Exploring the Consumer-Centred Pedagogical Model of Traditional Handicrafts in Jewellery Design Education

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Abstract:

This study examines the issues surrounding traditional handicrafts' integration into education, from preschool to higher education. It explores the importance of consumer influence on traditional handicrafts. It proposes a consumer-centred pedagogical model to meet consumers' needs and keep up with changing markets. Through literature reviews and analysis, this study aims to identify the problems in developing traditional handicrafts and suggest a teaching model encourage the innovative design of traditional handicrafts. A case study conducted at the Sichuan Fine Arts Institute is also an experimental teaching study. Students clarified market positioning and discovered potential customer groups. Then, students collected information through questionnaires to distil the design elements. Finally, students defined the design theme, and their works were the final output. The purpose is to explore and demonstrate the future sustainable development of traditional handicraft education. The teaching method emphasized the practical market experience of students and the innovative outcomes of traditional handicrafts. The didactic method has been tested in design education and proposes a consumer-centred sustainable design method of traditional handicrafts to provide new possibilities for design education models.

Keywords: Traditional handicrafts; design education; pedagogical model; consumer-centred

1. Introduction

The 21st century is a rapid technological advancement, with designers having even more complex and constantly changing responsibilities. In order to consistently adapt to popular culture, traditional handicrafts must evolve and adapt to the times [1]. The inability to innovate these handicrafts will decide whether they remain viable and can develop further. The problem of lack of talent is traditional handicrafts' biggest challenge regarding their development. As Zhu puts it, "the answer lies in the absence of an educational system for such arts and crafts"[2].

Higher education is essential for the training and cultivating skilled personnel for society. Design education is the source of national art reserve talent and the place to convey skills. Colleges and universities boast distinct advantages over other organisations regarding talents, technology, research and resources [3].

Nevertheless, there still needs to be a unified and standard teaching method. Many educators and academics have explored pedagogical approaches or models. Some approaches focus on training skills according to the market needs but are limited to a single professional level; some are based on practical projects but lack a scientific and comprehensive design; others suggest studio-based teaching models but fail to form a specific talent training model [4].

This study focuses on a consumer-oriented jewellery design pedagogical model, taking a five-week workshop with students in jewellery design. By studying the embroidery of handicrafts, which gives feedback from customers, we aim to investigate the innovative design of traditional handicrafts in jewellery design and its didactic value.

2. Relevant Studies

2.1. Traditional handicrafts in Innovation

In the 21st century, the transition from tourism consumption to cultural consumption constantly reflects people's demand for traditional culture in some way. Cultural heritage generally refers to the artefacts and processes kept and transmitted from one generation to the following [5]. The product is the concrete manifestation, while its making process is invisible. The making process of handicrafts cannot be displayed in the product, but the product's final form displays handicraft achievements. Hence, the product contains tangible and intangible cultural heritage, including culture, tradition, and knowledge. Meanwhile, the product is linked to the economy, involving the market and the consumer.

Some researchers claim handicrafts can be grouped into the local and elite consumer markets [6]. While Zhang and Diao [7] divided handicraft products into four categories based on the proportion of handmade products and the demand of the consumers:

(1) Bespoke Design (Handmade)

(2) Small Batch Production (Handmade in high proportion)

(3) Mass Production (Handmade in low proportion)

(4) Derivative or cultural and creative production (especially for young people, handmade is unnecessary).

Purchasing handicrafts can strengthen consumers' ties to local traditions and cultures [8]. The emergence of new markets, new technologies, and consumer terminal purchases in a

consumption-led environment have indirectly challenged the delineation and development of traditional handicrafts. The consumer is an inescapable influence factor [8,9,10].

A culture of throwaway consumption has emerged due to the commercialisation of handicrafts under the impact of globalisation and consumerism, as well as "effective production", which is entirely focused on "profit". The intangible cultural heritage will become a museum collection [11] unless it constantly is modified and rebuilt to meet the demands of modern society.

As a result of the current economic environment, designers may offer consumers brand-new handmade products and services. Simultaneously, designers may immerse customers in a certain ambience, making their goods more aesthetic and artistic [12].

2.2. Traditional Handicrafts in Design Education

University is a place for gathering higher-level intellectual and research-oriented talents [13] and a base for cultivating the next generation and passing on cultural heritage [14,15,16]. It is widely accepted that the university education system can be instrumental in transmitting intangible cultural heritage (ICH) [17]. Furthermore, education is vital for passing on traditional handicrafts and protecting and preserving them from extinction. As Norasingh and Southammavong suggested, education is essential to train the younger generation [18], training and to impart knowledge of market trends, product design, packaging, and market access to the youth [19]. Therefore, students can learn how to make handicrafts and create design concepts.

Many researchers have explored teaching methods for traditional handicrafts in jewellery design education. Pöllänen puts forward a didactic model based on craft as self-expression [20]. In comparison, Sweet introduces Design-Oriented Pedagogy (DOP), which focuses on a real-world design challenge and the production process, from idea/innovation to assessment [21]. Similarly, Pöllänen and UrdziņaDeruma suggest a Craft-Centered Design Pedagogy, which stresses the value of craft and combines digital fabrication methods with hand-working skills [22]. Li, Ho and Yang also provide sustainable design frameworks that integrate design thinking with traditional handicraft innovation [23]. Moreover, Ji, Tan and Hills suggest a Chinese handicraft learning mode based on WebAR technology [24].

To further develop design and knowledge creation in handicrafts, it is vital to consider the consumer, who is a crucial factor influencing both the market and innovation demand. This study proposes a pedagogical model that puts the consumer at the centre, considering the various aspects of handicrafts, such as techniques, materials, and history. This pedagogical model is intended to guide teachers to lead their students in producing innovative design

products, satisfying the modern demand for handicraft education and better meeting market needs.

3. Materials and Method

An experiment was conducted at the Sichuan Fine Arts Institute in 2021, aiming to cultivate culturally-competent university students who meet the current market needs and demands and explore sustainable design development for traditional handicrafts. The study lasted five weeks and focused on 29 fourth-year students majoring in Jewellery Design as these students had already completed courses related to jewellery, such as theoretical knowledge and practical operation techniques, and also a Jewellery Brand Design course to train them in market design.

For the experiment, the embroidery was chosen as the focus due to its rich traditional cultural values, educational and economic value, art elements, and embodiment of traditional Chinese handicrafts. Furthermore, the materials used for embroidery are easy to collect. Most importantly, since embroidery was excluded from the jewellery courses, it was equal for students to master this skill and create jewellery work. Throughout the experiment, different types of embroidery were chosen by students based on their interests and level of mastery.

3.1. Designing the Task

The pedagogical experiment was divided into five steps:

1. Brainstorm with the students to draw out their pre-existing knowledge of embroidery and provide them with a foundational understanding.

2. A short lecture provided an overview of embroidery fundamentals to fill in the student's knowledge base gaps.

3. The students were required to conduct market research by questionnaire to define the specific consumer base.

4. According to the questionnaire result, students needed to decide on the embroidery used and design elements.

5. The students were asked to complete a series of jewellery products by embroidery, and they were expected to innovate the embroidery in their works.

3.2. Design Process

Steps three and four followed the teaching model (Figure 1) to indicate students to research and design constantly.

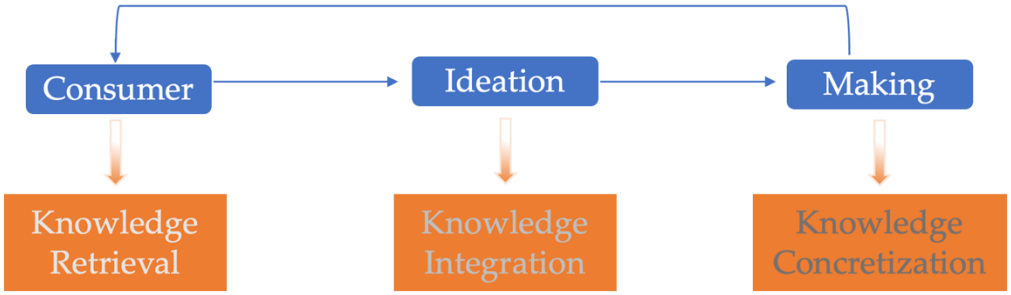

Figure 1. The Design Model of the Traditional Handicrafts

Source: Compiled by the research

The holistic design process begins with customer-centred design, a stage in which the teachers guide students to do firsthand research and gain information to prepare for the design. This stage aims to identify the design purpose, market demands, and design target. It can be achieved with the help of a mind map, questionnaire, interview, and field trips to collect feedback and design elements. It is also known as the Knowledge Retrieval stage.

In this stage, students were asked to do a mind map individually to figure out the group of people they would like to design for. Then, they had to design a questionnaire to get relevant information, such as perceptions, understandings, and preferences about the embroidery.

The second stage, developing ideas or innovation, involves endowing inner thoughts with symbolic form and concretising and recording them [34]. Knowledge retrieval from the last stage can help form associations and structure ideas for this stage.

To promote student innovation and creativity, teachers should suggest testing and development of materials and techniques that will support their students. Through the knowledge, experience, and skills that students have already acquired, they are able to lay the foundation for their problem-solving abilities [25]. Additionally, visualisation is essential to the design process, as it can help with problem-solving and processing large amounts of information [26] and can enhance both the aesthetic and functional qualities of a product [22], which can be supported and concretised with sketches, videos, writings, and images (as seen in Figures 2 and 3). This stage is known as Knowledge Integration.

Figure 2. Design ideas expression by sketching

Source: Compiled by the research

Figure 3. The sketches of the design idea in detail

Source: Compiled by the research

In the following stage, hands-on experimentation and exploration are the primary learning objectives, so teachers employ the trial-and-error method and on-site doubt resolution to facilitate instruction. At this stage, the teacher's most important role is acting as a "gatekeeper,"

being available to students to help them navigate any problems they may face with the techniques and providing answers to their questions to ensure the project's success.

To extract as much learning as possible from the practice, students must conduct experiments and prototypes, solve problems, evaluate solutions, and consider the possible outcomes [22]. They must also consider aesthetics, function, techniques, costs, materials, time consumption, and tools [27]. Documentation of all the necessary materials (Figure 4 and Figure 5) provides students with new skills and knowledge, allowing them to refine the technical and visual design of the product. The Knowledge Concretization stage allows the students to solidify their understanding and make their design a reality.

Figure 4. Testing process of skill

Source: Compiled by the research

Figure 5. Making process

Source: Compiled by the research

This model is an ongoing cycle: once the design is realized, the process begins again with user testing to collect feedback on the product's performance. This feedback is then used to modify the design in the ideation phase, creating a new prototype. The cycle continues until the product is ready to launch.

4. Result and Discussion

The questionnaire and the observation methods used in this study aim to determine and analyse the understanding of the model's design process and the students' problems in the teaching process.

4.1. Questionnaire survey

Two questionnaires were administered to 29 students between the ages of 20 and 24, with 7 males and 22 females, to identify their experiences and feedback regarding embroidery design and innovation. The first questionnaire, which was completed before the workshop, featured single-choice (Q1, Q2, Q8, Q10), multiple-choice (Q5), and Net Promoter Score (NPS) (Q3, Q4, Q6, Q7, Q9, Q11, Q12) questions. The second questionnaire, which was completed after the workshop, featured single-choice (Q2, Q3, Q4), multiple-choice (Q1), NPS (Q6, Q7, Q8), Likert's 5-point scale (Q5), and open-ended questions (Q9). Links to the questionnaires can be found on the following websites: https://www.wjx.cn/vj/me6NdcL.aspx and https://www.wjx.cn/vj/QJnFEg3.aspx.

Analysis of two questionnaire results reveals a shift in students' perceptions of embroidery and an evolution in the methods and mastery of traditional handicrafts to create innovative designs.

Before the workshop, a questionnaire was administered to students to assess their level of mastery in embroidery, their creativity level and comprehension of traditional handicrafts, and whether they had a personal design process.

A low understanding of traditional handicrafts among the students impacted their comprehension of jewel-very-making handicrafts. Thus, students generally found it difficult to innovate traditional handicrafts.

Only two students (6.9%) had experience with embroidery, but students needed a higher understanding of this craft. Moreover, 44.83% of students thought embroidery belonged to something other than jewellery-making handicrafts, which led to a general perception that embroidery is hard to innovate in jewellery design, with 13.79% of students feeling it was

challenging. Despite this, more than half of the students (51.72%) had their design method or process, but it needed to be tailored to the needs of traditional handicraft design.

During the design process, most students (89.66%) were able to consider the decorative aspects of embroidery to refine the design elements (62.07% of students), such as pattern and shape. They also considered the practicality of embroidery (68.97% of students).

72.41% of students considered the meaning of their work, with 31.03% of students positioning their work in the realm of cultural and creative production, while some opted for one-off pieces (24.14%) or small batch production (hand-made in small quantities) (20.69%). Surprisingly, no students wanted to position their work in bespoke design.

After the workshop, 13.79% of students were satisfied with the final output, and 41.38% were fairly satisfied. However, most students (44.83%) believed their work was passable. Students found that the difficulty of innovating traditional handicrafts had decreased. Overall, the teaching model was conducive to innovation, with 20.69% of students claiming it had a beneficial effect on their work. In addition, 13.79% of students had mastered or established their design process to aid and improve their future designs.

Through observation and conversation, most students still needed a more comprehensive understanding and vague perception of the design process, which is attributed to the lack of theory being put into practice, resulting in an incomplete comprehension of the purpose of the design process or method.

4.2. Observation

The observation was employed to evaluate the student's learning and identify problems with their design process during the workshop. Generally, students lacked consideration for consumer groups and were overwhelmed by the various consumer groups and criteria, like age, gender, and price. Most students argued that their designs were suitable for everyone, which gave them more creative freedom but also caused their designs to be less focused and challenging.

The mind map was utilised to explore consumer needs, aesthetics, acceptance of the price, and material preferences, which helped students gain a more thorough understanding of design elements and the positioning of their works. This step also served as the foundation for the questionnaire.

Students encountered difficulty while attempting to do divergent thinking in a consumer-centred manner during the workshop. They struggled to connect their designs' relevant words, images, and colours, impeding the progression to the following research step. To assist them, the teachers introduced the questionnaire method to facilitate identifying and distilling

specific design elements. Students failed to use it properly and found it challenging to set the appropriate questions. Furthermore, their comprehension of colour, shape, and form was vague; the colours listed for respondents were described vaguely as warm, cold, and pure instead of being more precise, such as coral, agate red, and bronze-red. Hence, visualisation was proposed as a better option than using vocabulary to describe the elements.

The embroidery posed the most problematic aspect for the students. They found it difficult to learn the skill, which took up much time. Also, they experienced difficulty presenting the embroidery's texture through drawing or sketching.

On the other hand, the embroidery was not included in the teaching plan. Universities tended to focus more on metalwork, such as stone setting and metal forging, which the students learned and mastered. However, they had difficulty applying them to design to produce something innovative. It reflected the issue of the articulation of university curricula. In addition, students conducted more research via multiple methods but failed to apply it to their designs, indicating the disconnect between research and praxis.

According to the student's final work, it is possible to group the theme, colour, stitch type, style, and wearable way (Figure 6 and Figure 7).

Figure 6. The embroidery design in Accessory Design

Source: Compiled by the research

Figure 7. The embroidery design in Jewellery Design

Source: Compiled by the research

The results of the observations and questionnaires conducted before, during, and after the workshop showed that :

1. The level of students' familiarity with the methods influenced the design outcome,

2. The unclear design goal resulted in difficulty with question sets for the questionnaire.

3. The students needed help expressing design vocabulary and their design-related knowledge base.

4. The students needed more practice understanding and applying the learning method to different situations. The problem is the gap between theoretical and practical courses, ultimately causing the students to lack comprehensive coverage of jewellery design for higher attainment.

5. The teaching model adopted during the workshop made traditional handicraft innovation less challenging. It also enabled students to apply various design methods to design positions and elements to complete the design. Furthermore, it assisted in consolidating or forming the students' design methods.

5. Conclusion

This research investigates the role of traditional handicrafts in modern jewellery design and how this can be combined with consumer-centred approaches to develop a designer's foundational research abilities. The students' works show that students successfully applied their knowledge of embroidery history and culture to their designs, innovating and creating unique and original pieces. This study proposes a pedagogical model to guide students to design, encouraging independent thinking, exploration and learning. This model is a tool to lead students to design rather than teach them and is especially beneficial for those who lack the motivation and ability to study independently.

This study demonstrates that innovative design is crucial in allowing traditional handicrafts to thrive and become a symbol of the new era. Design education is essential in cultivating design talent and allowing traditional handicrafts to be passed down to future generations.

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