**ABSTRAK**

**Anes Inda Rabbika**, peningkatan kemampuan pemecahan masalah matematis dan representasi matematis serta motivasi belajar melalui pendekatan *Concrete Representational Abstract* (CRA). Tesis Magister Pendidikan Matematika Fakultas Pascasarjana Universitas Pasundan Bandung. Tahun 2018.

Penelitian ini di latar belakangi oleh rendahnya kemampuan pemecahan masalah matematis, kemampuan representasi matematis dan motivasi belajar. Penelitian ini mengkaji tentang peningkatan kemampuan pemecahan masalah matematis dan representasi matematis serta motivasi belajar melalui pendekatan *Concrete Representational Abstract* (CRA) pada model *Problem Based Learning* (PBL) dan model konvensional. Metode yang di lakukan dalam penelitian ini adalah mix methods dengan tipe embedded design. Populasi dalam penelitian ini adalah peserta didik kelas VIII SMP Plus pesantren Amanah muhammadiyah tasikmalaya tahun ajaran 2018/2019. Sampel yang di gunakan adalah 2 kelas dari 4 kelas. Di pilih secara random, dimana 1 kelas sebagai kelas eksperimen dan 1 kelas sebagai kelas kontrol. Instrumen yang di gunakan pada penelitian ini adalah berupa tes kemampuan pemecahan masalah matematis, tes kemampuan representasi matematis, angket motivasi belajar, observasi dan wawancara. Data yang di gunakan untuk menguji perbedaan dua rata – rata adalah uji t atau uji mann whitney (kuantitatif) dan deskripsi (kualitatif). Hasil penelitian ini menunjukkan bahwa 1) kemampuan pemecahan masalah matematis peserta didik yang mendapatkan model *Problem Based Learning* (PBL) dengan pendekatan  *Concrete Representational Abstract* (CRA) lebih baik daripada peserta didik yang mendapat pembelajaran konvensional, 2) kemampuan representasi matematis peserta didik yang mendapatkan model *Problem Based Learning* (PBL) dengan pendekatan  *Concrete Representational Abstract* (CRA) lebih baik daripada peserta didik yang mendapat pembelajaran konvensional, 3) motivasi belajar peserta didik yang mendapatkan model *Problem Based Learning* (PBL) dengan pendekatan  *Concrete Representational Abstract* (CRA) lebih baik daripada peserta didik yang mendapat pembelajaran konvensional, 4) terdapat korelasi antara kemampuan pemecahan masalah matematis dengan kemampuan representasi matematis peserta didik, 5) tidak terdapat korelasi motivasi belajar antara kemampuan pemecahan masalah matematis dengan kemampuan representasi matematis peserta didik.

Kata kunci : *Concrete Representational Abstract* (CRA), kemampuan pemecahan masalah matematis, kemampuan representasi matematis dan motivasi belajar.

**ABSTRACT**

**Anes Inda Rabbika**, the improvement of mathematical problem solving and mathematical representational ability, and learning motivation through Concrete Representational Abstract (CRA). A Master Thesis of Mathematics Education of Postgraduate Faculty Pasundan University Bandung. Year 2018.

This study was conducted because of the low mathematical problem solving and mathematical representational ability, as well as learning motivation. It investigated the improvement of mathematical problem solving and mathematical representational ability as well as learning motivation through Concrete Representational Abstract (CRA) approach in Problem Based Learning (PBL) model and conventional model. The methods used were mix methods with embedded type design. The population was junior high school students grade VIII in SMP Plus Pesantren Amanah Muhammadiyah Tasikmalaya school year 2018/2019. The samples were 2 out of 4 classes. Those were chosen randomly, in which one class was used as an experimental class and the other one as a control class. The instruments in this study were mathematical problem solving test, mathematical representation test, learning motivation questionnaire, observation, and interview. The data in examining the difference of two averages were t test or mann whitney test (quantitative) and descriptive (qualitative). The finding showed that 1) mathematical problem solving ability of students having PBL model along with CRA approach was better than those who had conventional model, 2) mathematical representational ability of students having PBL model along with CRA approach was better than those who had conventional model, 3) learning motivation of students having PBL model along with CRA approach was better than those who had conventional model, 4) the correlation between the ability to solve mathematical problem and mathematical representation was found, 5) the correlation of learning motivation between the ability to solve mathematical problem and mathematical representation was not found

Keywords: Concrete Representational Abstract(CRA), mathematical problem solving ability, mathematical representation ability and learning motivation.