CHAPTER I
INTRODUCTION

1.1 Background of the Study

Architectural studios are at the heart of the architectural learning process in the major city schools of architecture where students are taught how to design spaces based on the analysis they have made of the locations, their function, and the aesthetic side (Mutaqi, 2018). A design studio is where the culture of diverse individualistic characters and dynamic creativity is developed and practical pedagogies are implemented (Abdullah et al., 2011). Over the years, the design studio has been the focal point of architectural education, and traditionally, it has involved a small group of students supervised by a studio master and an instructor or facilitator (Kurt, 2009). The fundamental subject for every architectural student is the design subject of an architectural school and it is a distinct educational process that distinguishes architectural faculty from other professional faculties, and design subject, which frequently becomes the most important subject on the syllabus, can also be viewed as employing open-ended and iterative design ideas that involve multiple critiques and evaluations (Zairul, 2018). The programs are written with concerns for theoretical and professional training in mind, without regard for how a particular problem may arise for some students, and only favor the privileged ones. Design educators can use teaching methods to create a semester-long course syllabus that not only provides a comprehensive approach to the design process but is also in line with national standards for student workload (A. M. Soliman, 2017). Thus, practical learning in architectural studios in higher institutions specifically needs to be revised and challenged to match the competency of the actual industry available in the market. The impact on spaces, budgets, student funding, and job opportunities inhibit the effect on studio learning and teaching, as do changes in students' demographics and characteristics, as well as teaching and learning technologies, objectives, and attitudes (Vowles et al., 2012). The values listed are the preparation needed by the students to accommodate their skills

before entering the working world and therefore making them adaptive to the requirements set by the companies where they will be working. On the professional side, architects must be able to take an active role in providing the communities with a sustainable environment aside from possessing values trained during their school and college time (Lubis et al., 2018).

The requirements set by the institutions may be beyond the capabilities of some students with limited resources, facilities, competency of teachers, and the lack of thorough studies through the effectiveness of the programs, which later will contribute to overburden and lack of motivation amongst them. Connecting with the outside world aided in the stimulation of self-motivated actions, the promotion of a sense of belonging and ownership, and the facilitation of lifelong learning which also took students out of their comfort zone and put them in a more complex environment where they could embrace risk and uncertainty with the right support and guidance (Rodriguez et al., 2018). Educators in institutions with experience in the industry, management, and construction of the built environment discover alternatives and innovative methods of delivering lessons to the students, by knotting collaboration of their professional practices with the pedagogy of their classes and performing eccentric partnerships covering the disciplines and beyond the classroom (Pelsmakers et al., 2020). The utmost contribution an institution can offer to its students is to ensure their graduates are offered self-awareness and the ability to assimilate in whatever situation they adapt themselves to throughout their learning period (Utaberta, Hassanpour, Surat, et al., 2012). In preparation for the industry, competency-based learning gravitated towards the products of their training and skill sets, where graduates are motivated to take a step in the path that provides them with opportunities to bear reproducible skill sets to inspire them with measurable products (Evans et al., 2015). Realizing high-quality education "even when under pressure" necessitates the collaboration of teachers and students; with their efforts, anything is possible (Komarzyńska-Świeściak et al., 2021).

Architecture graduates globally are prepared with practical training and professional theories deliverance through their studio time, despite the practical methods conveyed to them. These methods may become the platform where the students' benchmarks are set. Architectural studios and technic consultancies such as engineering are reconstructing themselves to adapt to the facilities provided by the institutions but the comfort zone they adapt to is changing continuously regarding the professional demand (Masdéu & Fuses, 2017). Based on a study conducted in architecture schools in Nigeria, the students acknowledge their environment does influence their academic achievements, related to their participation in studies and their support system, conduciveness, and effectiveness of their learning nature (Oluwatayo et al., 2015). Institutions in Portugal directed their focus on observing schools with laboratories or studios and studied the patterns designed with the by-product of space functions as pedagogical tools in producing an environment for educational activities and found out that the renovated laboratories' conditions are widely debatable as they contribute drastically to the student's performance (Veloso & Marques, 2017). Another survey was posted to the students of the College of Architecture, University of Dammam (UD) in Saudi Arabia to investigate the culture in the design studio and how well the students communicate with their surroundings would affect the production of their projects and performance and the survey resulted in both negative and positive, where the positive side would abide by the program installed but the negative result talks about the design studio as an environment that contributes to the student's lack of creativity (Sidawi, 2012).

Practical learning is executed by doing assignments or tasks and is based on real-life projects and in this case, referring to the architecture studio implementing the practical learning through the studio projects briefs. For this study, multiple variables were taken as core strategies to investigate the effectiveness of practical learning in architecture school in comparison to the professional industry and act as a benchmark for the student's competency level as follows:

1) Course Curriculum

Students' performance is a measure of learning accomplishment that is often reflected in their grades, and a major method of assessment for architecture students is the design jury from professional bodies or the industry, which is frequently because the design is a major course taken that consumes the majority of the students' lecture hours (Oluwatayo et al., 2015). The course curriculum has to be aligned with the expected standard in the industry, especially courses that introduce the students to the real working environment and the professionals.

2) Studio and Training (Internship) Hours

Architecture students will engage mostly in their studio hour as it is the main design course and the complex project briefs provided in architecture schools vary along their degree years which progressively build soft skills such as time management and critical thinking among the students. Although character built-ups are developed, toleration is still needed in providing the students with alternatives to accomplish the project briefs below the time constraints. On the other hand, an intern architect, also identified as an architectural intern, is a professional working in the industry of architecture in preparation for registration or accrediting as an architect (Mutaqi, 2018). Interns are given a period ranging from 3 to 6 months of internship in the industry, but the time allocated for the training and design studio is still questionable in bridging them with the sufficient competent skill set and productivity.

3) Architectural Educators

Effective training relies heavily on pedagogical dynamism, which entails being willing to alter one's teaching approach in response to the context (and cohort) at hand, as well as any challenge that may emerge as a result of that context and to acquire the competencies required to practice pedagogical dynamism, current educators can take advantage of having access to a knowledge base that is larger than their own (McLaughlan & Chatterjee, 2020).

4) Facilities within Studio

The architecture of the studio shapes the nature of the work produced by students, implying that the physical and spatial ambiance of the studio acts in interactional regard

to the making process (Corazzo, 2019). Spaces and the ambiance within the studio affect the performance of the students along with affecting the psychological interaction or social interaction among the students, their peers, and educators. The studio can serve as a place for explorations where a culture of critical collaboration contextualizes the concept of failure (Vowles et al., 2012). The interaction within the architecture studio contributes to the build-up of characters and instills soft skills in the students which later shape the studio culture.

However, studies conducted by (Oluwatayo et al., 2015) and (Sidawi, 2012) display a clear picture of how a studio affects the student's performance thus leading them astray from the competencies set by the schools as well as the requirements demanded by the professional industry. The focus is primarily weighted on the spaces designed to accommodate the students demographically but do not accommodate their needs and comfort where they are forced to adapt to the environment despite the changes in times to fit into the real working world requirements. Moreover, the weightage is put on the spaces physically to accommodate a certain number of students but does not go thoroughly into the programs, the workforce, and the surrounding studio environment that the students attend. The studios available in the industry are different from the studios available in the institutions, and the comparison between these two subjects is crucially important as it becomes one of the factors in bringing up the student's characteristics and attitude. The analysis discussed is still far ahead in providing students with such facilities, but the institutions are still obligated to ensure the students are on the right track not only by curriculum and programs but as well as their character and values.

As a developing nation, Malaysia's construction industry is rapidly evolving due to technological advancements and increased access to architectural knowledge. This necessitates a revamp of architectural education to better prepare graduates for the industry. However, many graduates currently lack teamwork, collaboration, and technology skills, making them less competent in practical aspects thus, research is crucial to ensure a workforce equipped with the required technology and practical skills, preventing industry shortages (Noor, 2018.). The research is conducted based on

data collected from architectural firms and an architectural school based in Malaysia. This paper highlighted the concern about the competency level of the students that is not updated in terms of practical learning and does not correspond to the industry's needs, especially in technical and practical aspects. Thus, to analyze the challenges and deficiencies encountered by students in the context of their practical learning. This analysis will encompass various factors, including the course curriculum, studio and internship hour, architectural educator, and studio facilities. The overarching goal is to identify and address the disparities between students' learning experiences and the industry's expectations, ultimately bridging this gap.

1.2 Research Problem Formulation

Formulations of the problem in this research are:

1) What is the students' feedback regarding the distinctions between practical learning in the industry and the architectural studio?
2) What is the feedback of the industry towards the university based on the comparison made on practical learning adapted in industry and architectural studio?
3) What is the response of industry and students toward practical learning in architectural studios?

1.3 Research Objectives

1) To study the students' feedback regarding the distinctions between practical learning in the industry and the architectural studio
2) To determine the feedback of the industry towards the university based on the comparison made on practical learning adapted in industry and architectural studio
3) To investigate the response of industry and students towards practical learning in architectural studios

1.4 Research Contribution

The present paper makes significant contributions by attempting to fill multiple gaps. The research is expected to assist multiple parties, both theoretically and practically. In terms of theoretical advantages, adding insight and comprehension regarding the quality of practical learning implemented in a higher institution based on

the standpoint of the students of architecture studio in higher institution, the architectural educators of the institution, and the industry involved with the higher institution by collaborating through various projects.

Theoretically as well as practically, this study may contribute in the aspects of (1) giving insight to the higher institution on providing better curriculum to the students along with upgrading their facilities, competency of workforces and establishing progressive partnership with the industry, (2) assisting the industry as future employers in managing significant qualities required by the their firms, especially in the skill sets required through practical works, (3) to assign a clear vision to the architectural educators on the required values in practical learning and simultaneously implement the improved studio learning methods gradually, (4) provide guidance for the students to equip themselves with various skills especially furnishing themselves with qualities that induce their competencies and employability in the labor market, and lastly, (5) the findings from this study are hoped to be useful guides for the future writers and researchers on securing similar variables and concern as to this current study, distinctly in the architecture fields or architectural education.