

ABSTRACT

THE ADEQUACY OF NATURAL LIGHTING INTENSITY IN CLASSROOMS

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According to Permen PU No. 29 / PRT/M/2006, every building must optimize the natural lighting based on the function of the space inside. SMPN 85 Jakarta, which is one of the government buildings and has predicated the national standard school, should fulfill the lighting requirements in accordance with the rules and applicable standards. The SNI 03-6197-2000 about Energy Conservation on Lighting Systems mentions that the standard lighting in the classroom is 250 lux. The phenomenon that occurs in SMPN 85 Jakarta is the classroom users' habit of shutting the aperture with curtains and choosing artificial lighting. This study aims to answer the phenomenon by acknowledging the adequacy of lighting in classrooms. The research is done by combining qualitative and quantitative methods. The quantitative method is done by measuring the lighting conditions in the classrooms and distributing questionnaires to classroom users, while the qualitative method is done by directly observing the classroom users' habits throughout the day for one week. The study was conducted by taking sampling of four classrooms that represent the class position toward the sun's direction. The measurement results indicate an inadequacy of natural lighting in the classrooms even though the curtains remained undrawn throughout the day. The inadequacy has the potential to be the reason for the classroom users to prefer drawing the curtains and using artificial lighting over natural lighting as based on the observations.

Keywords: natural lighting, classroom, natural lighting standards

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