ABSTRAK

SYAMSAH FITRI. Pengaruh *Blended Learning Rotation Model* Strategi Konflik Kognitif Untuk Meningkatkan Kemampuan Spasial Dan Resiliensi Matematis Pada Siswa SMA. Tesis. Medan : Program Pascasarjana Universitas Negeri Medan, Januari 2020.

Penelitian ini bertujuan untuk menganalisis pengaruh *blended learning rotation model* strategi konflik kognitif (BLRMSKK) terhadap kemampuan spasial dan resiliensi matematis siswa setelah menerapkan pembelajaran, serta untuk melihat interaksi antara pembelajaran dan Kemampuan Awal Matematika (KAM) terhadap peningkatan kemampuan spasial dan resiliensi matematis siswa. Penelitian ini merupakan penelitian eksperimen semu dilaksanakan di SMAN 1 Kutalimbaru dengan sampel penelitian sebanyak 72 siswa dengan jumlah masing-masing kelas 36 siswa, kelas XII-3 sebagai kelas *blended learning rotation model* strategi konflik kognitif (BLRMSKK) dan kelas XII-1 sebagai kelas konvensional. Data diperoleh melalui tes KAM, tes kemampuan spasial matematik, dan angket resiliensi matematis siswa. Data dianalisis dengan uji ANAVA dua jalur. Sebelum digunakan uji ANAVA dua jalur terlebih dahulu dilakukan uji normalitas dan homogenitas dalam penelitian ini dengan taraf signifikan 5%. Berdasarkan hasil analisis (ANAVA) diperoleh hasil penelitian kemampuan spasial siswa yang diajarkan dengan *blended learning rotation model* strategi konflik kognitif (BLRMSKK), lebih baik dibandingkan pembelajaran konvensional. Besarnya nilai signifikan yang diperoleh dari ANAVA 0,008 < 0,005. Hal ini menunjukkan ada perbedaan signifikan kemampuan spasial pada kedua pembelajaran, diperoleh nilai signifikansi model pembelajaran dan Kemampuan Awal Matematika (KAM) sebesar 0,183 > 0,05 dapat disimpulkan bahwa tidak terdapat interaksi antara model pembelajaran dan Kemampuan Awal Matematika (KAM) dalam mempengaruhi kemampuan spasial matematis siswa. Selanjutnya resiliensi matematis siswa yang diajarkan dengan *blended learning rotation model* strategi konflik kognitif (BLRMSKK), lebih baik dibandingkan dengan pembelajaran konvensional. Besarnya nilai signifikan diperoleh dari ANAVA 0,000 < 0,005 menunjukkan ada perbedaan signifikan resiliensi matematis pada kedua pembelajaran , sehingga diperoleh nilai signifikansi model pembelajaran dan KAM 0,031 < 0,05. Jadi dapat disimpulkan terdapat pengaruh secara bersama yang diberikan oleh model pembelajaran dan Kemampuan Awal Matematika (KAM) terhadap resiliensi matematis siswa diterima. KAM yang dimiliki oleh siswa merupakan salah satu faktor yang mendukung kemampuan spasial siswa. Temuan penelitian merekomendasikan *blended learning rotation model* strategi konflik kognitif (BLRMSKK) dijadikan salah satu pendekatan pembelajaran yang digunakan di sekolah utamanya untuk mencapai kompetensi berpikir tinggi.

Kata Kunci : *blended learning rotation model* strategi konflik kognitif (BLRMSKK), kemampuan spasial, *resiliensi* matematis, kemampuan awal matematika (KAM)

ABSTRACT

SYAMSAH FITRI. The Effect of Blended Learning Rotation on Cognitive Conflict Strategy Models to Improve Spatial Ability and Mathematical Resilience in High School Students**.** Thesis. Medan: Postgraduate Program, State University of Medan, January 2020.

This study aims to analyze the effect of blended learning rotation cognitive conflict strategy models (BLRMSKK) on spatial abilities and mathematical resilience of students after applying to learn and to see the interaction between learning and Early Mathematical Ability (KAM) on increasing students' spatial abilities and mathematical resilience. This study was a quasi-experimental study carried out at SMAN 1 Kutalimbaru with a sample of 72 students with 36 students in each class, XII-3 class as blended learning rotation cognitive conflict strategy models (BLRMSKK) class and XII-1 class as a conventional class. Data were obtained through Early Mathematical Ability (KAM) tests, mathematical spatial ability tests, and students' mathematical resilience questionnaires. Data were analyzed by a two-way ANOVA test. Before using the two-way ANOVA test, normality and homogeneity test was used in this study with a significance level of 5%. Based on the results of the analysis (ANOVA), the results of the spatial ability of students who are taught with blended learning rotation models of cognitive conflict strategies are better than conventional learning. The significant value obtained from ANOVA 0.008 <significant level of 5%. This shows that there are significant differences in spatial ability in both learning, the significance value of the learning model and Early Mathematical Ability (KAM) obtained is 0.183> 0.05, it can be concluded that there is no interaction between the learning model and Early Mathematical Ability (KAM) in influencing students' mathematical spatial abilities. Furthermore, the mathematical resilience of students taught by the blended learning rotation cognitive conflict strategy model is better than conventional learning. The significant value obtained from ANOVA 0,000 <0.005 indicates that there is a significant difference in mathematical resilience in both learning so that the significance value of the learning model and Early Mathematical Ability (KAM) 0.031 is obtained. So it can be concluded that there is a joint effect given by the learning model and Early Mathematical Ability (KAM) on the mathematical resilience of students accepted. Early Mathematical Ability (KAM) which is owned by students is one of the factors that support students' spatial abilities. The research findings recommend a blended learning rotation cognitive conflict strategy model used as one of the learning approaches used in schools primarily to achieve high thinking competency.

Keywords: blended learning rotation cognitive conflict strategy model (BLRMSKK), spatial ability, mathematical resilience, early mathematical ability (KAM)