested in mathematics, and 88,9% is quite interested. While in the controlled class, 11,5% of the students is interested in mathematics, 65,4% is quite interested, and 23,1% is less interested. These data indicate that the question-answer method seems fairly good enough to arouse the student's interest in mathematics. As to achievement, it comes up with $t=0,669$. As $t < t_{table} (=1,6775 \text{ where } \alpha=0,05 \text{ df}=51)$, it is concluded that the average different score between the pre-test and the post-test of the students in the experimental class is not significantly different from that in the controlled class. The learning and teaching process using the question-answer method has not yet resulted in better performance in learning mathematics.