Research Proposal

Research Topic:

Students' Personality Profile Influences Their Perception on the Design of Architecture Design Studio as a Learning Environment

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The design studio is the most crucial space for architecture students.

However, the design studio is unfortunately being minimally studied in general (Lueth, 2008).

Architecture Design Studio

1.How much we know about it?

2.What is considered good design?

3.What are the basic design attributes?

4.What are the students' perception toward it?

Problem Statement

Educators are concerned about the issues raised regarding the lack of use of design studios by architecture students. (Duggan, 2004)

Perhaps these students are just making a silence protest. Frequently, the studio space offered by numerous institutions is insufficient, sometimes with regards to the quantity, however more frequently with regards to the quality.

1. What are the criteria for a design studio environment to be considered as favorable for students?

2. Whether a certain environmental characteristics essential for all students?

3. Or perhaps some designs are appropriate only for specific student types?

Problem Statement

The lack of systematic documentation causes potential bottleneck for designers, educators and students in better understanding of design characteristics of studio.

It is indeed very difficult to facilitate any positive change in design studio environment without systematic understanding of interaction process between students and studio environmental setting.

To make the situation even worst is decisions making power about studio facilities tend to be in the hand of few people who are not direct users.

UTM – Architecture Design Studio

USM – Architecture Design Studio (Year 4-5)

USM – Architecture Design Studio (Year 1-3)

UTAS – Architecture Design Studio

Kolej Laila Taib – Architecture Design Studio

This study aims to investigate the relationship between

personality differences of architecture students

and

their perception toward the physical design of architecture design studio as satisfying their privacy need in architectural studies.

i.   To identify physical environmental factors that influence students study and learning behaviour in architecture design studio.

ii.   To determine the collective personalities of architecture students in understanding their dominant characteristics in architecture design studio setting.

iii. To investigate the correlation between students' personality and their perception towards the particular physical design of architecture design studio related to privacy dimensions that influence their study and learning behaviour.

Assumption

There is a significant relationship between students' personality and the way they perceive the design of architecture design studio as satisfying their privacy need in accomplishing architectural education.

i.   What are the physical environmental factors that affect architecture students' study and learning privacy need in the context of architecture design studio?

Research Objectives

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ii.   To determine the collective personalities of architecture students in understanding their dominant characteristics in architecture design studio setting

iii.   To investigate the correlation between students' personality and their perception towards the particular physical design of architecture design studio related to privacy dimensions that influence their study and learning behaviour

ii.   What are the personal characteristics of architecture students that influence how architecture design studio is organised and shaped?

iii.   Does the different students' personality have significant effects on their perception on the design of architecture design studio?

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iv. Does the students' perception on the design of architecture design studio regarding privacy issues have an impact on their learning and study behaviour?

v. What are the optimal privacy designs attributes of architecture design studio as accordance to different categories of students personality profile?

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Research Background

1. Moos (1986) stated that the most powerful technique to influence human behaviour is through the arrangement of environments.

2. Winston Churchill in his famous quote of "We shape our buildings and then they shape us".

3. Kurt Lewin (1936) - behavior is a function of the person and environment.

4. This leads to a conclusion that particular environmental setting will lead to certain intended behaviour (Baker, 1968; Moos, 1986; Dewey, 1993).
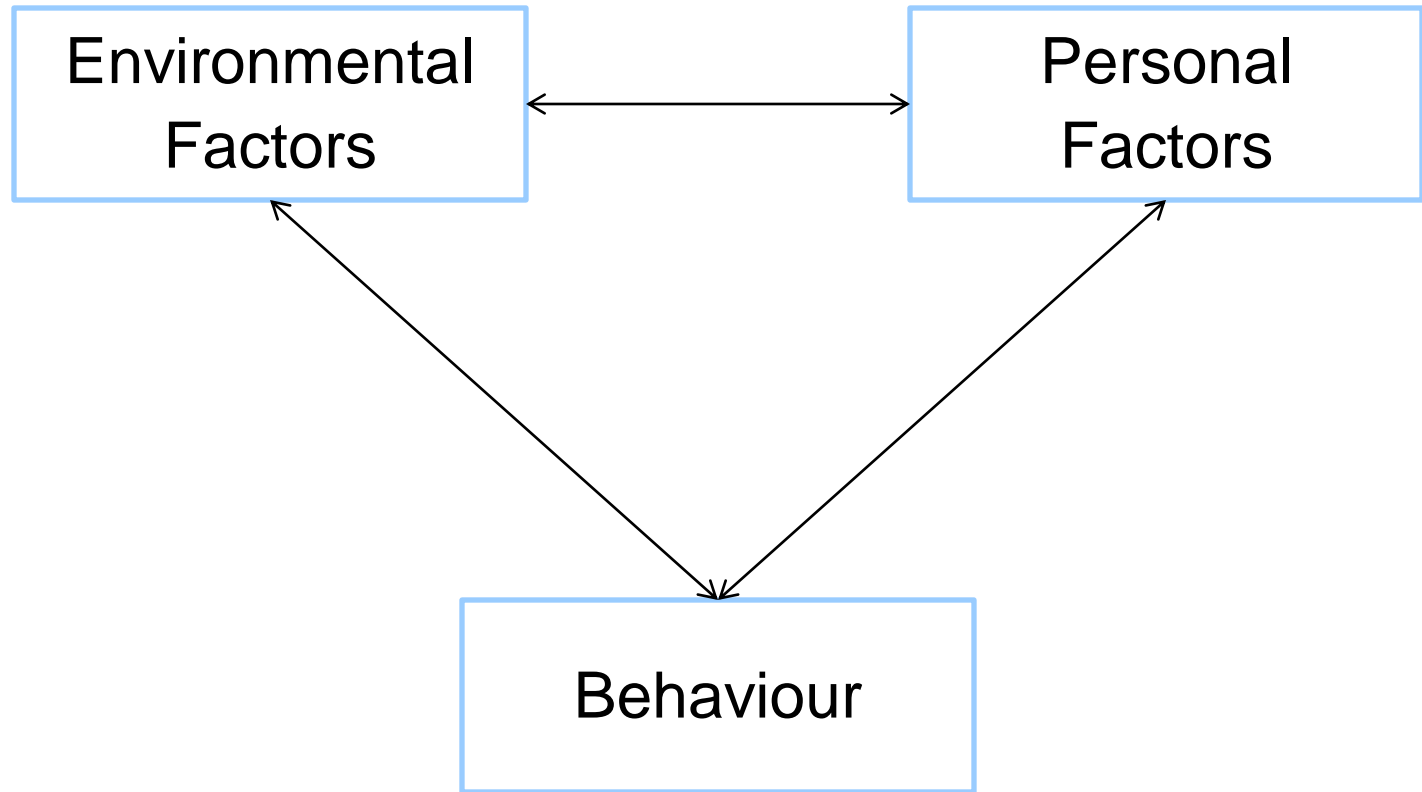
Environmental Factors

Room temperature, air quality, glare, noise, lighting, seats comfort, possibilities of arrangement, flow between spaces, functionality, and etc. have a great effect on the standards of teaching and learning in design studio (Obeidat et al, 2012; Hassanain et al., 2012; Temple, 2007; Sanoff, 1993; Huang ,1998; Nasir et al., 2011)

Personal Factors

Psychological factors: Inhabitants' personality types, interests or style. Demographic factors: Inhabitants' gender, age or racial-ethnic composition issues. (Holland, 1966, 1973; Walsh & Holland, 1992; Clark and Trow, 1966; Astin, 1968, 1993; Myers, 1980; Kolb, 1983; John & Srivastava, 1999; Strange & Banning, 2001)

Behaviour

1."Whether individuals are attracted to a particular environment or satisfied and stable within that environment, is a function of how they perceive, evaluate, and construct the environment. In effect, their perceptions are the reality of that environment for them." (Strange & Banning, 2001)

2.Gibson's theory of affordance (Gibson, 1976, 1979).

3.The meaning of built environment (Rapoport,1982,1994,2005; Maslow & Mintz, 1956; Hansen & Altman,1976; Sommer, 1978)

Research Gap

Major Studies of Design Studio	Concern and Findings	Setting (Context)	Parameter Being Measured / Discussed
Obeidat & Al-Share (2012)	Concern: Users' perception of design-studio classroom environment in fulfilling their needs and objectives. Finding: Satisfaction of the users is impacted by the physical environment of studio. Lighting is the most important feature.	Design and architecture field in Jordan	Lighting, Noise, Glare, Air quality, Temperature, Seats comfort, Arrangement ,Designated workstations
Hassanain et al. (2012)	Concern: Performance appraisal framework for architectural design studio facilities. Finding: Performance appraisal framework acts as effective post occupancy evaluation method to identify performance problem of design studio facilities and work out remedial measures.	Architecture design studios at King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia.	Facilities of architecture design studio
Osman & Demirkan (2000)	Concern: Students' privacy preference in design studio Finding: Privacy preference in between male and female shows no difference in term of solitude, reserve, anonymity, and isolation. The only different is male tends to enjoy intimacy with friend rather than family whereas female preferred the other way around.	Interior design studio at Bilkent University, Bilkent, Ankara, Turkey	Privacy dimension: - Personal space - Territoriality - Crowding
Huang (1998)	Concern: Open-plan design studio Finding: A conceptual model of the physical and social-psychological environment for open-plan landscape architecture design studio	Design studio for Landscape Architecture at University of Guelph, Guelph, Ontario, Canada	Physical Factors: Ambient Factors: Psychophysical Factors:
Abdullah et al. (2011).	Concern: Possible design approach in planning and designing architecture learning spaces Finding: Architecture learning is not restricted to design studio as the built environment and the landscape can be regarded as a place where learning occurs.	Malaysia	- Studio culture - Learning spaces
Musa et al. (2012a).	Concern: Indoor environmental quality - Lighting performance Finding: The lighting setting is not within the range of Malaysian Code of Practice on Indoor Air Quality. Students are still willing to use the studio as they perceived it as not abnormal.	Year 3 architecture design studio at Universiti Kebangsaan Malaysia (UKM), Malaysia	Lighting
Musa et al. (2012b).	Concern: Indoor environmental quality - Temperature Finding: The temperature setting is not within the range of MS 1525:2007. However, such condition does not stopping students to work in the studio for long hours.	Year 3 architecture design studio at Universiti Kebangsaan Malaysia (UKM), Malaysia	Temperature
Che-Ani et al. (2012)	Concern: Indoor Environmental Quality (IEQ) of architecture design studio Finding: Most of the architecture student agreed that the temperature comfort, humidity, day lighting, glare and brightness are most important for internal studio environment	Year 3 architecture design studio at Universiti Kebangsaan Malaysia (UKM), Malaysia	- Temperature - Lighting
Nasir et al. (2011)	Concern: Identification of Indoor Environmental Quality (IEQ) Parameter in Creating Conducive Learning Environment for Architecture Studio Finding: Indoor Environmental Quality (IEQ) Parameter for architecture studio includes thermal comfort, air quality, disturbances, control, appearance, general atmosphere and lighting.	-	- Thermal comfort - Ventilation - Noise - Suspended materials in the air - The chemical content composition
Kurt (2009).	Concern: Traditional design studio versus constructivist studio Finding: Characteristics of traditional studio environments in comparison to constructivist studio.	-	- Traditional studio environments - Constructivist studio
Duggan (2004)	Concern: The Changing Nature of the Studio as an Educational Setting Finding: Challenges faced by the users and providers of studio space in tackling unacceptably low space utilization	-	- Studio space utilization - Studio Culture
Lueth (2008).	Concern: Student perception of learning experiences in design studios Finding: The students described their learning experiences as inter-relational, perceived the experiences as transitional, and felt that their learning experiences aided in the production of outcomes.	Architecture students from first-through fourth-year at Iowa State University, United States	- Learning experiences
Ochsner (2000)	Concern: A Psychoanalytic Perspective on Interaction in the Design Studio Finding: The nature of the interaction between instructors and students in the studio environment shall be examined under the psychoanalytic perspective	-	- Instructors - Students - Studio environment

Research Gap

There is lack of empirical research data of the design studio especially in the perspective of person-environment relationship.

Little is known about this place where students interact and consult with one another; display their projects for crit sessions as well as exhibitions (Huang, 1998; Lueth, 2008; Obeidat & Al-Share, 2012).

Research Gap

Previous studies related to design studio are mostly conducted outside of Malaysia context. Available information is only restricted to the works on Indoor Environmental Quality (IEQ) Parameter conducted in Universiti Kebangsaan Malaysia (Nasir et al, 2011; Musa et al, 2012; Che-Ani et al, 2012).

Research Gap

Meanwhile, the gap of integrated perspective concerning the design studio environment is yet to be filled.

Person-environment relationship in the context of design studio requires more exploration especially in term of the impact of student's personality on their perception of preferred spatial quality in fulfilling their personal privacy need.

Such study attempts to provide clear pictures of the studio environment impact from the perspective of the individual students in order to create conditions that minimize undesirable effects.

Theoretical Framework
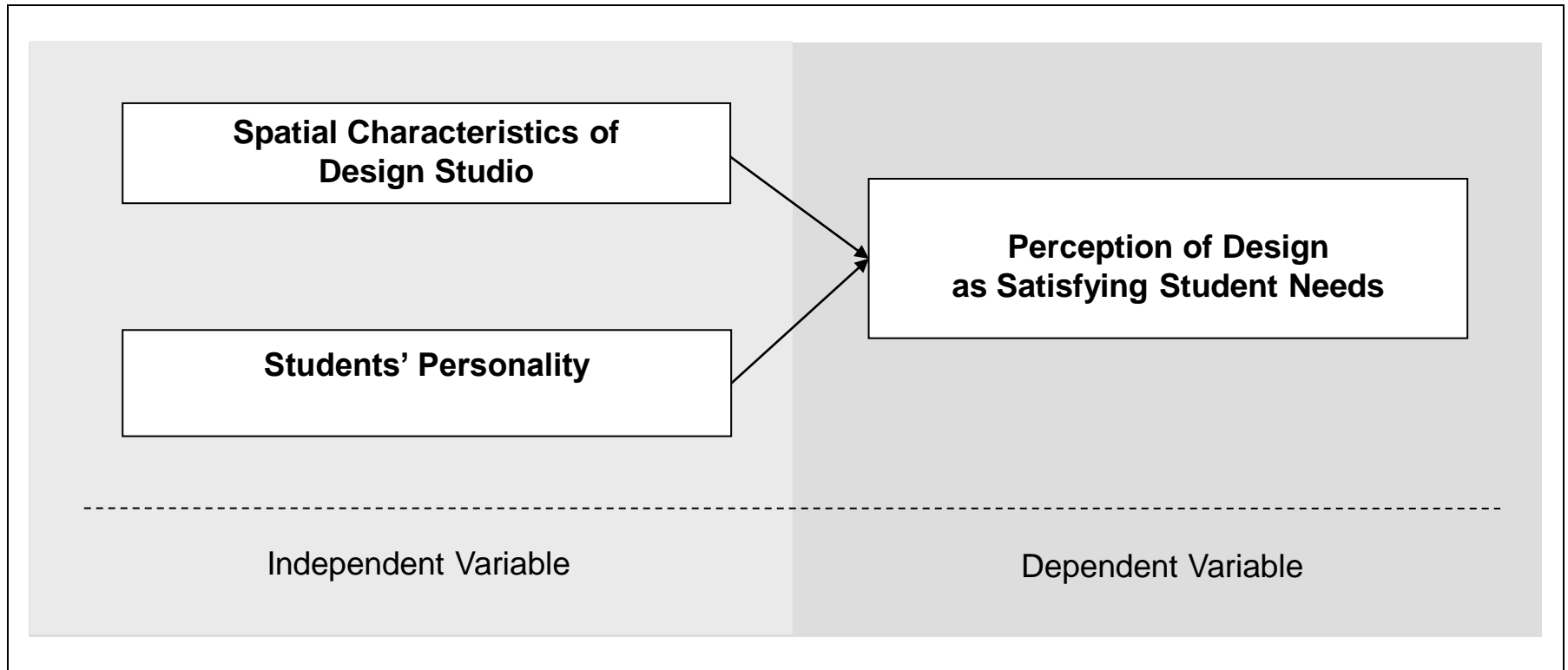
Theoretical Framework

Spatial Characteristics of Design Studio

1. Technical: Visual Comfort, Thermal Comfort, Acoustical Comfort, Fire safety

2. Functional: Furniture, Layout, Interior Finishes, Brainstorming space, Support Services

Students' Personality

1. Where do we get our energy?
2. How do we take in information?
3. How do we make decisions?
4. How do we organize our world?

Dependent Variable

**Perception of Design
as Satisfying Student Needs**
1. Perceiving
2. Utilizing
3. Shaping

Expected Outcome

**Users' Design Preference
(Privacy Dimension)
According to Their Personality**

Personality Profile Types: Myers-Briggs Type Indicator

- Extraversion (E) or Introversion (I)
- Sensing (S) or Intuition (N)
- Thinking (T) or Feeling (F)
- Judgment (J) or Perception (P)

Dimensions of Environmental Psychology

- Personal Space
- Territories
- Crowding

Privacy Preferences: Pedersen's Six States of Privacy

- Solitude
- Reserve
- Intimacy with family
- Intimacy with friends
- Anonymity
- Isolation

Scope of the Study

This study has the following specific scope:

1. Students in the private college (Kolej Laila Taib).

2. School of Architecture only.

3. 3-year Diploma in Architecture programme.

4. East Malaysia context (Sibu, Sarawak).

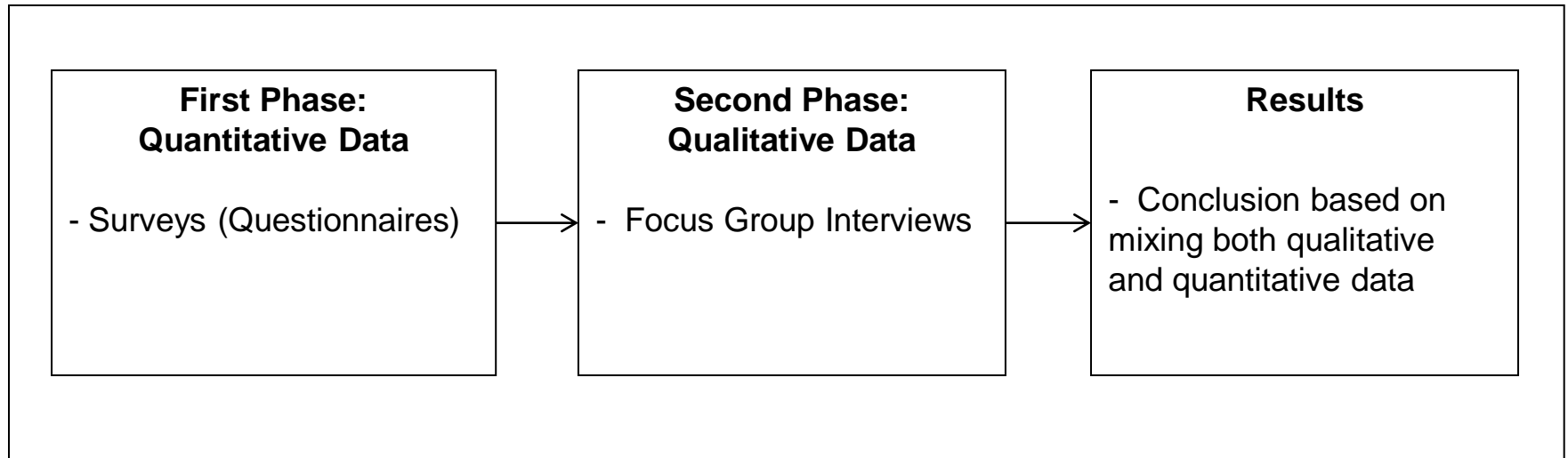This study has the following limitation:

1. The findings of this study might not be generalized to other population except architecture students.

2. Measuring only the students' perception without considering the perception from the perspective of educators.

3. Employs the cross-sectional design that will only measure students' perception score once throughout their study (no a longitudinal design).

Significance of Study

1. This study is significant in adding a new body of knowledge regarding students' perceptions on design for architecture design studio in Malaysia context.

2. The findings would provide designers a clear design direction about relationship between personality and issues related to privacy, personal space, territories, and crowding issues in architecture design studio.

3. Designers able to make conscious design decisions that are more meaningful to users based on well researched data and findings.
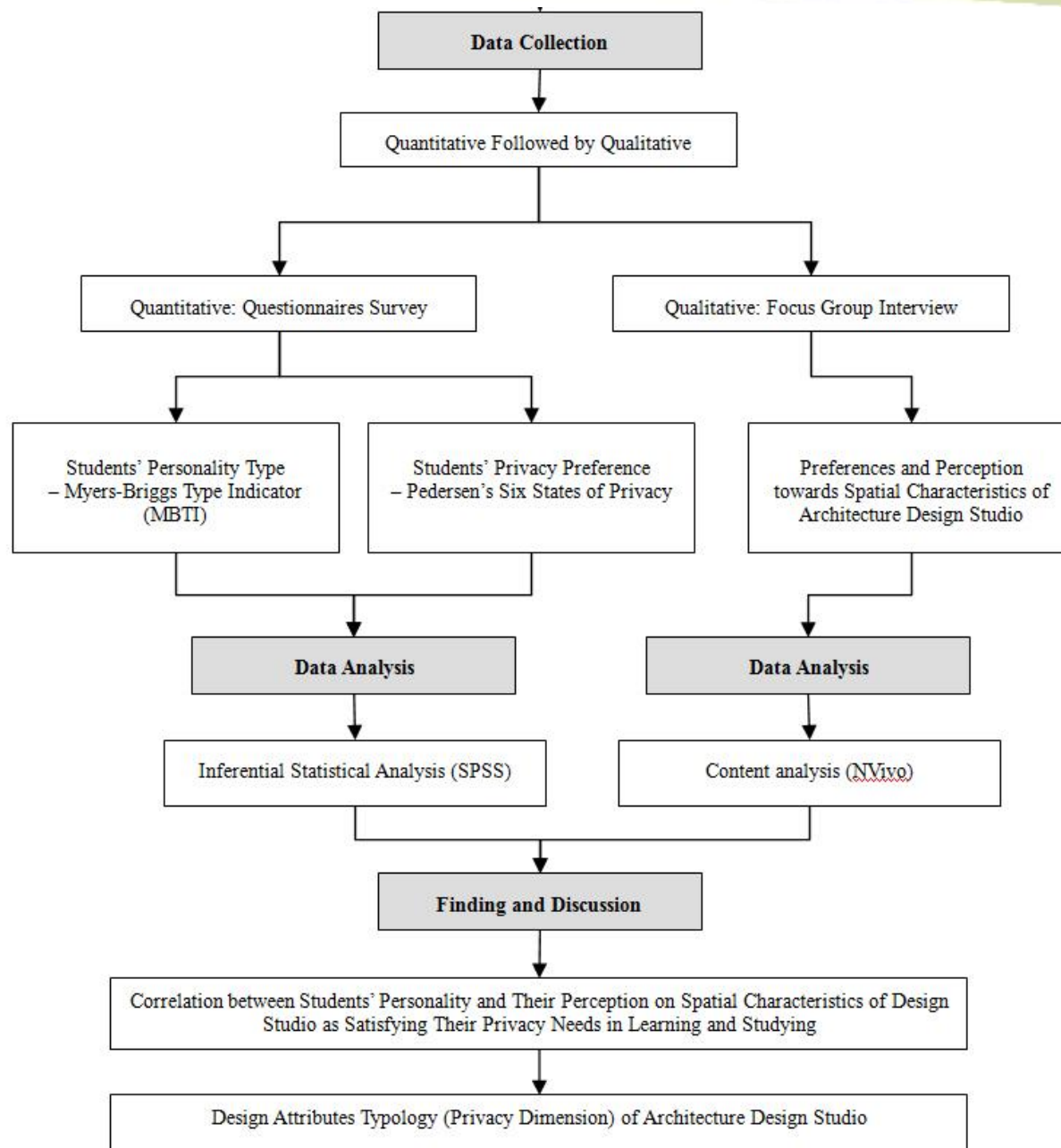
Research Method

Data Collection

Quantitative Followed by Qualitative

Quantitative: Questionnaires Survey

Qualitative: Focus Group Interview

Students' Personality Type
– Myers-Briggs Type Indicator (MBTI)

Students' Privacy Preference
– Pedersen's Six States of Privacy

Preferences and Perception towards Spatial Characteristics of Architecture Design Studio

Data Analysis

Data Analysis

Inferential Statistical Analysis (SPSS)

Content analysis (NVivo)

Finding and Discussion

Correlation between Students' Personality and Their Perception on Spatial Characteristics of Design Studio as Satisfying Their Privacy Needs in Learning and Studying

Design Attributes Typology (Privacy Dimension) of Architecture Design Studio

Anticipated Findings

This study will reveal the following findings:

1. The physical environmental factors of architecture design studio that play a significant role in influencing architecture students' study and learning activities.

2. The dominant characteristics of architecture students based on Myers-Briggs personality types.

3. Architecture students' perception on the design affordance of Architecture Design Studio in supporting their learning and study activities. Such perception shall disclose design preferences related to Pedersen's six states of privacy as well other issues like personal space, territories, and crowding.

Research Schedule

No.	Stages of Study	Year 1		Year 2		Year 3		Year 4	
		Sem 1	Sem 2	Sem 1	Sem 2	Sem 1	Sem 2	Sem 1	Sem 2
1	Proposal		▓						
2	Literature review	▓	▓	▓	▓	▓	▓	▓	
3	Problem statement, Aim, Objective formulation	▓	▓						
4	Methodology			▓	▓				
5	Pilot study			▓					
6	Data collection			▓	▓	▓			
7	Data input and analysis					▓	▓		
8	Findings						▓	▓	
9	Writing						▓	▓	
10	Submission and Viva								▓
11	Publication			*	**	**	***		

*   Journal Paper (Scopus)

**   Conference Paper

*** ISI Paper

Thank You