

ABSTRAK

Puji Lestari (2018). Peningkatan Kemampuan Penalaran Proporsional, Representasi Gambar serta *Belief* Matematis Calon Guru melalui Pembelajaran Model Aktivitas Investigasi Autentik.

Tujuan utama penelitian ini adalah untuk menganalisis secara komprehensif peningkatan Kemampuan Penalaran Proporsional dan Representasi Gambar serta pencapaian *Belief* Matematis mahasiswa sebagai akibat dari implementasi pembelajaran Model Aktivitas Investigasi Autentik (AIA) dan konvensional. Penelitian ini merupakan penelitian kuasi eksperimen menggunakan *pretest-posttest control group design*. Populasi dalam penelitian ini adalah seluruh mahasiswa reguler Program Studi Pendidikan Matematika di salah satu PTS di Kabupaten Garut, sedangkan sampelnya adalah mahasiswa yang sedang menempuh mata kuliah Kapita Selekt Matematika II. Penelitian ini menggunakan beberapa instrumen, yaitu tes kemampuan awal matematis, tes Kemampuan Penalaran Proporsional dan Representasi Gambar, skala *Belief* Matematis, lembar observasi, dan pedoman wawancara. Analisis data dalam penelitian ini menggunakan statistik parametrik dan statistik non-parametrik. Adapun hasil dari penelitian ini adalah: (1) peningkatan Kemampuan Penalaran Proporsional mahasiswa yang memperoleh pembelajaran Model AIA lebih baik daripada mahasiswa yang memperoleh pembelajaran konvensional; (2) terdapat interaksi antara pembelajaran (Model AIA dan konvensional) dan kemampuan awal matematis (tinggi, sedang, rendah) terhadap peningkatan Kemampuan Penalaran Proporsional mahasiswa; (3) peningkatan Kemampuan Representasi Gambar mahasiswa yang memperoleh pembelajaran Model AIA lebih baik daripada mahasiswa yang memperoleh pembelajaran konvensional; (4) terdapat interaksi antara pembelajaran (Model AIA dan konvensional) dan kemampuan awal matematis (tinggi, sedang, rendah) terhadap peningkatan Kemampuan Representasi Gambar mahasiswa; (5) tidak terdapat perbedaan pencapaian *Belief* Matematis mahasiswa yang memperoleh pembelajaran Model AIA dan pembelajaran konvensional, (6) tidak terdapat interaksi antara pembelajaran (Model AIA dan konvensional) dan kemampuan awal matematis (tinggi, sedang, rendah) terhadap pencapaian *Belief* Matematis mahasiswa.

Kata kunci: Penalaran Proporsional, Representasi Gambar, *Belief* Matematis, pembelajaran model AIA.

Puji Lestari, 2018

PENINGKATAN KEMAMPUAN PENALARAN PROPORSIONAL, REPRESENTASI GAMBAR DAN BELIEF MATEMATIS CALON GURU MELALUI PEMBELAJARAN MODEL AKTIVITAS INVESTIGASI AUTENTIK
Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu

ABSTRACT

Puji Lestari (2018). The Enhancement of Pre-service Teachers' Proportional Reasoning Ability, Pictorial Representation Ability and Achievement of Mathematical Belief through Authentic Investigation Activity Model of Teaching.

The main purpose of this research is to analyze comprehensively the result of the implementation of Authentic Investigation Activity (AIA) model learning and conventional learning. This research used a quasi-experimental with pretest-posttest control group design. The population of this research included all pre-service teachers of regular class in the mathematics education department of one of private universities in Garut district and the sample was a group of students attending *Kapita Selekt Matematika II* Subject. This research used various instruments: test of mathematical prior knowledge, test of Proportional Reasoning Ability, Pictorial Representation Ability, test of Mathematics Belief scale, observation sheet, and interview sheet. For data analysis, this research used parametric and non-parametric statistic. The results of this research are: (1) the enhancement of the pre-service teachers' Proportional Reasoning Ability taught by using AIA model learning is better than the enhancement of those who were taught by using conventional learning; (2) there is interaction between learning (AIA model learning and conventional learning) and mathematical prior knowledge (high, intermediate, low) towards the enhancement of the pre-service teachers' Proportional Reasoning Ability; (3) the enhancement of the pre-service teachers' Pictorial Representation Ability taught by using AIA model learning is better than the enhancement of those who were taught by using conventional learning; (4) there is interaction between learning (AIA model learning and conventional learning) and mathematical prior knowledge (high, intermediate, low) towards the enhancement of the pre-service teachers' Pictorial Representation Ability; (5) there is no different achievement in Mathematical Belief between the pre-service teachers who were taught by AIA model and those who were taught by conventional learning, and (6) there is no interaction between learning (AIA model learning and conventional learning) and mathematical prior knowledge (high, intermediate, low) towards the enhancement of pre-service teachers' Mathematical Belief.

Keywords: Proportional Reasoning, Pictorial Representation, Mathematics Belief, AIA model.

Puji Lestari, 2018

PENINGKATAN KEMAMPUAN PENALARAN PROPORSIONAL, REPRESENTASI GAMBAR DAN BELIEF MATEMATIS CALON GURU MELALUI PEMBELAJARAN MODEL AKTIVITAS INVESTIGASI AUTENTIK
Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu