

Research Article

Exploration and Practice on Teaching Method Reform in the Course of *Children's Wear Design*

Ruan Nuonan^{*}

Department of Fashion and Apparel Design, Zhejiang University of Finance & Economics Dongfang College, Hangzhou City, China

Abstract

Children's Wear Design is an important part of the fashion design course. As a special category in design, children's wear plays a significant role in the growth and future of children. This paper starts by analyzing the status quo and the problems to be solved in the course of *Children's Wear Design*, and then explores innovative teaching methods, teaching philosophies, and teaching objectives of the curriculum reform from three dimensions of teaching content, teaching structure, and teaching assessment. Thus, the analysis explores the new framework, new resources, and new perspectives of this course based on students' individuality and design subjectivity, and then puts forward the implementation methods and optimization strategies for curriculum reform practices. The aim of the paper is to provide an effective framework reference for the teaching reform and practice of design courses, and also an inspiration for the future practice and teaching reforms of fashion design courses.

Keywords

Children's Wear Design, Curriculum Reform, Teaching Structure, Teaching Assessment

1. Introduction

As children are an important guarantee for the sustainable development of society and cultural inheritance, children's clothing imperceptibly impacts children's physical and mental health. With the acceleration of urbanization and the advocacy of China's third-child birth policy, people's consumer demand for children's wear has seen a rapid growth, and the requirements for children's wear designers are increasingly higher. In the face of the growing demand for children's wear designer, how to cultivate outstanding designers has always been one of the hot issues of concern to related industries and enterprises. Due to China's late start in the children's wear design industry, *Children's Wear Design* courses have not yet been specially offered in many domestic colleges and universities. Existing

Children's Wear Design courses are often inherited in the way and method of women's wear design. In teaching structure and teaching content, they often ignore the physical and psychological character of children themselves, and take children's wear as a miniature of adult wear without the qualities that should characterize the design of children's wear. Due to insufficient training of professional children's wear designers, children's wear industry in China is facing a "two-empty" problem, that is, focus on manufacture and production, but lack of design and innovation which are the two most important links. Therefore, the teaching reform and research of *Children's Wear Design* courses are imminent.

^{*}Corresponding author: 229662236@qq.com (Ruan Nuonan)

Received: 21 January 2024; **Accepted:** 31 January 2024; **Published:** 21 February 2024



Copyright: © The Author(s), 2023. Published by Science Publishing Group. This is an **Open Access** article, distributed under the terms of the Creative Commons Attribution 4.0 License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

2. Teaching Status Quo and Problems

Children's Wear Design is one of the characteristic courses of fashion design major in colleges and universities. In recent years, children's wear industry in China is in urgent need of excellent children's wear designers who are highly required by the professionals. The course centers on the psychological discovery of children as a special group, emphasizes on the investigation of modern children's lifestyles and behavioral habits, and focuses on the introduction of modern fashion elements combined with the teaching of the course. This reform will enable students to have a systematic understanding of the knowledge and methods of children's wear design to meet the needs of society and the industry for children's wear design. However, the traditional children's wear courses have been derailed from the needs of the industry due to the late start of teaching, insufficient perception of children, and separation of the industry and education. These problems correspond to the keys and difficulties that the teaching reform intends to solve and breakthrough [1]. According to the analysis, the main problems to be solved in the teaching of *Children's Wear Design* courses are as follows:

