

Exploration on Innovative Teaching Practice of the Course “Residential Space Design” Based on the Concept of Residential Business

Minghui Liao

Construction College, Guangdong Technology College, Zhaoqing, Guangdong, China

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Abstract: In the existing teaching of the course “Residential Space Design”, there is a lack of sufficient theoretical injection, especially the design concepts and methods positioned in the field of residential and commercial design, which makes it difficult to obtain in-depth teaching research. This has certain limitations on students' professional literacy and design abilities. This article studies the innovative teaching practice of the course “Residential Space Design” based on the concept of living and business. By analyzing the current teaching situation of residential space design courses and pointing out the existing teaching problems, this paper summarized the implementation strategies of teaching models. The innovative teaching practice of the course “Residential Space Design” based on the concept of housing and business is a promising teaching model. It focuses on human and nature, pays attention to practice and innovation and meets the requirements of modern Design education. By testing the teaching effectiveness of the “Residential Space Design” course based on the concept of residential and business, it was found that the teaching model based on the concept of residential and business can guide students to have a more comprehensive and in-depth understanding and mastery of residential space design, enhancing its innovation and practicality. Students were more satisfied with the teaching mode of the course “Residential Space Design” based on the concept of living and business; student satisfaction increased by approximately 6.4%, and the teaching effectiveness of the course also been improved. The innovative teaching practice of the course “Residential Space Design” based on the concept of housing and business provides new ideas and directions for the current Design education.

1. Introduction

The concept of residential business is the soul of design, and its introduction helps to cultivate students' comprehensive qualities and enhance their design abilities. At the same time, with the development of social economy and culture, people have a higher level of demand for living space, hoping to obtain a more comfortable, beautiful, practical and personalized living environment, which makes the concept of residential business more important and practical. Based on these backgrounds, it is very important to study the innovative teaching practice of the course

“Residential Space Design” based on the concept of living and business.

In various academic studies, residential space design, as an important research field, is receiving increasing attention. In response to various problems encountered in the creation of dominant spaces in new Chinese style residential areas, Wang and Jiang conducted research and summary on the design types and construction strategies of dominant spaces in new Chinese style residential areas through sorting and analyzing relevant theories and cases [1]. Taking Guangchang East Road in Nanchang City as an example, Qiang Liu analyzed the factors affecting people's stay on the street, the types of accommodation space and the existing problems, and put forward some design suggestions [2]. H Bukhari aimed to provide energy-saving suggestions for strictly cost controlled housing plans, allowing low-income groups to enjoy thermal comfort and the livability brought by cost saving technologies. It is recommended to invest in cost-effective and energy-saving technologies at the government level to solve the challenge of housing shortage once and for all [3]. From Academic Fan introduced the influence of shape factors on the total energy consumption of heating and cooling in residential buildings with passive solar spaces, and designed a residential building model with passive solar spaces and square and rectangular floors [4]. The above research has achieved good results. With the rapid development of the economy, residential space design has gradually become an essential part of people's lives. Residential space design is a highly comprehensive and practical field that involves multiple disciplinary fields and professional knowledge.

The integration of residential and commercial concepts holds a core position in design, playing an important role in improving students' design skills and comprehensive qualities. With the development and changes of social culture and economy, people's demand for residential space increasingly reflects their pursuit of personalization, practicality, aesthetics, and comfort. Therefore, mastering and applying residential commercial concepts in design has become increasingly important [5]. The traditional teaching method places too much emphasis on theoretical teaching and insufficient emphasis on practical teaching. In modern educational practice, it has been proven that teaching methods that combine theory and practice can better enhance students' comprehensive abilities. In response to this situation, it is clearly necessary to rethink and construct a teaching model and method that combines the concept of housing and business, and harmoniously develops theory and practice.

This article conducted innovative practical research on the teaching of the course “Residential Space Design” based on the concept of living and business. This not only helps to grasp the latest development trends of education and keep pace with the times, but also has a positive promoting effect on improving students' design literacy and practical ability. Moreover, this in-depth research also helps to promote the evolution of the design discipline and enrich its research content. Based on the concept of housing and business, the innovative practical research on the teaching of the course "Design of Residential Space" can not only deepen and optimize the existing Design education model from the theoretical and practical levels, and improve the quality and effect of education, but also further enhance the comprehensive quality and skills of students, playing a good social effect.

2. Teaching Innovation in the Course of Residential Space Design

2.1 Teaching Status of Residential Space Design Course

In architectural design, the design of residential spaces is an important aspect that reflects the level of architectural design [6-7]. However, the quality of residential space design is closely related to the design level of the designer, and is also closely related to the level of education received [8-9]. At present, the design of residential spaces in China is generally not optimistic, and there is a lot of

room for improvement, mainly concentrated in the following aspects.

2.1.1 Teaching Content that Highlights Disorder and Lacks a Holistic Framework

The course of residential space design includes many contents, such as basic design, spatial interface design, etc. In addition, it also requires learning structural drawings, understanding building materials, integrating overall space design, etc. [10-11]. However, currently most courses are taught locally, with students learning knowledge in a disorganized manner, making it difficult to achieve knowledge coherence on their own and apply it to practice. Secondly, insufficient integration of teaching can easily lead to skipping and repetition.

2.1.2 Unclear Course Positioning

The teaching of residential space design is usually divided into three parts, namely introductory basics, the relationship between residential and commercial design, and public space design [12-13]. The introductory foundation focuses on introducing knowledge, discussing concepts and teaching terminology in detail. Residential design elaborates on the commercial connection between residential design and commercial design. Business design is a summary of teaching, but the teaching direction of the entire course is not clear, and the teachers themselves do not have a clear teaching direction.

2.1.3 Single Teaching Format

At present, the teaching of residential space design often follows traditional teaching methods, with teachers as the main body to teach and impart knowledge and concepts to students [14-15]. Teaching starts with theory, then students design based on the theoretical knowledge learned in the classroom, and finally present the teaching content through design works. This teaching method has limited appeal to students, and they lack initiative in learning. In addition, their practical abilities are poor, and the design results are not ideal. During the teaching process, there is relatively little explanation of basic knowledge and practical operation of design. Students cannot understand the ways and methods of design and always stay on the drawing of sketches. After constructing the situation, for example, ignorance makes the design unable to be applied to actual situations, just talking on paper.

2.2 Construction of Innovative Practical Teaching Model for Residential Space Design Based on the Concept of Residential Business

2.2.1 Design Concept of Teaching Mode

The teaching method of the course “Residential Space Design” is based on the concept of life and business, and is an innovation of traditional teaching methods [16-17]. It combines practicality with design innovation, taking into account the needs of commercial activities, and emphasizing user experience and design effectiveness. The concept of life and business not only breaks through the boundaries of design, but also aims to cultivate residential design talents with innovative awareness and practical ability, so that they can fully integrate into commercial activities based on human development. Modern residential space is not only a place to live, but also a multi-functional space that integrates business, leisure, and entertainment. Based on this concept, the new teaching method aims to support interdisciplinary knowledge structures, emphasizing the combination of engineering practice and business concepts to meet the diverse design needs of contemporary residential spaces.

2.2.2 Implementation Strategy of Teaching Mode

Teaching based on the concept of living and business should focus on understanding and applying practical projects to students, and strengthen their understanding of the concept of living and business, thereby improving their design thinking and innovation awareness.

In terms of teaching content, the training integrates technical knowledge and business thinking into residential commercial concepts. The design content of public space, private space, and commercial space attempts to combine residential and commercial concepts. Through case analysis and case study, problems and challenges are highlighted and solutions are sought. In terms of teaching methods, it is necessary to actively encourage group collaboration and project-based learning. By encouraging students to practice design in a team format, and each design project being completed by a team, task sharing and collaboration, team spirit, and resource sharing can be achieved. Through real-life design projects, students can deepen their understanding and cultivate professional skills in practice.

Teaching evaluation emphasizes both the process and the results. The final evaluation result would also be influenced by the completion, innovation, and commercial value of the design work. The innovative teaching practice of the course 'Life Space Design' is based on the concepts of life and business, and runs through the entire teaching process. It focuses on cultivating students' self-learning and practical innovation abilities, laying a solid foundation in practical design theory and operation, and enabling them to play a more prominent role in future learning and career paths [18-19].

2.3 Reform of Teaching Methods and Content

2.3.1 Reform of Course Teaching Content

The traditional teaching method introduces a single concept to students, which can only reflect surface phenomena and cannot be effectively applied to students' work. Practical training should focus on residential design positions and practical work, with practical training as the center, and cultivate students' professional skills.

2.3.2 Fully Improving Students' Learning Initiative and Hands-on Ability

In the teaching process, teachers need to continuously improve their own level and create appropriate classroom situations based on teaching content, in order to continuously improve teaching effectiveness. Through the teaching of core courses, students can master the methods and skills of residential space design. Teaching can go beyond theoretical teaching and adopt modern multimedia technology to make the teaching process more vivid and interesting, thereby making students more interested in learning and actively participating in the learning process.

2.3.3 Curriculum Focus on Students' Design Thinking and Innovation Development

Residential space design, like other designs, is centered around innovation. The biggest rule of design work is to have an innovative flavor while maintaining the rationality of the work, which can attract a large audience and peers. These must constantly stimulate students' innovative thinking and encourage them to actively innovate. Under the new value orientation, the importance of innovative talents to society is self-evident. Only by introducing innovative elements into the design can a different sense of space be reflected.

3. Teaching Effectiveness of the Course “Residential Space Design” Based on the Concept of Residential and Commercial Development

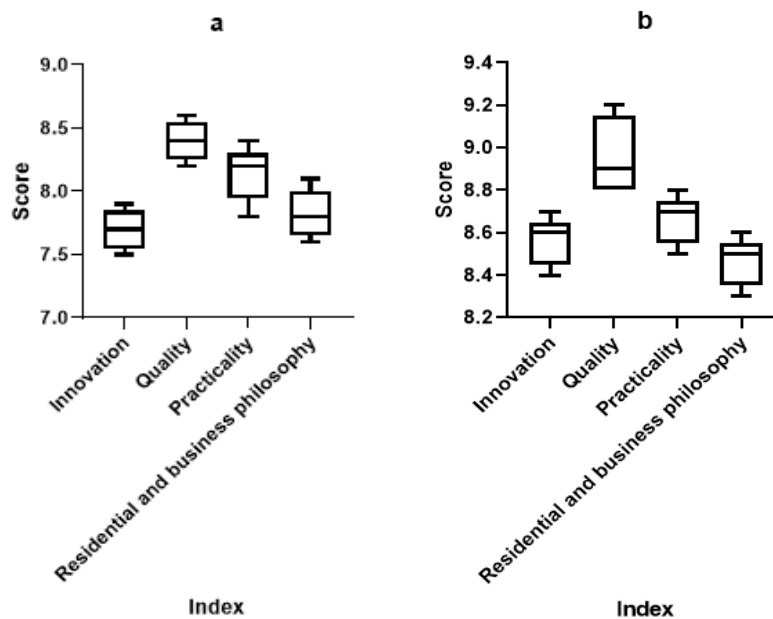
This article selected 10 junior students from a certain university who teach the course “Residential Space Design” and divided them into 2 groups. Students of group 1 used traditional teaching methods, while Students of group 2 used a teaching model based on the concept of living and business. The specific data of the two groups of students are shown in Table 1.

Table 1: Specific data of students

	Group 1		Group 2	
	Age	Gender	Age	Gender
1	21	Female	21	Male
2	20	Male	20	Female
3	21	Female	22	Female
4	20	Female	20	Male
5	22	Male	22	Male

3.1 Collection and Evaluation of Design Operations

During the one semester course, junior students took the course “Residential Space Design” and completed a residential space design assignment at the end of the semester. A rating was given by an industry expert on the innovation, quality, practicality, and residential business philosophy of the design, with a maximum score of 10 points. The specific results are shown in Figure 1.



- a. Collection and evaluation results of design assignments for group 1 students
- b. Collection and evaluation results of design assignments for group 2 students

Figure 1: Collection and evaluation of design tasks

Figure 1a shows the collection and evaluation results of homework designed by group 1 students, and Figure 1b shows the collection and evaluation results of homework designed by group 2 students. The average score for homework collection among group 1 students was about 8.1 points, while the average score for homework collection among group 2 students was about 8.7 points.

The teaching model based on the concept of living and business can guide students to have a more comprehensive and in-depth understanding and mastery of residential space design, enhancing its innovation and practicality.

3.2 Evaluation of Students' Satisfaction with the Teaching Methods of Residential and Business Philosophy

Two groups of students were evaluated for satisfaction with the teaching method, with a maximum evaluation score of 10 points. The test results are shown in Figure 2.

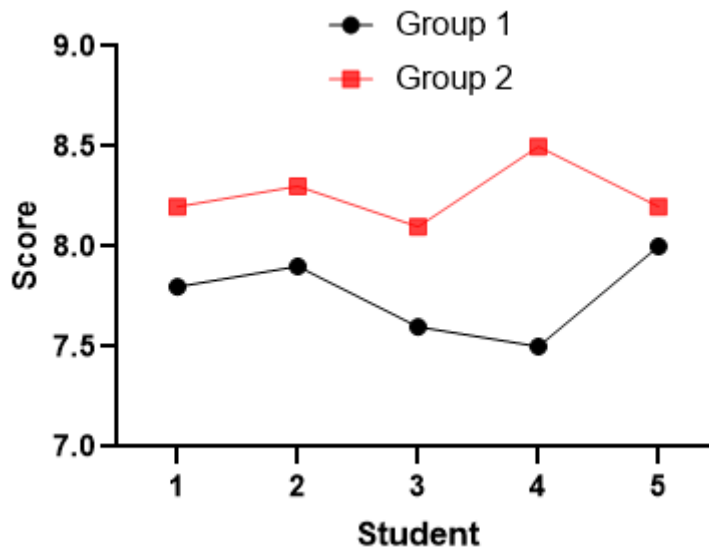


Figure 2: Student satisfaction test on the teaching method of residential and business philosophy

From Figure 2, it can be seen that the satisfaction score of group 1 students was between 7.5 and 8.0, with an average score of 7.76; the satisfaction score of group 2 students ranged from 8.1 to 8.5, with an average score of 8.26; student satisfaction increased by approximately 6.4%.

Students are more satisfied with the teaching mode of the course “Residential Space Design” based on the concept of living and business.

3.3 Teaching Effectiveness of the Course “Residential Space Design”

The teaching effectiveness of the course “Residential Space Design” was tested on two groups of students, and the course was tested through answering the test paper. The maximum score on the test paper was 100 points. The test results are shown in Figure 3.

From Figure 3, it can be seen that the average score of group 1 students was 79.6 points, while the average score of group 2 students was 91 points. Group 2 students had better grades.

The teaching model based on the concept of living and business can guide students to have a more comprehensive and in-depth understanding and mastery of residential space design.

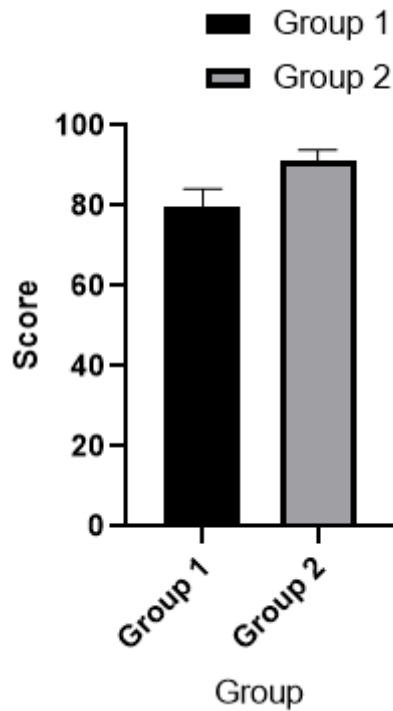


Figure 3: Teaching effectiveness of the course “Residential Space Design”

4. Conclusion

Traditional teaching methods are often limited to theoretical teaching and overlook the importance of practice. In modern teaching concepts, the teaching model that combines theory with practice is widely recognized and supported worldwide for its ability to comprehensively cultivate students' skills. This article focused on the innovative teaching practice of the course “Residential Space Design” based on the concept of living and business, and conducted a deep analysis and exploration of the teaching methods of residential space design. The teaching focus of the course should not only be on teaching design theory and application skills, but more importantly, it should guide students to understand and grasp business concepts, thereby realizing that design is not only to meet practical needs, but also to reflect individuality and aesthetics. The introduction of the concept of living and business not only enriches teaching content, but also cultivates students' sense of social responsibility.

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