ABSTRAK

Purnama, Kadek Mira (2019), *Pengaruh Penerapan Pendekatan PMRI terhadap Kemampuan Pemecahan Masalah Matematika ditinjau dari Gaya Kognitif Peserta Didik kelas VII SMPN 3 Tabanan.* Tesis, Pendidikan Matematika, Program Pascasarjana, Universitas Ganesha.
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Kata-kata kunci: kemampuan pemecahan masalah, pendekatan PMRI, gaya kognitif, reflektif, impulsif.

Penelitian ini bertujuan untuk menganalisis: (1) apakah ada perbedaan kemampuan pemecahan masalah matematika antara peserta didik yang mengikuti pendekatan PMRI dengan peserta didik yang mengikuti pembelajaran konvensional, (2) apakah ada perbedaan kemampuan pemecahan masalah matematika antara peserta didik yang mengikuti pendekatan PMRI dengan siswa yang mengikuti pembelajaran konvensional ditinjau dari gaya kognitif, (3) bagaimana pendekatan PMRI mampu meningkatkan kemampuan pemecahan masalah matematika ditinjau dari gaya kognitifnya. Populasi penelitian ini adalah peserta didik kelas VII di SMP Negeri 3 Tabanan. Pengambilan sampel dilakukan dengan teknik random sampling untuk analisis kuantitatif serta *purposive sampling* untuk analisis kualitatif. Penelitian kuantitatif ini dirancang dalam bentuk penelitian *post test only control group design*. Data yang digunakan untuk menentukan gaya kognitif peserta didik berdasarkan kecermatan dan temponya adalah menggunakan *Matching Familiar Figure Test*, sedangkan untuk mengukur kemampuan pemecahan masalah matematika peserta didik diberikan soal pemecahan masalah matematika. Data kuantitatif dianalisis menggunakan uji ANAKOVA satu jalur dengan satu kovariabel. Sedangkan data kualitatif diuji dengan melakukan triangulasi data. Hasil penelitian menunjukkan bahwa: (1) terdapat perbedaan pengaruh penerapan pendekatan PMRI terhadap kemampuan pemecahan masalah matematika dengan nilai P *value* sebesar = 0.37 serta dengan ditunjukkan dengan nilai rata-rata kemampuan pemecahan masalah peserta didik kelas eksperimen lebih besar daripada peserta didik di kelas kontrol; (2) terdapat perbedaan hasil kemampuan pemecahan masalah matematika peserta didik di antara kedua kelas ditinjau dari gaya kognitifnya dengan nilai f hitung sebesar 1.21, dengan nilai rata-rata kemampuan pemecahan masalah matematika, nilai rata-rata gaya kognitif serta interaktivitas peserta didik pada kelas eksperimen lebih besar daripada nilai yang diperoleh peserta didik di kelas kontrol, namun jika dilihat dari nilai pemecahan masalah matematika peserta didik reflektif pada kelas kontrol lebih tinggi daripada peserta didik reflektif dari kelas eksperimen; (3) pendekatan PMRI mampu meningkatkan kemampuan pemecahan masalah matematika pada peserta didik ditinjau dari gaya kognitifnya adalah dengan cara secara rutin melatih permasalahan matematika yang bersifat realistik serta berbagai alternatif cara menyelesaikannya, memotivasi peserta didik untuk mengomunikasikan hasil kerjanya, membangun konsep pemodelan matematika, serta melatih ketelitian dalam memahami, merencanakan, melaksanakan serta pengecekan pemecahan masalah matematika.

ABSTRACT

Purnama, Kadek Mira (2019), The effect of PMRI Approach upon the Mathematic Problem Solving Ability based on Cognitive Styles of Seventh Grade Students of SMP Negeri 3 Tabanan.

This thesis has been revised and approved by Supervisor I: Dr. I Gede Suweken, M.Sc and Supervisor II: Dr. I Wayan Puja Astawa, S.Pd., M.Stat.Sci.

Keywords: mathematic problem solving ability, PMRI approach, cognitive style reflective-impulsivity.

This study aims to analyse and explain: (1) the difference in mathematic problem solving ability between students who were taught with Realistic Mathematic Education Indonesia approach (PMRI) and students who were taught using conventional learning models, (2) the difference in mathematic problems solving ability based on their cognitive style between students who were taught with PMRI approach and students who were taught using conventional learning models, (3) how the PMRI approach is able to improve the students' ability in solving mathematic word problems based on their cognitive style reflection-impulsivity. The population of this study were all of the 7th grade students from SMP Negeri 3 Tabanan. The sample selection is done by using random sampling technique for the quantitative data and using purposive sampling technique for the qualitative data. The research design used a post test only control group design. The students' cognitive-style- reflection-impulsivity were identified by using a Matching Familiar Figure Test, and the students mathematic problem solving ability was evaluated by giving a mathematic word problem test. The quantitative data analysis was performed by using one-way ANCOVA and the qualitative data was analysed by performing triangulation. The results of the study showed: (1) there were differences in mathematic problem solving ability between students who were taught with PMRI and students who were taught using conventional learning models with p value = 0.37 showing that the average student scores (from the experiment class) in solving mathematic word problems is bigger than the student score from the controlled class; (2) there were differences in mathematic problem solving ability based on their cognitive style with f value = 1.21 showing that the average score in solving mathematical problem, average score of cognitive test, and the interactivity of all students from experiment class are better than the all students from the controlled class. However, if each class is divided based on cognitive styles, the average score in solving mathematic problem of reflective students from the controlled class is higher than reflective students from the experiment class; (3) PMRI approach was able to improve the students ability in solving mathematic problems based on their cognitive style reflective-impulsivity by using realistic mathematical problems frequently and how to find the alternative solutions to solve them, motivating the students to present their works, constructing the mathematical model, practicing to be more accurate for their comprehension, planning, implementing and evaluating their problem solving.