

UNIVERSITI TEKNOLOGI MARA

**STUDY THE LIGHTING IN HIGHER
LEARNING SPACES**

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ABSTRACT

Lighting previously has been found affecting people's comfort, productivity, and health. The lack of proper indoor lighting comfortability in learning rooms can have a significant impact on student ability to focus on their learning. This study provides a comprehensive summary of the literature on the impact of indoor lighting on student productivity and visual comfort in higher learning spaces. This research findings show that improving lighting in learning spaces is significant for enhancing student concentration and motivating them to learn more. The survey questionnaire is the method used to find out how lighting affects students learning abilities. The information was gathered through a survey consists of students from UiTM Shah Alam and Puncak Alam to determine their satisfaction with the current indoor lighting quality. The findings of this study will serve as guidance for management efforts to improve the indoor lighting design in higher learning spaces.

KEYWORDS: Natural lighting, learning spaces, Indoor lighting, Artificial light, Human comfort

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CHAPTER 1

INTRODUCTION

Lighting is one of the factors that stimulates human eyesight that includes both artificial lighting, such as lamps and natural indoor lighting in daytime (Groth A 2007). The need for lighting is rising in line with the country development and population growth. People use indoor lighting to keep themselves safe, healthy, and comfortable while carrying out the daily activity.

Study shows that one most of the vital aspects that lead to the enhancement of a good educational environment is visual comfort. Students should feel entirely at comfortable in a space with moderate lighting that illuminates worktables and spaces required for daily tasks. Considering visual tasks like reading and writing are so vital in the educational phase, it's critical to establish pleasant visual environments in learning spaces that encourage these activities. Furthermore, students believe that lighting is an important design element in the classroom (Castilla et al., 2017). The most important aspects of human life, such as health, wealth, and safety, have been found to be influenced by lighting (Boyce,2003). As a result, learning spaces should be designed with a controlled quantity and intensity of light.

The purpose of this research is to identify how lighting influences a student's performance and their ability to concentrate. People's environmental perceptions, attentiveness, and productivity are all affected by lighting (Heerwagen, 2010; IES, 2014). Humans respond to stimuli with their actions. Internal light passes through the eyes and is continuously transmitted to the brain via the optic nerve. The portion of the brain that regulates stimuli and translates it into human behavior is illuminated by light. Some activities are carried out without our consciousness, resulting in unconsciously influenced perceptions impacted by interior lighting (Knez, 2014).