

An Exploration of Lighting Quality on Sleep Quality of Children in Elementary Schools

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Abstract : In this study, we explored the impact of light, particularly daylight on sleep time and quality of elementary school children. Sleep actigraphy was used to measure objectively sleep time and sleep efficiency. Our data show a good correlation between light levels and sleep. In some cases, differences of up to 36 minutes were found between students in low light levels and those in high light level classrooms. We recommend, therefore, that classroom design need to pay attention to the daily daylight exposures elementary school children are receiving.

Keywords : light, daylight, actigraphy, sleep, circadian rhythm, sustainable architecture, elementary school, children

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