



بسم الله الرحمن الرحيم

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Cairo University

THE EFFECT OF APPLYING PARAMETRIC DESIGN TO EDUCATIONAL FACILITIES IN EGYPT

By
Warda Ahmed Yusuf

A Thesis Submitted to the
Faculty of Engineering at Cairo University
in Partial Fulfillment of the Requirements
for the Degree of
MASTER OF SCIENCE
in
Architectural Engineering

FACULTY OF ENGINEERING, CAIRO UNIVERSITY
GIZA, EGYPT
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Title of Thesis:

The effect of Applying Parametric Design to educational facilities in Egypt

Key Words:

Parametric Design; psychological comfort; educational facilities; identity; student performance.

Summary:

It is necessary for architects to understand the importance of providing comfort to the educational facilities in order to reach maximum human effectiveness of students. To achieve that new design techniques requires to be applied. This technique is applying parametric design, which improves the design of the buildings. New perspective were added in this research where architects have the choice where the parametric design to be headed towards new modern architecture to represent a brand new school with new character or Applying the latest technology while designing a building by adding a certain parameters to maintain the identity of the country. One of the main parameter should be added to the design is the psychology parameter where psychology has a huge impact to the design. By adding this particular parameter it would have a positive impact to psychological comfort, the mental health of the students and their performance.

Disclaimer

I hereby declare that this thesis is my own original work and that no part of it has been submitted for a degree qualification at any other university or institute.

I further declare that I have appropriately acknowledged all sources used and have cited them in the references section.

Name: Warda Ahmed Yusuf Abdulghaffar Alalawi Date: ../../2022

Signature:

Dedication

This study is wholeheartedly dedicated to my beloved mother, **Amira Mahmoud**, who have been my source of inspiration and gave me strength when I thought of giving up, who continually provide their moral, spiritual and emotional support.

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“الْحَمْدُ لِلَّهِ الَّذِي هَدَانَا لِهَذَا وَمَا كُنَّا لِنَهْتَدِيَ لَوْلَا أَنْ هَدَانَا اللَّهُ”

“And they will say: Praise be to Allah, who has guided us to this. Never could we have found guidance, had it not been for the guidance of Allah”

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”وَإِذْ تَأَذَّنَ رَبُّكُمْ لَئِنْ شَكَرْتُمْ لَأَزِيدَنَّكُمْ“

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