

EXAMINING PROFESSIONAL COMPETENCIES FOR INTERIOR DESIGN STUDENTS AT AHLIA UNIVERSITY – BAHRAIN

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ABSTRACT

Generally, the economic crisis in the world and the increasing number of graduates in all academic fields created challenges to employability. In this context, this research sheds light on the knowledge and skills the interior design graduates of Ahlia University (AU) have which sought by design firms in Bahrain. According to the last survey by the Professional Relations Office at Ahlia University for the interior design graduates shows that only 51.86% of the graduates were employed (44.44% in interior design jobs) which emphasize that employers are dissatisfied with the competencies of the interior design graduates. Generally, identifying these data allows universities reviewing their interior design curricula to meet the expected competencies in the market both locally and globally. Interviewing some of the employers in the interior design profession shows that the hiring criteria for graduates depend heavily on the graduates' skills, knowledge, and technology. Also, interior design alumni' feedback on Ahlia University regarding the curriculum will determine the knowledge areas and skills required by interior and architecture firms. As a result, a random sample of twenty-five (25) employers were interviewed and a questionnaire was mailed to a sample of 125 interior design students graduating from the Ahlia University in Bahrain between the years 2012 to 2017 to check their knowledge and design skills. Findings rigorously revealed a clear understanding of how to promote the professional competencies for the interior design graduates for Bahrain market. On the other hand, alumni agreed that they are less prepared in specific areas such as project budgets and schedules, project supervision, and principles of sustainability. Reviewing different literature in interior design and architecture education show that there is no study about the preferred alumni competencies by employers, thus this research is essential for the interior design department at Ahlia University, the alumni, and the industry.

Keywords: Interior design, alumni, knowledge, competencies, graduates, employers, employability, Bahrain.

1.0 INTRODUCTION

"Competency is the individual's demonstrated capacity to perform, i.e. the possession of knowledge, skills and personal characteristics needed, to satisfy the special demands or requirements of a particular situation" [1.pp.1].

As with many other professions, interior design is developing gradually and become more multidisciplinary since the beginning of the twentieth century due to economic pressures, rapid growth in information, and a new appearance of new types of businesses and clients [2-4]. Also, the new building materials and technologies represented by advanced computer software such as AutoCAD, Sketch up, 3DMax, and lastly the invention of Building Information Modeling (BIM) influence the interior design profession. Therefore, graduates equipped with these new knowledge and skills is the responsibility of the higher education institutions as a condition for entry into the profession. In addition, the high competition in job market force employers seeks to hire skilled graduates who are competitive and efficient rather than employing an inexperienced graduate that costs them time and effort in training them [5,6]. The quality of interior design programs in higher education institutions are measured by the guidelines set by the Council for Interior Design Accreditation (CIDA), these guidelines also evolved over time to keep pace with the technological advancement [7]. Arguably, the main goal of CIDA is to have qualified interior designers to enter the profession [8]. Therefore, interior design schools' main challenge is to develop curricula that predict the future needs of the profession, enable ongoing adaptability to comply with an ever-changing world, and prepare students to become successful designer, able to conceive innovative solutions both locally and globally [9].

1.2 Research Significance

The aim of this research is to examine whether interior design graduates from Ahlia University have the knowledge and skill complying with the employer's expectations and the new technological advancement to enter the profession. This research will provide the interior design students with the expected knowledge and skills make them both locally and globally competitive graduates through developing the curriculum that adapted with the new technologies.

1.3 Research Question

In the kingdom of Bahrain, there are four programs focusing on interior design: the Interior Design Department at the Ahlia University (AU), the Kingdom University (KU), the Applied Science University (ASU), and Gulf University (GU). These interior design departments in Bahrain play a pivotal role in providing interior design instructors and practitioners in the national market. When the curricula, lesson plans and course contents are examined in these

universities little differences are noticeable. Therefore, this research will focus on the interior design graduates from Ahlia University.

Thus, the following questions were developed:

- What aspects of interior design curricula in Ahlia University have proven to be the most valuable to graduates in the Bahraini market?
- What aspects should educators provide interior design students in making them successful in the industry?

2.0 LITERATURE REVIEW

“Today’s forward-thinking interior design schools are evolving to ensure (that) graduates come armed with a knowledge base that encompasses the entire practice of design, including marketing, management, financial and communication skills” [8,pp.5].

Different educators, practitioners, and graduates in interior design stated that interior design education continues to evolve as knowledge is dynamic, as stated by [10] “It’s no longer enough to leave school with drawing and drafting skills, architectural and design knowledge, business and interpersonal skills—you need the expertise to function in a high-tech workplace while incorporating humanistic sensibilities.” Accordingly not only design education should respond to industry changes, but also educators should modify their teaching way based on changes in the learner [11]. For example, building information modeling (BIM) is gaining momentum in interior design and in other disciplines; also clients raised their expectations of what they are going to get such as three-dimensional models.

2.1 Historical Background

Interior design as a profession emerged in the late 1800s from decoration when Elsie DeWolfe is considered the first interior decorator for the design of the Colony Club in New York City [8]. Prior this period people depend on the expertise of architects and skilled craftsmen for interior decoration. Nowadays, interior design like many professions has a career path contains education. After 1904, different universities in United States started to offer courses in interior decoration such as the New York School of Applied and Fine Arts. The interior decoration in that period was described by Massey “*Decorators are chiefly responsible for selecting suitable textiles, floor: and walls: coverings, furniture, lighting and an overall color: scheme for rooms which may already contain some of these elements. The interior decorator is rarely responsible for structural alterations which are the preserve of the architect*” [8, pp.13]. Interior design emerges after the massive destruction resulted from World War II accompanied by a new manufacturing techniques and innovative construction methods [13, 14]. Interior design as a new term differs from interior decoration, where interior design includes both art and science of people’s behavior. This disagreement required qualifications for practice the profession. In 1974, interior designers who want to practice the profession have to sit for a common examination set by the National Council for Interior

Design Qualification [15]. In 1970, the Foundation for Interior Design Education and Research (FIDER) later known as CIDA) was established to put the requirements for quality in interior design education [8]. Over the years, building codes, computers and technology, an aging population, considering people with disabilities in the design, and sustainability in improving the interior environment were introduced which have altered the way in which interior design is practiced [12].

2.2 Professional Competencies Concept

Competency is defined as skills, knowledge and attitudes graduates have to be effective in profession such as aptitude skills and knowledge, administrative competencies, supervisory competencies, and assessing risks and decision-making [1]. Accordingly, interior designer is someone who has knowledge and skills with education and incorporates creative thinking, technology to improve the interior building environment for the safety and well-being of its occupants and client's needs are satisfied. Today, the profession of interior design is complicated and not limiting to choose colors and tiles, but extend to include communication, business, and management [8, 16]. Hence, master these coordination competencies require capable interior design graduates have the following skills: communication skill, research skill, analysis and problem solving, and ability to work well in a team [1, 4, 5, 17]. Indeed, for the construction industry to continue and flourish, skills and competencies of the professionals need to keep developing to meet current and future needs of their client [6]. Different literatures indicate that identifying the right competencies desired by employers for graduates will help curriculum developers and educators where to focus to improve graduate employability and reduce the gap between the industry and graduates [5]. Accordingly, different universities embedded different employability skills in their curriculum to enhance the applicants' potential for success in the recruitment process [18]. Moreover, a survey conducted in 2004 on graduates of the College of Design at Iowa State University recommended modification in the curriculum such as presentation skills, critical thinking, problem solving, human behavior and work ethics [4]. In addition, the findings of the study by Tarver (2013) show that graduates need improvement in several areas in the curricula such the use of software, budgeting, working drawing & specification documents, and collaborate with other professionals such as architects and engineers.

Generally, it is a common knowledge in Bahrain that, designs by foreign companies have truthfully been deemed very efficient and better than their local counterparts among several clients. Therefore, graduates encounter difficulties in finding a job as it is clear from the survey done for the interior design graduates in Ahlia University and the employers who accepted Ahlia University students for internships. The reasons are for the lack of competencies the interior design students have and the high standard quality the foreign companies have comparing to local ones. Thus, providing interior design students with the knowledge and skills is essential not only for allowing them to work with the national and global companies, but also creating new job opportunities.

2.3 Interior Design Education Standards

The rapid growth in knowledge and skills required a quality of higher education institutions and graduates with skills and knowledge to participate successfully in the national and international marketplace. In addition, changes in construction industry and technological

advances make the higher education institutions facing a challenge to modify their curricula to bridge the gap between education and practice. Therefore, the Council for Interior Design Accreditation (CIDA) seeks to bridge this gap and assure that students are receiving a quality education at the highest level through their coordinating with educators, design professionals, and industry representatives. The result of this coordination is establishing sixteen (16) standards for accrediting interior design programs that should be included in program curricula see Appendix1 [19]. These standards, which revised due to different changes in the profession, are accepted in the whole world [8].

2.4 Interior Design Education at Ahlia University (AU)

The Interior Design program is four year (4) program has been offered since the 2003-2004 academic year. This program has routinely updated to match curricula offered by leading undergraduate programs in interior design. It prepares students for careers as interior designers and interior architects as well as in cognate fields like 3D designers. Additionally, this program remained unmodified until 2012 when it was strengthened by the inclusion of two new courses like the research methods course and ethics course. The second modification was in 2015 with the addition of internship course to the curriculum [20]. In addition, there are no criteria to admit a student in interior design program such as Aptitude Test at Ahlia University except of English and Math test.

Nowadays, most of the higher education institutions in Bahrain are subject to Quality Assurance review. Additionally, for any program to get confidence it must be accredited by an international organization. Unfortunately, the only design program outside North America accredited by CIDA in the Middle East is Virginia Commonwealth University (VCU) in Qatar.

2.5 The Internship Role

Formal education is no longer sufficient to provide future business opportunities. Hence, academic and practicum training must cooperate to provide qualified and competent graduates who are trained in real life business and adapts to the challenges emerge in the working environment [18]. Finally, through practicum training students can check their competencies with the expectations of the industry.

3.0 RESEARCH METHODS

In order to evaluate the educational programs of interior design and to understand the difficulties many graduates still experience in practicing the profession to have competency to become a professional interior designer. This will help to provide guidance to educators and graduates. Therefore, the starting point of this research is to identify the gap of knowledge and skills between the interior design graduates in Bahrain and the employers' needs and expectation, in addition, the deficiencies in the interior design curricula in relation to the international standard.

The study was conducted using interior designers who engaged in the business of interior design throughout Bahrain. These designers were selected depending on their work experience, gender, citizenship who resides in Bahrain, who has a work experience and information about what topics are new and important to the profession of interior design, through their design practices. These designers were selected to answer the research

questions mentioned above. Data collection used is a combination of questionnaire and telephone interviews. Questionnaires were mailed to invited participants as the first part of the study. Subsequently, telephone interviews were conducted as the second part of this study. A letter of introduction to the study and invitation to (25) senior professional interior designers obtained from telephone directories and Bahrain Engineering Syndicate (BES) including: interior design offices, Architectural Engineering companies, and contracting companies. The intent was to explore the general needs of business practitioners. Approximately sixty-five percent (65%) were male (16) and thirty-five percent (35%) female (9) reflecting the ratio of males and females in the interior design profession. The questionnaire was mailed to a sample of 125 interior design students graduating from Ahlia University in Bahrain between the years 2012 to 2017 to measure their knowledge level followed with reminders to encourage the return of their surveys.

4.0 FINDINGS AND DISCUSSION

A total of 106 interior design alumni participated in the survey. The criteria to select participants in this survey are recent interior design undergraduate and first professional graduate students (from the last five years, 2012 - 2017). Additionally, all the survey participants have remained anonymous and selected from the alumni list provided by the Professional Relations Office at Ahlia University.

- **Q.1: Gender**

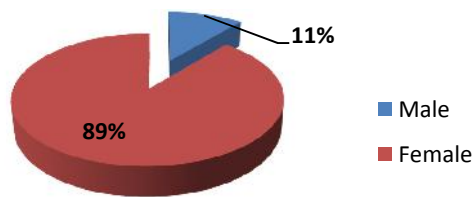


Figure 1. Gender percentage

- **Q.2: Age**

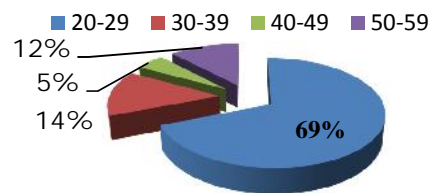


Figure 2. Age Group

- **Q.3: Number of years practicing interior design**

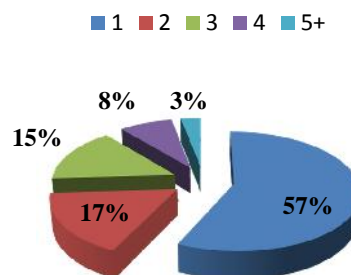







Figure 3. Years Practicing

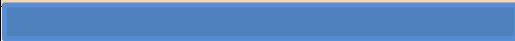






- **Q.4: What computer aided design programs and presentation software training were included in your design degree curriculum?**

Table 1. Computer Programs and Software Training

| Answer | | % |
|-----------|--|-------|
| AutoCAD |  | 100 % |
| 3D Max |  | 87% |
| Photoshop |  | 38% |
| Sketch up |  | 12% |
| ArchiCad | | 0% |
| Revit |  | 4% |

- **Q.5: What computer aided design programs do you use in professional practice?**

Table 2. Computer Programs Used in Professional Practice

| Answer | | % |
|-----------------|--|------|
| AutoCAD |  | 85 % |
| 3D Studio Max |  | 91% |
| Photoshop |  | 81% |
| Sketch up |  | 88% |
| ArchiCad |  | 46% |
| Revit |  | 96% |
| Other (Specify) |  | 34% |

- **Additional Computer Programs Used in Professional Practice**

Table 3: Additional Computer Programs Used in Professional Practice

| Other (Specify) |
|-------------------------|
| Micro Station |
| Illustrator |
| PowerPoint |
| Vector works Architect. |
| Rhino3D |
| Autodesk Homestyler |

- **Q.6: What is your Employment type?**

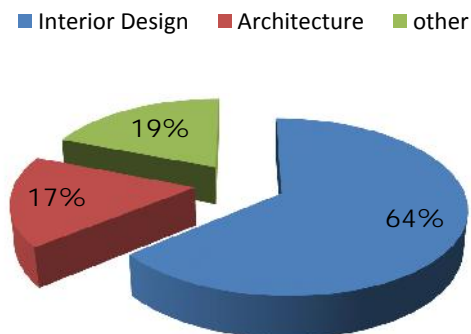


Figure 4. Employment Type

- **Q.7: What has been your practical experience in interior design or related areas?**

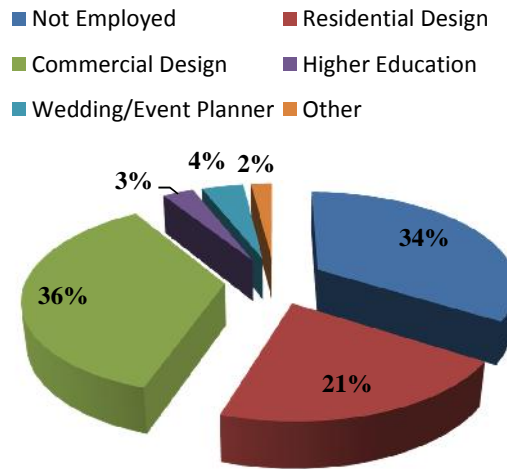


Figure 5. Professional Practice Experience.

- **Q.8: If you are not working in interior design, then in which field you are engaged?**

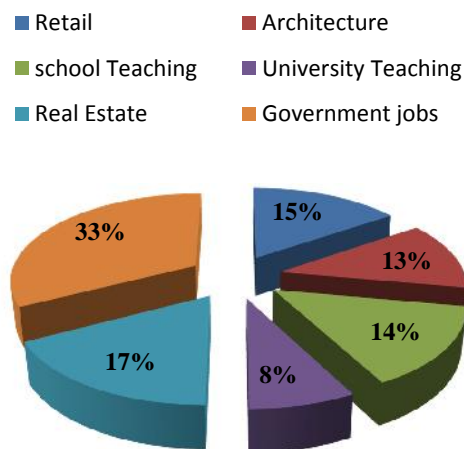


Figure 6. Alternative Fields of Work.

- **Q.9: Did your degree program require an internship?**

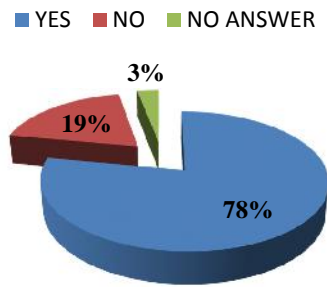


Figure 7. Internship Requirement.

- **Q.10: Did you participate in an internship?**

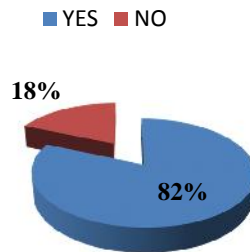


Figure 8. Internship Participation

- **Q.11: Do think that internship improves your competency and prepare you for the profession?**

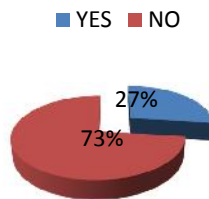













Figure 9. Internship Leading to Job Offer

- **Q.12: Select ONLY the top five knowledge categories that have proven to be the most valuable to your success in professional practice.**

Table 4. Top Five Most Valuable Knowledge Categories.

| Answer | | % |
|---|---|------|
| Create space plans & design concepts |  | 56 % |
| Selection of appropriate colors, materials & finishes |  | 52% |
| Research & analyze client goals & requirements (programming) |  | 48% |
| Producing space plans |  | 48% |
| Producing of 2D & 3D design concept |  | 36% |
| Coordinate with other design discipline |  | 30% |
| Preparation of construction documents |  | 21% |
| Include environmental & sustainability principles into designs. |  | 13% |
| Preparation of project budgets. |  | 7% |
| Preparation of project schedules |  | 4% |
| Site Supervision |  | 1% |

- **Q.13: Are there skills that you believe should have been further emphasized in your interior design education that would positively contribute to your early professional development?**

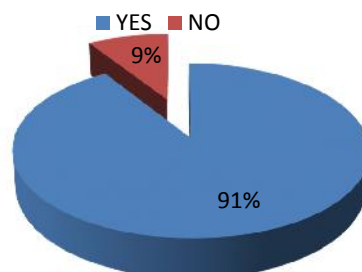


Figure 10. Graduate's Suggest of Skills in the Curricula

- **Q.14: If there were skills you wish were emphasized more, what would you recommend be further emphasized?**

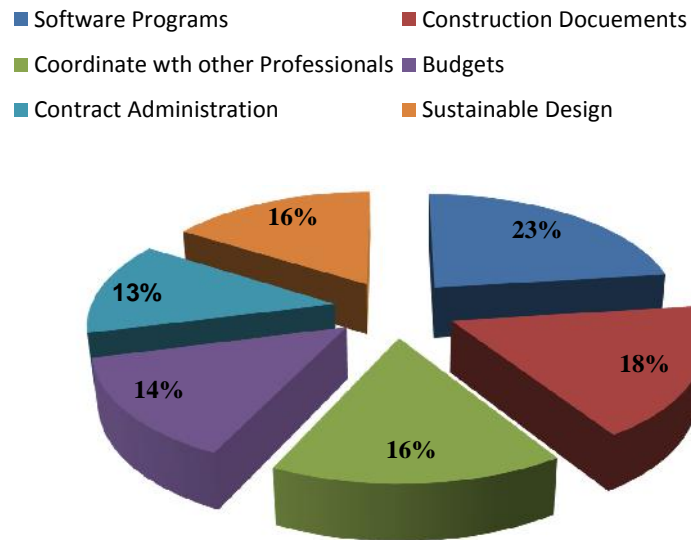


Figure 11. Highest Rated Skills to Further Emphasize.

- **Q.15: Is professional practice different from what you expected it to be?**

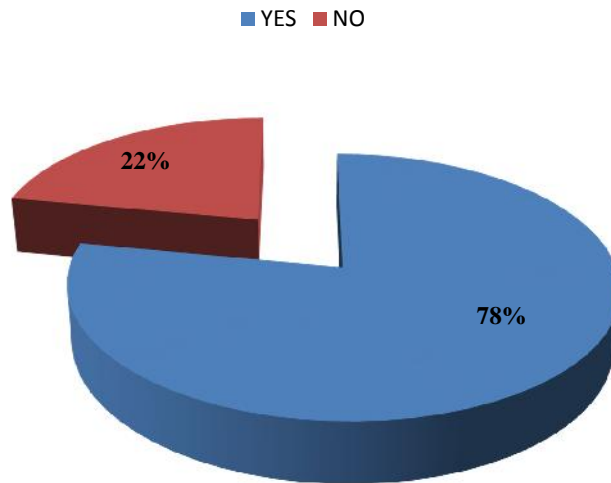


Figure 12. Professional Practice Expectations

- **Q.16: Why you are entering the interior design education**

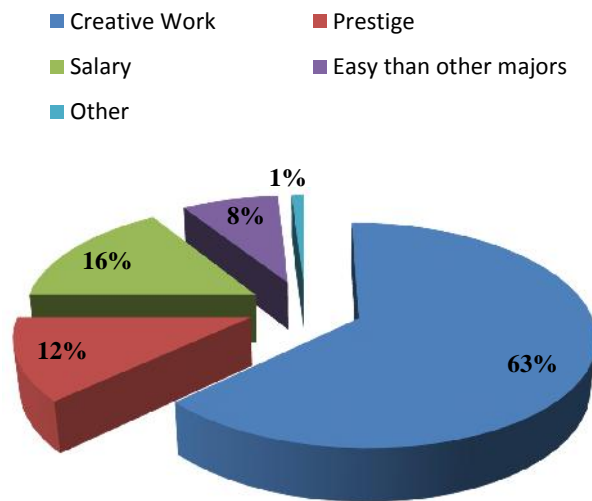


Figure 13. The Reason for Selecting Interior Design Education

This study examined interior design graduates' competencies at Ahlia University in Bahrain who graduated between 2012 and 2017. The data collected from such survey will assist universities, educators and design practitioners in better understanding the continuing changes in professional practice and to improve curriculum. The goal of this study was to find out if recent interior design graduates felt that they were prepared for their initial entry-level interior design position.

Of the 125 interior designers who took the online survey, Eighty-nine percent of the sample was females and 11 percent were males. Survey results revealed that 64 percent (64%) stated that they were working for an interior design firm, followed by 17 percent (17%) who had indicated that they were working in an architectural firm. It is evident that the impact of today's economic realities of flourishing construction in Bahrain encourages students to enroll in interior design education. Seventy nine percent of students stated that they have chosen interior design as a creative profession. It is worth noting that 73% indicated that internships can provide students with real-world perspective and insight into professional practice. The top five knowledge categories and/or skills identified are (See Table 4):

- 1- Create space plans & design concepts
- 2- Selection of appropriate colors, materials & finishes
- 3- Research & analyze client goals & requirements (programming)
- 4- Producing space plans
- 5- Producing of 2D & 3D design concept

Findings from the twenty five (25) telephone interviews with employers provided insight into the following knowledge and skills for interior design graduates:

- Computer software and technical skills were one of the primary skill sets most often mentioned as being an imperative skill to have.
- Critical thinking skills and effective communication skills are highly desirable abilities for recent graduates to possess.
- Employers interviewed ensured that graduates design knowledge was below the expectations, especially in the following areas: sustainable design; universal design; Indoor Air Quality; Ergonomics. Those design knowledge is desired by both the employers in interior design companies and the CIDA standards [7].
- Design should stress on social issues such as design for disability (handicap, blind, autism), graying population design, and green technologies.

It is worth noting, that many interior design programs have added Revit to the curriculum in the last two years such as Ahlia University (AU) and Kingdom University (KU), which could mean some of these graduates may not have had the opportunity to take such a class before graduation.

It is also clear from the interview; employers also recommended that further emphasis should be placed on the curriculum such as budgets, construction documents, and project management. Also, the majority of employers agreed that hiring criteria based on the portfolio and secondarily on education. This research shows that a majority of students participated in an internship (73%) feel more prepared for professional practice than those who did not.

5.0 RECOMMENDATIONS

The author believes from the information he got from this research that the Bahraini universities need to do the followings:

- Emphasize on the internship role in improving graduates competencies.
- Educators must emphasize more on software program in the curricula like Revit, 3D Studio Max and Sketch up.
- New knowledge subjects such as sustainability/green design and universal design.
- The communication between interior design departments in Bahrain must be strengthened. In addition, there should be regular meetings and coordination between these departments and a panel of professionals in interior design and architecture to develop an interior design curriculum taking into consideration CIDA standards and the required competencies in the market.
- The department of interior design must admit students based on Special Aptitude Test and Ahlia University Placement Exam to assure the students' quality.

6.0 CONCLUSION

The aim of this research is to enhance graduates' competencies in Bahrain. Today, accreditation to interior design programs in Bahrain is crucial as these programs will be recognized nationally and internationally, in addition to improve the quality of education. In addition, curriculum must be developed in compliance with global and local standards.

This research addresses the findings as they relate to answering the research questions:

Q.1: What aspects of interior design curricula in Bahrain universities have proven to be the most valuable to graduates in the Bahraini market?

Knowledge and skills are valuable aspects as graduates feel most prepared upon graduation as Table (4) illustrates the full responses to question (9) about the most valued knowledge and skills in professional practice in descending order.

Q.2: What aspects should educators provide interior design students in making them successful in the industry?

Findings from the survey show that interior design graduates indicated that there are areas in the curriculum that need to be enhanced. Figure (11) illustrates the six categories most often suggested by recent grads. Specifically, the findings from the survey indicated that 23% of respondents were more emphasis on software programs. The specific software programs recommended include: Revit, Photoshop, Macro Station, Illustrator, 3D Studio Max and Sketch Up. The second knowledge area suggested for further emphasis was construction documents at 18%. Coordination with other professionals and sustainable design were suggested by 16% of respondents, followed by budgets (14%) and contract administration (13%). Telephone interviews support these findings and shed further light on areas that should be further emphasized in interior design education to improve graduates' competency. Regarding telephone interview for employers, every one of the twenty-five employers interviewed felt that software knowledge and skills are necessary for professional success and suggested that the software should also use in construction documents. They added that budgets are a primary component of the project in the design development and programming phases and should be further emphasized in curricula. Most of the employers stated that graduates must have good communication skills both verbally and in written form. Findings also indicate that 73% of the graduates who had participated in an internship felt more prepared for professional practice than those who did not see Figure (9).

It should be recognized that universities can develop graduate competencies through industry-based learning, and internships.

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Appendix I: CIDA Standards

The professional standards set forth by the Council for Interior Design Accreditation (CIDA) are used to evaluate interior design programs that prepare students for entry-level interior design practice and position them for future professional growth.

- **Standard 1.** Mission, Goals, and Curriculum The interior design program has a mission statement that describes the scope and purpose of the program. Program goals are derived from the mission statement and the curriculum is structured to achieve these goals.
- **Standard 2.** Global Perspective for Design: Entry-level interior designers have a global view and weigh design decisions within the parameters of ecological, socio-economic, and cultural contexts.
- **Standard 3.** Human-centered Design: The work of interior designers is informed by knowledge of human factors and theories of human behavior related to the built environment.
- **Standard 4.** Design Process: Entry-level interior designers need to apply all aspects of the design process to creative problem solving. Design process enables designers to identify and explore complex problems and generate creative solutions that optimize the human experience within the interior environment.

- **Standard 5.** Collaboration: Entry-level interior designers engage in multi-disciplinary collaboration.
- **Standard 6.** Communication: Entry-level interior designers are effective communicators.
- **Standard 7.** Professionalism and Business Practice Entry-level interior designers use ethical and accepted standards of practice, are committed to professional development and the industry, and understand the value of their contribution to the built environment.
- **Standard 8.** History Entry-level interior designers apply knowledge of interiors, architecture, decorative arts, and art within a historical and cultural context.
- **Standard 9.** Space and Form Entry-level interior designers apply elements and principles of two—and three-dimensional design.
- **Standard 10.** Color Entry-level interior designers apply color principles and theories.
- **Standard 11.** Furniture, Fixtures, Equipment, and Finish Materials Entry-level interior designers select and specify furniture, fixtures, and equipment and finish materials in interior spaces.
- **Standard 12.** Environmental Systems Entry-level interior designers use the principles of lighting, acoustics, thermal comfort, and indoor air quality to enhance the health, safety, welfare, and performance of building occupants.
- **Standard 13.** Building Systems and Interior Construction Entry-level interior designers have knowledge of building systems and interior construction.
- **Standard 14.** Regulations and Guidelines Entry-level interior designers use laws, codes, standards, and guidelines that impact the design of interior spaces.
- **Standard 15.** Assessment and Accountability. The interior design program engages in systematic program assessment contributing to ongoing program improvement. Additionally, the program must provide clear, consistent, and reliable information about its mission and requirements to the public.
- **Standard 16.** Support and Resources. The interior design program must have a sufficient number of qualified faculty members, as well as adequate administrative support and resources, to achieve program goals.