

Analysis of the Architectural Design Talent Development Direction by Investigating the Employment Status of Architectural Design Graduates

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Abstract: Based on a comprehensive investigation of the employment status of architectural design graduates at a certain university, this paper analyzes the correctness of the talent development direction of architectural design in hopes of providing a valuable reference for further teaching reform and strengthening school-enterprise collaboration. The research results show that architectural design is the main choice of graduates, accounting for as high as 63%, and traditional architectural design skills continue to be in demand in the market. Employment in fields such as interior design, BIM design, and green architecture is also included. The distribution of job positions for graduates is mainly in the areas of scheme design assistants and construction drawing design, requiring software operation, communication, scheme design, and construction drawing skills. This paper also proposes talent development measures such as optimizing the curriculum, strengthening faculty construction, and deepening school-enterprise collaboration, in order to improve the quality of talent development and the competitiveness of graduates.

Keywords: Employment Investigation; Architectural Design; Talents Development; Teaching Reform

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1. Introduction

In the context of globalization, the development trend and talent demand of the architectural design industry are becoming increasingly diversified. As an important base for training architectural design talents, the talent development direction of vocational college architectural design majors not only directly affects individuals' career development, but also influences the progress of the entire industry and the sustainable development of society.

Architectural design, as a multidisciplinary field combining art and science, requires designers not only to possess solid professional knowledge but also innovation awareness, teamwork abilities, and technical skills. Despite extensive discussions on the talent development direction in recent years, there are evident research gaps in practical application. Architectural design has evolved beyond a single discipline, becoming a comprehensive field that necessitates integration across disciplines^[1]. This complexity has diversified talent

development, with the integration of climate change and sustainability into architectural design education crucial for addressing environmental challenges and building a sustainable future [2]. Regarding teaching methods, it has been proposed that practical activities enable students to master job skills, enhance innovation awareness, and improve problem-solving abilities [3,4]. Architectural design talents should possess diverse skills, including urban planning, environmental protection, and social innovation [5]. However, there is lack of empirical research combined with field investigations, limiting the practicality and depth of these theories. While research mainly focuses on theoretical discussions and innovative teaching methods, there is a shortage of tracking research on actual teaching effects and long-term student development. To better cultivate architectural design talents, it is imperative to strengthen interdisciplinary research cooperation, conduct in-depth investigations of actual teaching needs, and integrate practice to verify and improve existing educational theories and methods.

This will not only help improve the quality of architectural design education, but also provide a solid talent foundation for building a sustainable future. Therefore, this paper aims to explore the reform strategies of the talent development direction of architectural design majors in vocational colleges through employment investigation, in order to meet market demand and improve the employability of graduates.

2. Research method

2.1. Research purpose

This study aims to comprehensively assess the alignment between vocational college architectural design programs and industry demands. It involves gathering and analyzing data related to available jobs in the architectural design field, talent requirements, and employment outcomes of graduates. The goal is to provide reference for the reform of vocational college architectural design education, fostering a tighter connection between academic training and market needs. Additionally, this research aims to identify existing issues and shortcomings in talent development within these programs, propose specific strategies for improvement, enhance graduate employability, and contribute to the long-term growth of the architectural design industry.

2.2. Research subjects

Conducted through online questionnaires, the study gathered 716 valid responses. **Figures 1 and 2** reveal that the majority of participants graduated more than 8 years ago, boasting substantial work experience that enhances their precision in discerning talent demand trends. The data spanned various graduation stages, from 0 to 6 years, offering a nuanced understanding of employment demand and talent development trajectories. The gender distribution was 66% male and 34% female, showcasing diversity in both graduation years and gender, strengthening the accuracy of the collected data.



Figure1. Work experience for surveyed graduates

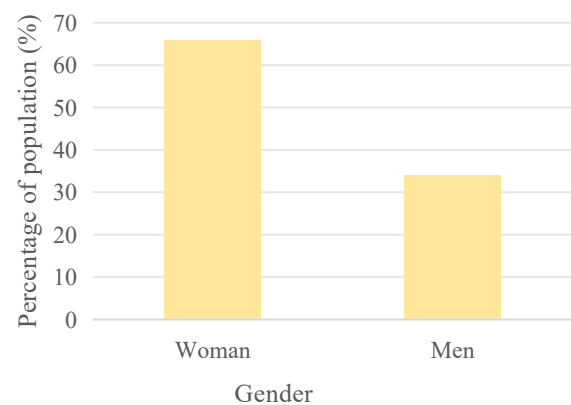


Figure2. Gender of surveyed graduates

3. Results and discussions

3.1. Employment opportunities of graduates

Figure 3 illustrates that 63% of graduates opted for architectural design employment, indicating sustained demand for traditional architectural roles. Interior design, BIM design, and green building design accounted for 6%, 3%, and 1%, respectively. While architectural design remains predominant, the presence of graduates in alternative fields suggests program efficacy. The lower proportions in emerging design areas may stem from limited student awareness. Schools can further promote these fields to broaden student understanding, encouraging interdisciplinary learning for comprehensive design skills. Strengthening architectural design talent development by fostering cross-disciplinary abilities, guiding diversified learning paths, and cultivating versatile thinking can enhance graduates' competitiveness in evolving markets.

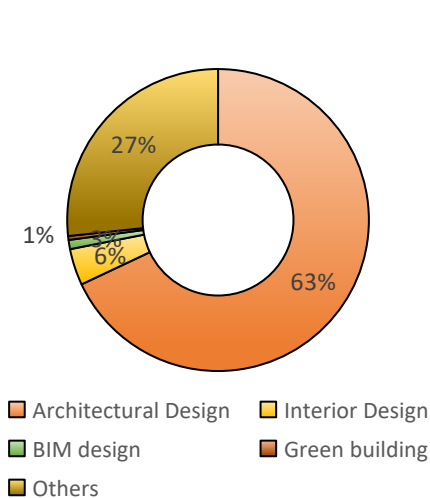


Figure 3. Distribution of employment opportunities

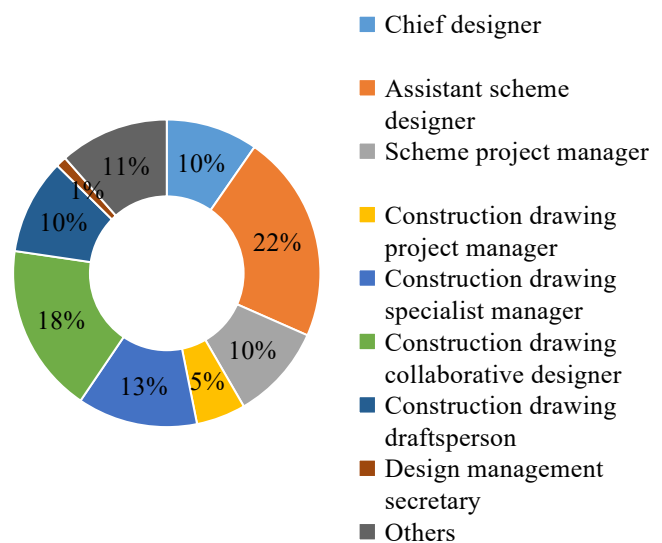


Figure 4. Job positions for architectural design graduates

3.2. Job positions of graduates

In Figure 4, scheme design assistants had the largest proportion at 22%, suggesting a strong foundation in drawing skills acquired through school learning and practice. Collaborative designers in construction drawing projects followed at 18%, with 13% being professionals overseeing these projects, and 10.07% as construction drawing draftsmen. Graduates play a substantial role in the construction drawing design phase of architectural projects.

Regarding employment positions in interior design, as shown in Figure 5, 18.64% of graduates assumed project leader roles, while 16.95% served as chief designers. Additionally, there were graduates in roles like construction drawing draftsmen and scheme design draftsmen. Some graduates diversified into other interior design positions, including client liaison, market research, and construction supervision.

Regarding job positions in BIM design, as shown in Figure 6, the majority, at 43%, worked as BIM draftsmen across disciplines. In architectural design, 29% served as BIM draftsmen, while 29% assumed project leader roles. This progression from architectural-focused BIM roles to broader professional capacities in BIM design reflects alignment with market demands.

In Figure 7, one-third of graduates excelled in comprehensive green building consulting and project management. This highlights the value of expanding and cultivating green building knowledge within the architectural design framework for enhanced employability.

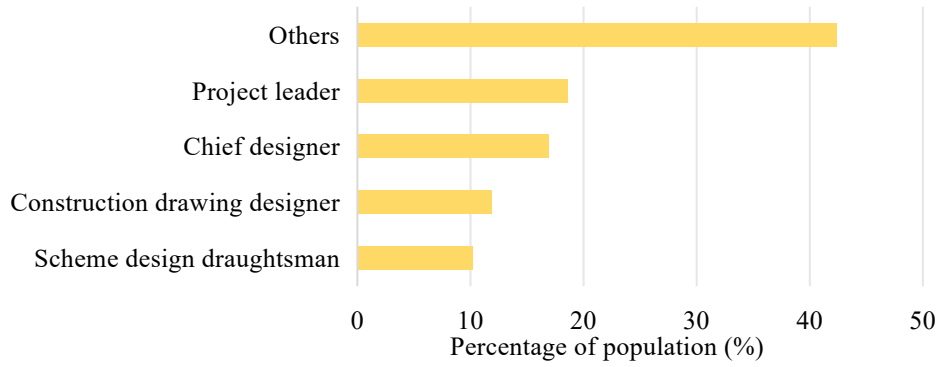


Figure 5. Employment positions of graduates in interior design

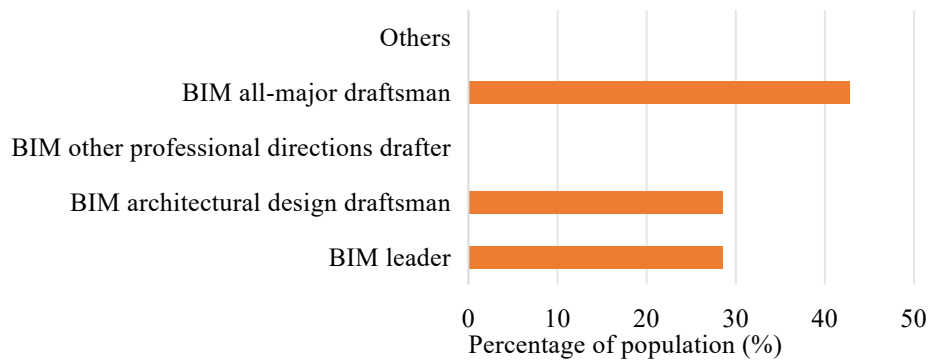


Figure 6. Employment positions of graduates in BIM design

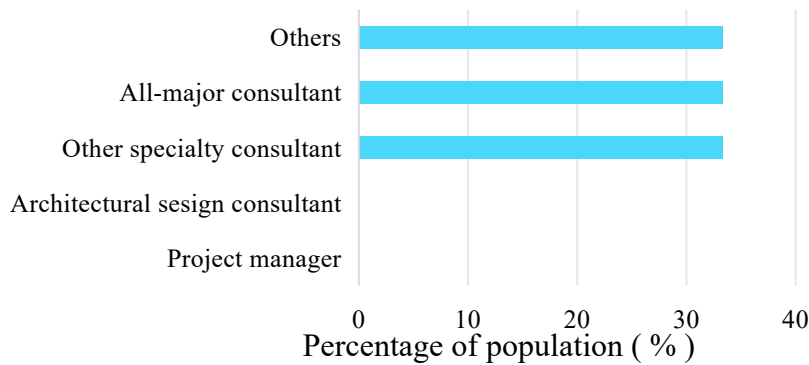


Figure 7. Employment positions of graduates in green design

3.3. Recommendations

Therefore, architectural design talent cultivation should focus on the following:

(1) Optimizing the curriculum

The curriculum structure should be adjusted according to market demands and industry development trends, and cutting-edge courses such as green building and BIM technology should be included to meet market demands. Besides, the practical lessons should be strengthened to improve students' practical skills and comprehensive qualities.

(2) Prioritizing fundamental scheme design

Fundamental scheme design should be emphasized in schools to nurture students' designing,

innovation, and teamwork skills. A comprehensive curriculum that includes architectural technology and knowledge should be formed to effectively equip the students to be architectural scheme assistants.

(3) Enhancing construction drawing skills

The cultivation of construction drawing design and drafting skills should be strengthened. Schools should focus on developing proficiency in computer-aided design drawing, construction drawing techniques, and knowledge of architectural structures. Qualities like patience and precision to improve drawing accuracy and efficiency should be emphasized.

(4) Deepening school-enterprise cooperation

The practical lessons should be well-connected to the job positions to offer students diverse job experiences, aligning them more effectively with future career positions.

4. Conclusion

In this study the employment preferences of vocational architectural design talents were investigated, the effectiveness of the current development approach was assessed, proposes targeted reforms were proposed. Architectural design remains the top choice for graduates, constituting 63% of selections, indicating sustained demand for traditional design. To align with market needs, talent development should not only emphasize traditional design but also enhance cross-disciplinary skills, encourage exploration of new design directions, and foster diversification thinking. In conclusion, educational institutions should bolster foundational teaching, enhance professional and cross-disciplinary skills, and consider improvements in curriculum structure, practical teaching, faculty development, and school-enterprise collaboration to boost the employability of graduates.

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Disclosure statement

The authors declare no conflict of interest.

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