

THESIS RESEARCH

照明偏好與幼兒園兒童活動之關聯性探討以臺灣宜蘭地區為例

**Exploring the Relationship Between Lighting Preferences and
Children's Activities in the Kindergartens in Yilan, Taiwan**



filed by:

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Saya bersedia menerima sanksi yang berlaku sesuai peraturan di Program Studi Magister Arsitektur Universitas Atma Jaya Yogyakarta jika di kemudian hari ditemukan bukti yang memberatkan bahwa saya melakukan plagiarisme sebagian atau seluruh hasil karya seni ini. Saya paham bahwa gelar dan ijazah yang saya terima dapat dinyatakan batal dan harus dikembalikan kepada Universitas Atma Jaya Yogyakarta.

Demikian surat pernyataan ini saya buat dengan sebenar-benarnya, sungguh-sungguh, dan dengan sepenuh kesadaran serta kesediaan untuk menerima segala konsekuensi-nya.

Yogyakarta, 21 Juli 2025

Yang menyatakan,



Jessica Elshya Shallomitha

PREFACE

First, I as an author would like to express my gratitude to the Lord Jesus Christ for all His grace, wisdom, and blessings, enabling me to successfully complete my Master of Architecture thesis, entitled "Exploring the Relationship Between Lighting Preferences and Children's Activities in Kindergartens in Yilan, Taiwan."

This research was conducted as one of the requirements for completing the Master of Architecture program at the Faculty of Engineering, Atma Jaya University, Yogyakarta. I acknowledge that completing this thesis was not easy, but thanks to the support and guidance of various parties, I would like to express my gratitude to:

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The author realizes that this thesis is far from perfect and still has many shortcomings. Therefore, constructive criticism and suggestions are greatly appreciated for future improvements. Finally, I hope this final thesis is beneficial for the author and readers in general.

摘要

照明在塑造室內空間環境方面發揮著關鍵作用，特別是在教育環境中。適當的照明能提升學生的學習體驗，增強視覺舒適度與幸福感。研究人員廣泛探討了照明對學校及大學等教育設施的影響。例如，一項針對教育建築的研究指出，雖然教室的照明水平普遍充足，但高照明對比度與強光源可能引發眩光問題，尤其是在朝東與朝西的教室。

本研究聚焦於宜蘭縣幼兒園，探討幼兒對照明水準的偏好與其活動之間的關聯。照明在營造有利於幼兒教育的環境與吸引力方面扮演關鍵角色。透過觀察與調查方法，本研究分析不同照明條件（自然光、人工光及兩者結合）對幼兒活動參與度、注意力及整體互動的影響。研究結果顯示，幼兒對特定照明水平的偏好與其活動強度間具有顯著相關性，適當的照明能夠增強創造力、減少疲勞，並促進同儕間的社交互動。

本研究強調，在教育環境中應重視照明設計，以促進幼兒的學習成果與幸福感，並為教育工作者及政策制定者提供參考，以營造更符合早期教育需求的學習環境。

關鍵字：照明環境、幼兒發展、學習環境設計、自然光與人工光、兒童行為

ABSTRACT

Lighting plays a crucial role in shaping the environment of indoor spaces, particularly in educational settings. Proper illumination can enhance the visual comfort and well-being of students, by improving their learning experiences. Researchers have explored the impact of lighting on visual comfort in various types of educational facilities, including schools and universities. For example, a study evaluated the lighting performance and visual comfort in educational buildings, finding sufficient lighting levels in classrooms but high lighting contrast and bright visible light sources causing glare issues, especially in east and west-facing classrooms.

This study investigates the relationship between the level of preference lighting and children's activities in kindergartens in Yilan, Taiwan. Lighting plays a crucial role in creating an engaging and conducive environment for early childhood education. Through observational methods and surveys conducted in several kindergartens, this research examines how different lighting conditions—natural, artificial, and a combination of both—affect children's participation, focus, and overall engagement in various activities. The findings reveal a significant correlation between preferred lighting levels and children's activity levels, indicating that optimal lighting enhances creativity, reduces fatigue, and fosters social interaction among peers. This study emphasizes the importance of considering lighting design in educational settings to promote better learning outcomes and well-being for young children. Recommendations for educators and policymakers are provided to create more effective learning environments tailored to the needs of children in early education.

Keywords: lighting environment, early childhood development, learning environment design, natural light and artificial light, child behavior

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