

Hasuna Noifa Fenia. 2018. *Pengaruh Penggunaan Lab Riil dan Lab Virtuיל (PhET) Terhadap Hasil Belajar IPA Ditinjau dari Kemampuan Memori*. Skripsi, Program Studi Pendidikan IPA, Fakultas Ilmu Pendidikan, Universitas Trunojoyo Madura. Pembimbing: 1) Laila Khamsatul Muharrami, 2) Ana Yuniasti Retno Wulandari

ABSTRAK

Penelitian dilakukan untuk mengetahui pengaruh laboratorium riil dan laboratorium virtuיל (PhET) ditinjau dari kemampuan memori terhadap hasil belajar. Penelitian menggunakan metode *true experimental* dengan desain faktorial 2 x 2 dan dilaksanakan di MTs. Mazra'atul Ulum Paciran dengan populasi semua siswa kelas VIII Tahun Ajaran 2017/2018. Teknik pengambilan sampel menggunakan *simple random sampling* dengan siswa pada kelas VIII B sebagai kelas laboratorium virtuיל (PhET) dan siswa pada kelas VIII D sebagai kelas laboratorium riil. Teknik pengumpulan data menggunakan tes, angket, observasi dan dokumentasi. Teknik analisis data menggunakan teknik analisis variansi dua jalan dengan sel tak sama. Hasil penelitian menunjukkan bahwa: (1) tidak ada pengaruh penggunaan laboratorium riil dan laboratorium virtuיל (PhET) terhadap hasil belajar IPA dengan nilai signifikansi $0,126 \geq 0,05$; (2) ada pengaruh kemampuan memori terhadap hasil belajar IPA dengan nilai signifikansi $0,000 < 0,05$; (3) ada interaksi antara pengaruh penggunaan laboratorium riil dan laboratorium virtuיל (PhET) dan kemampuan memori terhadap hasil belajar IPA dengan nilai signifikansi $0,000 < 0,05$; (4) keterlaksanaan pembelajaran menggunakan laboratorium riil dan laboratorium virtuיל (PhET) sangat baik dengan persentase 82,54%; (5) respon siswa terhadap pembelajaran menggunakan laboratorium riil dan laboratorium virtuיל (PhET) baik dengan persentase 75,34%.

Kata kunci: hasil belajar IPA, kemampuan memori, laboratorium riil, laboratorium virtuיל (PhET)

Hasuna Noifa Fenia. 2018. *The Effect of Using Real Laboratory and Virtual Laboratory (PhET) Toward Science Learning Outcomes Over Viewed from Memory Capability*. Thesis, Natural Science Education Study Program, Education Faculty, University of Trunojoyo Madura. Advisor: 1) Laila Khamsatul Muharrami, 2) Ana Yuniasti Retno Wulandari

ABSTRAK

The aim of the research was to know the effect of using real laboratory and virtual laboratory (PhET) over viewed from memory capability toward science learning outcomes. The research used a true experimental with factorial design 2×2 and was conducted in MTs. Mazra'atul Ulum Paciran with population was all students in eight grade students in the academic year of 2017/2018. The employed sampling technique was simple random sampling with students in VIII B as the virtual laboratory (PhET) class and students in VIII D as the real laboratory class. Technique of collecting data used test, questionnaire, observation, and documentation. Technique of analyzing data used Two Ways Anova with different cell. The result of the reserach showed that: (1) there was no effect of using real laboratory and virtual laboratory (PhET) toward science learning outcomes with significance value $0,126 \geq 0,05$; (2) there was an effect memory capability toward science learning outcomes with significance value $0,000 < 0,05$; (3) there was an interaction between the effect of using real laboratory and virtual laboratory (PhET) and memory probabily toward science learning outcomes with significance value $0,000 < 0,05$; (4) the implementation of using real laboratory and virtual laboratory (PhET) is very good with precentage of 82,54%; (5) students respons toward learning used real laboratory and virtual laboratory (PhET) is good with precentage of 75,34%.

Keywords: memory capability, real laboratory, science learning outcomes, virtual laboratory (PhET)