

UNIVERSITI TEKNOLOGI MARA

**A SOCIAL CONSTRUCTS MODEL
FOR STUDENT SATISFACTION IN
ARCHITECTURAL DESIGN
STUDIOS WITHIN BLENDED
LEARNING ENVIRONMENTS AT
MALAYSIA'S PUBLIC HIGHER
EDUCATION INSTITUTIONS**

**SAYED MUHAMMAD AIMAN BIN
SAYED ABUL KHAIR**

PhD

February 2025

ABSTRACT

The research explores how social constructs shape students' satisfaction in the blended learning environments (BLE) of architectural design studios (ADS) at the Malaysian public higher education institutions (HEIs) context. The COVID-19 pandemic caused a sudden shift towards online and blended learning, disrupting the traditional model of the studio on which architectural education is grounded. The social, collaborative, and interactive dynamics integral to studio-based learning (SBL) were being significantly challenged, raising concerns about maintaining student satisfaction and engagement in a blended educational framework. Notably, this shift also revealed opportunities for pedagogic innovation, especially in integrating digital tools and blended methodologies. The research identifies a critical gap in how the social constructs of Social Interaction, Social Support, Social Presence, Social Influence, Social Identity, and Social Space influence students' satisfaction in BLE for ADS. To address this gap, the research adopts a quantitative cross-sectional research design using a survey instrument, targeting undergraduate architecture students from selected Malaysian public HEIs. Data from these were analysed using Partial Least Squares Structural Equation Modeling (PLS-SEM) through SmartPLS to test these relationships with student satisfaction and develop the social construct model (SCM). From the findings, Social Interaction and Social Support are strong drivers for student satisfaction, while the influence of Social Influence is relatively moderate. On the other hand, Social Identity and Social Space have no significant or weak influence, which shows the discipline-specific dynamics of architectural education. The results confirm the applicative relevance of socio-constructivist theories in BLE, particularly the Community of Inquiry (CoI) framework. This research contributes to the theoretical discussion in refining the utilisation of social constructs in architecture education and also provides valuable input for educators and policymakers in formulating effective frameworks for blended learning. Recommendations for future research include longitudinal studies on temporal dynamics, integration of emerging technologies, and cross-disciplinary comparative analyses. The research stresses a need for tailoring blended learning approaches to architectural education requirements while taking advantage of digital transformation.

ACKNOWLEDGEMENT

Praise Allah S.W.T. for His blessing and mercy and for all the ease in successfully completing this long and challenging journey. All the hardships and struggles encountered during the journey will be remembered as valuable lessons in my life. He is the All-Hearing and the Omniscient for all the du'as and laments day and night.

My gratitude and thanks go to my supervisor, Dr. Izham Abdul Ghani and co-supervisor, Prof. Sr Dr Thuraiya Mohd, for all the guidance, expertise, motivation and emotional support throughout the studies. I appreciate all the patience in guiding and supervising in this intellectual journey.

I want to dedicate this thesis to my lovely wife, for all her cooperation and understanding while I manage my study, career and family. The struggle to complete this PhD as a part-time student while working and having a family is challenging but also a great self-reflection to contemplate with a sense of purpose and responsibility. I want to apologise to my kids

because sometimes gets stressed, tired and cannot accommodate your needs, studies and playing time together. I hope my struggles and stressful years will be proof that no success is achieved without pain and challenges. May Allah bless all of you with knowledge and wisdom. I hope these memories and experiences inspire you to become a better person more than your

Furthermore, I would like to dedicate this PhD to my parents for all the du'as and faith for me to complete this study. It was challenging with the MCOs during the pandemic, and also, mom's health is degrading with dementia and mild stroke during the end of the year to submit the thesis. Thanks to my dad for the hardship of serving and taking good care of my mom. Not to forget my appreciation and thanks to all my sisters who supported me and helped to care for our parents while I was far from Kuala Lumpur most of the time. May Allah grant my parents and sisters with Jannah for all the good deeds. To my in-laws, I would like to thank you for all the trust and understanding in every situation I had while completing this PhD study.

Finally, my appreciation goes to all my friends and colleagues who assisted, shared their knowledge and experiences, and showed empathy for my struggles juggling time between working, studying and commitment as a husband and father of 4 kids. Thanks for hanging out and spending some time be my good listeners all my complaints and sharing.

I hope all the 'ilm (knowledge) and hikmah (wisdom) that I acquired transcend into 'amal (good deeds) beneficial to the ummah (people) and watan (nation). Alhamdulillah thumma alhamdulillah, haza min fadhli rabbi. La hawla wala quwwata illa billah.

Thank you.

TABLE OF CONTENTS

	Page
CONFIRMATION BY PANEL OF EXAMINERS	ii
AUTHOR’S DECLARATION	iii
ABSTRACT	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	xi
LIST OF FIGURES	xiii
LIST OF ABBREVIATIONS	xv
CHAPTER 1: INTRODUCTION	1
1.1 Research Background	1
1.1.1 The Impact of the COVID-19 Pandemic on Higher Education Institutions	1
1.1.2 COVID-19 and Its Disruption of Studio-Based Architectural Learning	2
1.1.3 Challenges of Remote Architecture Design Studio (ADS) Learning During the COVID-19 Pandemic	4
1.1.4 Improving Architecture Design Studio (ADS) Learning During the COVID-19 Pandemic and Post-Pandemic	5
1.2 Social Constructs and Student Satisfaction in Blended Architectural Design Studios	7
1.3 Challenges and Opportunities in Integrating Digital Technology in Architectural Education	8
1.4 Problem Statement	12
1.5 Research Aim	14
1.6 Research Questions	14
1.7 Objectives	14
1.8 Research Hypotheses	14

CHAPTER 1

INTRODUCTION

1.1 Research Background

1.1.1 The Impact of the COVID-19 Pandemic on Higher Education Institutions

The world was shocked by the global pandemic caused by COVID-19 in early 2020. Businesses, sports activities, services, and education needed to close. Higher Education Institutions (HEI) were also adversely affected by the new-onset COVID-19 pandemic (Chung, Mohamed Noor & Mathew, 2020). This event has forced HEIs to change their operations and academic delivery. It is not an easy task for drastic changes where before COVID-19 happens. Several parties within the education system must be concerned about the digital transformation of HEI, and currently, people's abilities to apply new technology in all facets of life are incremental. Thus, universities must prepare potential professionals for the future (Bond, Marín, Dolch, Bedenlier, & Zawacki-Richter, 2018; Sandkuhl & Lehmann, 2017) and respond to the changes imposed due to novel technologies (Abad-Segura, González-Zamar, Infante-Moro & Ruipérez García, 2020).

The Ministry of Higher Education (MOHE) declared that until the end of December 2020, all public and private universities in Malaysia would conduct teaching and learning activities via online learning (Malaysian Ministry of Higher Education, 2020). However, Joshi et al. (2020) stated that online learning's education effectiveness is questionable due to the absence of face-to-face interactions between students, students, and tutors. Hence, Hodges et al. (2020) distinguished well-planned online learning (OL) experiences from crisis-response courses. Additionally, these researchers referred to online education during this pandemic as "emergency remote teaching," contrary to high-quality or effective online learning.

On the other hand, moving forward with the 12th Malaysia Plan (Economic Planning Unit, 2021), teaching and learning will be more effective if the academic staff is good and can pass on their knowledge and skills to the students. This way, teaching and learning will be improved by incorporating self-directed, peer-oriented, virtual-based, and experiential learning methods. The Digital Education Strategy will speed up