

ABSTRAK

Maulana (2016). Meningkatkan Kemampuan dan Disposisi Berpikir Kritis, Kreatif, dan Investigatif Matematis Mahasiswa PGSD melalui Pembelajaran Berbasis Masalah Berstrategi “MURDER”.

Penelitian ini berfokus pada upaya untuk meningkatkan kemampuan dan disposisi berpikir kritis, kreatif, dan investigatif matematis mahasiswa melalui pembelajaran berbasis masalah berstrategi “MURDER” (PBMM). Penelitian ini dilaksanakan atas dasar pentingnya kemampuan berpikir dan disposisi berpikir kritis, kreatif, dan investigatif matematis untuk dimiliki mahasiswa, namun kenyataan masih menunjukkan bahwa kemampuan dan disposisi berpikir ini masih tergolong rendah, yang disinyalir karena pembelajaran kurang memberikan kesempatan kepada mahasiswa untuk mengembangkan kemampuan dan disposisi berpikir tersebut. Penelitian dilaksanakan dengan dua tahapan, yakni penelitian desain didaktis yang dilanjutkan dengan kuasi eksperimen berdesain kelompok kontrol non-ekuivalen. Subjek penelitian adalah mahasiswa PGSD salah satu PT di Jawa Barat, yang terbagi menjadi tiga kelompok. Pada kelas eksperimen 1 digunakan pendekatan PBMM dengan bahan ajar hasil kajian riset desain didaktis (PBMM-DDR), pada kelas eksperimen 2 digunakan pendekatan PBMM saja, sedangkan kelas kontrol menggunakan pembelajaran konvensional. Untuk kepentingan analisis, kelas penelitian ditinjau pula berdasarkan kemampuan awal matematis (tinggi, sedang, rendah) dan latar belakang pendidikan (IPA dan Non-IPA). Data dalam penelitian ini dijangkau dengan tes kemampuan berpikir dan skala disposisi, ditunjang lembar observasi, skala pendapat, dan jurnal harian mahasiswa. Berdasarkan hasil analisis, diperoleh simpulan secara umum, bahwa: (1) PBMM memiliki kontribusi yang lebih baik daripada pembelajaran konvensional dalam meningkatkan kemampuan dan disposisi berpikir kritis, kreatif, dan investigatif matematis; (2) penggunaan bahan ajar berbasis DDR diketahui turut memberikan dukungan terhadap pencapaian hasil belajar yang lebih optimal; (3) terdapat interaksi antara latar belakang pendidikan dan pendekatan pembelajaran terhadap peningkatan kemampuan berpikir kritis dan kreatif, juga terhadap disposisi berpikir kritis matematis, sedangkan terhadap variabel lainnya tidak terdapat interaksi; (4) terdapat asosiasi yang cukup kuat antarvariabel kemampuan berpikir kritis, kreatif, dan investigatif matematis, sementara antara variabel kemampuan berpikir dan disposisinya termasuk asosiasi yang lemah; (5) mahasiswa masih kesulitan dalam menyelesaikan masalah yang melibatkan kemampuan eksplorasi, kepekaan, dan generalisasi; (6) kinerja dosen dan aktivitas mahasiswa termasuk baik, dan mahasiswa memberikan respons positif terhadap PBMM-DDR dan PBMM.

Kata Kunci: Pembelajaran berbasis masalah, strategi “MURDER”, kemampuan berpikir kritis-kreatif-investigatif matematis, disposisi berpikir kritis-kreatif-investigatif matematis.

Maulana, 2016

Meningkatkan Kemampuan dan Disposisi Berpikir Kritis, Kreatif, dan Investigatif Matematis Mahasiswa PGSD melalui Pembelajaran Berbasis Masalah Berstrategi “MURDER”

Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu

ABSTRACT

Maulana (2016). Improving Mathematical Critical, Creative, and Investigative Thinking Abilities and Dispositions of Preservice Elementary School Teacher Study Program Students' through Problem-Based Learning with "MURDER" Strategy.

This research aims to improve students' mathematical critical, creative, and investigative (CCI) thinking abilities and dispositions through problem-based learning with "MURDER" strategy (PBLM). The research was conducted based on the importance of mathematical critical, creative, and investigative thinking abilities and dispositions to be possessed by students but the fact still shows that the thinking abilities and dispositions is still relatively low which presumably because learning less provides students the opportunity to develop that thinking abilities and dispositions. The research was conducted in two phases, namely didactic design study which followed by a quasi-experimental non-equivalent control group design. The subjects of the research were Preservice Elementary School Teacher Study Program students of one of the university in West Java, which are divided into three groups. In the first experimental class, PBLM approach with the results of didactic design research study (PBLM-DDR) teaching materials was applied, in the second experimental class only PBLM approach was applied while in the control class a conventional learning was applied. For analysis purposes, research class was reviewed by mathematical prior knowledge (higher, middle, lower) and educational background (science and non-science). In this study the data was captured by the thinking abilities test and dispositions scale, supported by the observation sheet, opinions scale, and students' daily journals. Based on the analysis result, it could be concluded in general, that: (1) PBLM have a better contribution than conventional learning in improving the mathematical critical, creative, and investigative thinking abilities and dispositions; (2) the use of DDR based teaching materials is found out in providing support to the achievement of more optimal learning result; (3) there is interaction between educational background and learning approaches to the improvement of mathematical critical and creative thinking abilities as well as to the mathematical critical thinking dispositions while to the other variables, there is no interaction; (4) there is a sufficiently strong association between the variables of mathematical critical, creative, and investigative thinking abilities whereas between variables of thinking abilities and its dispositions are included as a weak association; (5) the students are still find difficulties in solving problems which involving the exploration abilities, sensitivity, and generalizations; (6) the performance of lecturers and students are counted as good performance and the students give positive response to the PBLM-DDR and PBLM.

Keywords: Problem-based learning, "MURDER" strategy, mathematical CCI thinking abilities, mathematical CCI thinking dispositions.

Maulana, 2016

Meningkatkan Kemampuan dan Disposisi Berpikir Kritis, Kreatif, dan Investigatif Matematis Mahasiswa PGSD melalui Pembelajaran Berbasis Masalah Berstrategi "MURDER"

Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu

