

ABSTRAK

Irvan Malay (2017). **Perbedaan Kemampuan Penalaran Matematis Siswa melalui Pembelajaran Problem Based Learning dengan Pembelajaran Team Assessted Individualization di Kelas VII SMP Islam Al-Ullum Terpadu Medan.**

Pendidikan merupakan hal yang tidak dapat dipisahkan dari kehidupan manusia. Oleh karena itu, pendidikan merupakan kebutuhan yang sangat penting bagi setiap manusia, tanpa ada pendidikan maka manusia akan sulit berinteraksi antara yang satu dengan yang lainnya. Pada pembelajaran di kelas, ada siswa yang mampu menangkap materi dengan cepat ketika disampaikan oleh guru tetapi terdapat juga siswa yang sulit untuk menangkap materi pelajaran yang disampaikan guru. Hal ini dipengaruhi dikarenakan rendahnya kemampuan penalaran siswa. Pada saat pembelajaran matematika di kelas, siswa cenderung mengerjakan latihan berdasarkan contoh yang diberikan oleh guru. Hal ini dikarenakan model pembelajaran yang hanya berpusat pada teori dan pembelajaran di kelas, akibatnya motivasi belajar siswa untuk lebih mengerti dan menguasai materi matematika itu sendiri secara otomatis akan menurun. Penelitian ini merupakan studi eksperimen semu di SMP Islam Al-Ullum Terpadu Medan dan sebagai populasinya adalah seluruh siswa SMP dan mengambil 2 sampel kelas VII SMP Islam Al-Ullum Terpadu Medan secara acak dari 4 kelas yang ada. Data penelitian diperoleh melalui tes kemampuan penalaran matematis siswa pada pokok bahasan Perbandingan. Untuk melihat adanya perbedaan kemampuan penalaran matematis siswa melalui model pembelajaran Problem Based Learning dan kemampuan penalaran matematis siswa melalui model pembelajaran Kooperatif Tipe Team Assisted Individualization, digunakan uji- t pada $\alpha = 0,05$ setelah prasyarat pengujian terpenuhi. Penelitian ini bertujuan untuk menelaah apakah kemampuan penalaran matematis siswa yang memperoleh pembelajaran melalui model pembelajaran Problem Based Learning lebih baik daripada siswa yang memperoleh model pembelajaran Kooperatif Tipe Team Assessted Individualization. Hasil penelitian menunjukkan bahwa: (1) kemampuan penalaran matematis siswa yang memperoleh pembelajaran melalui model pembelajaran Problem Based Learning lebih baik daripada siswa yang memperoleh model pembelajaran Kooperatif Tipe Team Assisted Individualization. Hal ini dilihat dari kemampuan penalaran matematis siswa yang berkemampuan tinggi, sedang, dan rendah. (2) Tidak terdapat interaksi antara model pembelajaran dengan kemampuan awal matematika siswa. Hal ini menunjukkan, perbedaan kemampuan penalaran disebabkan oleh model pembelajaran bukan karena kemampuan awal matematika siswa. (3) Proses jawaban siswa yang diberikan pembelajaran model pembelajaran Problem Based Learning lebih banyak yang mampu daripada siswa yang diberi pembelajaran dengan model Kooperatif Tipe Team Assisted Individualization.

Kata kunci : Penalaran, Model pembelajaran Problem Based Learning, Model Pembelajaran Team Assessted Individualization.

ABSTRACT

Irvan Malay (2017). **The difference of Students' Mathematical Understanding through the Study of Problem Based Learning with the Study of Team Assisted Individualization in the Seventh Grade of SMP Islam Al-Ullum Terpadu Medan**

Education is the thing which cannot be separated from human's life. Therefore, education is very important need for every human being, without education, human being will be difficult to interact between one another. In the classroom, there are students who are capable of capturing the material quickly when delivered by teachers but there are also students who are difficult to capture the subject matter presented teachers. This is affected due to lack of reasoning ability of students. When studying Mathematic in the class, the students tend to do the exercises based on the examples given by the teacher. This is caused by the model of the study which is centered only in theory and in the class, as the result, students' motivation to understand more and master the mathematic materials itself will automatically deficit. This research was apparent experimental study in SMP Islam Al Ullum Terpadu Medan and as the population was all the students of SMP and took 2 sample classes of seventh grade of SMP Islam Al-Ullum Terpadu Medan randomly over 4 classes. The research data was taken from students' mathematical understanding ability test for comparison materials. To see if the difference of students' mathematical understanding existed through model of study of Problem Based Learning and the students' mathematical understanding ability through model of study of Cooperative type of Team Assisted Individualization, it was used $-t$ test at $\alpha = 0,05$ after preconditioned test done. This research aimed to analyze whether students' mathematical understanding ability who had instructional process through Problem Based Learning was better than students who had Cooperative Type of Team Assisted Individualization. The result of the study showed that : (1)The students' mathematical understanding ability who had instructional process through Problem Based Learning was better than students who had Cooperative Type of Team Assisted Individualization. This was seen from students' mathematical understanding ability with high, medium and low level. (2)There is no interaction between learning model with early mathematical ability of students. This shows, reasoning ability differences caused by not learning models for early math abilities of students. (3)The process of students' answers given learning Problem Based Learning teaching model more capable than students who were given Cooperative learning model Type Team Assisted Individualization

Key Words: understanding, Instructional model of Problem Based Learning, Instructional model of Team Assisted Individualization