

## PENGARUH PEMANFAATAN *LEARNING MANAGEMENT SYSTEM* eLOK UGM TERHADAP RETENSI KOGNITIF MAHASISWA

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### INTISARI

**Latar Belakang:** Pembelajaran daring berkembang pesat akibat pandemi Covid-19. eLOK merupakan *learning management system* yang dikembangkan UGM sebagai transformasi digitalisasi pembelajaran. Namun, belum banyak penelitian terkait pemanfaatan eLOK terhadap pemahaman materi dan retensi kognitif.

**Tujuan:** Mengetahui pengaruh pemanfaatan eLOK terhadap pemahaman materi dan retensi kognitif mahasiswa.

**Metode:** Penelitian ini merupakan kuasi eksperimental dengan rancangan penelitian *pre-post-controlled group design*. Sebanyak 103 responden dibagi menjadi kelompok perlakuan (pembelajaran bauran dengan eLOK) dan kontrol (pembelajaran sinkron). Dilaksanakan *pretest*, *posttest1* (segera setelah pembelajaran sinkron), dan *posttest2* (setelah empat minggu pelaksanaan pembelajaran sinkron). Uji hipotesis menggunakan uji Mann Whitney dan Wilcoxon.

**Hasil:** Analisis variabel *n-gain* menunjukkan tidak ada perbedaan signifikan secara statistik ( $p=0,373$ ). Sedangkan pada variabel daya retensi terdapat perbedaan signifikan secara statistik ( $p<0,001$ ). Berdasarkan uji Wilcoxon, terdapat perbedaan signifikan terhadap peningkatan pemahaman materi (*posttest 1 - pretest*) dan retensi kognitif (*posttest 2 - pretest*) kelompok perlakuan ( $p<0,001$ ).

**Kesimpulan:** Pemanfaatan LMS eLOK memberikan peningkatan pemahaman materi walaupun tidak signifikan secara statistik. Akan tetapi, pemanfaatan LMS eLOK berpengaruh secara signifikan terhadap peningkatan retensi kognitif mahasiswa.

**Kata kunci:** *Learning Management System*, eLOK, Pemahaman Materi, Retensi Kognitif

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## THE EFFECT OF USING ELOK UGM AS LEARNING MANAGEMENT SYSTEM ON STUDENT'S COGNITIVE RETENTION

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### ABSTRACT

**Background:** E-learning is growing rapidly due to the Covid-19 pandemic. The eLOK is learning management system developed by UGM. However, no study investigated the effect of using eLOK on learning comprehension and cognitive retention.

**Aims:** To understand the effect of using eLOK on learning comprehension and cognitive retention.

**Methods:** The study design used in this study is quasi-experimental with a pre-posttest-controlled group design. 103 respondents were divided into treatment group (blended learning using eLOK) and control group (synchronous learning). The data collection was carried out from pretest, posttest1 (immediately after synchronous learning), and posttest2 (after four weeks of synchronous learning). Hypothesis analysis using Mann Whitney and Wilcoxon test.

**Results:** Based on the Mann-Whitney test, the n-gain variable has no significant difference ( $p=0.373$ ). Meanwhile, retention variable significantly differs ( $p<0.001$ ). Based on the Wilcoxon test, there was a significant difference in the short-term learning outcome (posttest 1 - pretest) and long-term learning outcome (posttest 2 - pretest) in the treatment group ( $p<0.001$ ).

**Conclusions:** The use of eLOK may increase student understanding while it is not statistically significant. However, the use of the eLOK has a significant effect on increasing cognitive retention.

**Key words:** learning management system, eLOK, learning comprehension, cognitive retention

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