

**HUBUNGAN PENGGUNAAN *E-LEARNING* DAN BELAJAR MANDIRI
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THE RELATIONSHIP BETWEEN USABILITY IN E-LEARNING AND SELF-DIRECTED LEARNING TOWARD LEARNING OUTCOMES OF ATOMIC PHYSICS (STUDY IN PHYSICS DEPARTMENT STATE UNIVERSITY OF JAKARTA)

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ABSTRACT

The objective of this research was to understand comprehensively the the relationship between usability in e-learning and self-directed learning toward learning outcomes. It was a quantitative research with a survey method conducted in physics department, State University of Jakarta in 2015. The data were collected through participant observation using questionnaires, interview, observation, and test. The data analysis and interpretation indicates that (1) the usability in e-learning relates to learning outcomes; a well-designed e-learning program can provide numerous features conducive to learning (2) self-directed learning relates to learning outcomes; (3) the usability in e-learning and self-directed learning relate to learning outcomes. The findings lead to the recommendation to practice continous education (from basic, intermediate, and advanced level) in order to have effective literacy education for adults.

Keywords: usability in e-learning, self-directed learning, learning outcomes