2.1. The Shortage of Teaching Content

In China, the concept of "modern children's wear" was first introduced from the West. At the end of the 18th century in Europe, the term "modern children's wear" was created to refer to wearing by the 0-16-year-olds children from infancy to adulthood. In the late 19th and early 20th centuries, *Western Learning Spreading to the East* brought a modern form of Western culture, while the awareness of designing for children's wear was only gradually developed in China in the 1880s [2]. Generally, children's wear industry is market-driven and changing rapidly. Thus, it has high requirements for the knowledge and competence of children's wear designers. Due to the late start of children's wear design, the teaching content of traditional children's wear design is mostly a generalized teaching for all design categories, rarely combined with the special needs of the domestic children's wear consumers and changes in fashion trends to adjust the teaching content. There is a certain distance from the needs of the industry to the course. At present, most teaching contents lay emphasis on the theoretical discussion and lack specific practical tests, which inevitably lead to certain practical problems in actual operation, such as lagging education concepts and weak feasibility of cross-integration [3]. Concerning the diversified and changeable children's wear market environment and the diversified industrial needs, the teaching content of *Children's Wear Design* oriented by market application is urgent for improving and adjusting.

2.2. The Lack of Perception of Children's Wear Subject

Compared with adult wear, children's wear has distinctive age characteristics and subject particularity. Because of children's different body shapes and behavioral characteristics in different ages, these unique physiological development traits have become the basis and constraints for children's wear design. In the past, teachers often used traditional methods in their teaching process and imparted knowledge just as *women's wear design* course, and asked students to finish the relevant series of designs according to the requirements of women's wear design. Although the design homework may be visually beautiful at last, problems still exist. For example, the lack of perception of different age features of children's wear design subjects, and the deficiency of the consideration for safety, functionality, and practicality of children's wear. These problems have also led to the "adultization" of children's wear, and the adult style became fashionable for a time and very controversial [4]. Therefore, this paper will closely integrate the special needs of children at different stages to adjust and update the teaching.

2.3. The Deficiency of Market Experience and Practice of Children's Wear Design

Children's wear design is an applicable and practical course, which needs extensive design practice and application based on relevant theories of children's wear design. The insufficient design practice of school students and their lack of experience in market result in a low conversion rate of the applied results of traditional children's wear courses. Conservative *Children's Wear Design* teaching model tends to emphasize on theory, yet neglect practice, which is prone to the disconnect between theory and practice [5]. Usually, students paint children's wear artistically, pay attention to the artistic effect and formal beauty of the illustration, and treat children's wear as artistic work, while knowing little about children's wear structure and its market demand. For instance, the expression of the craftsmanship and details of children's wear is vague, and the renderings are too fanciful to practice, which are far from the requirements of children's wear companies and the industry. For all this, how to transform the course results into industrial value and reflect the cultural care in business value as well as the humanistic feelings in the social ecology [6], is also one of the problems to be solved by the teaching reform.

3. Methods of Teaching Reform

Based on the above problems, this paper starts with the teaching content, teaching structure, and teaching assessment, and then combines laws of children's physical and psychological development with the teaching experience and advanced methods of *Children's Wear Design* in foreign apparel

and textile institutions, trying to propose effective teaching approaches of the *Children's Wear Design* course. The methods are as follows:

3.1. Application-Oriented Teaching Content Design

The new teaching content of *Children's Wear Design* pays more attention to the applicability and practicality of children's wear design. It completes the flexible design system of the entire teaching content from "children's wear market research", "children's wear brand planning", "children's wear design expression", and finally back to "children's wear market verification", building a course and teaching content system consistent with industry standards [7]. In the teaching process, students are required to combine theory with practice by conducting a large number of on-site researches and market investigations after understanding the basic needs and brand conditions of Chinese and international children's wear market and reporting their researches in groups. In teaching positioning, the course highlights the differences in brand positioning and design strategy of children's wear in different regions, markets, and levels. According to the characteristics of age, safety, and functionality of *Children's Wear Design*, the teaching focuses on the display and interpretation of representative children's wear styles, craftsmanship, fabrics, and collocation, which increases students' capacity and width of children's wear knowledge structure, so that they can understand the teaching content and master design skills well. In teaching implementation, tasks are carried out in different projects and studio system. The teacher first introduces the selection, direction, and characteristics of different projects before project implantation. Students then choose their interested projects and create their design themes on the current market traits and social needs, which will promote the organic connect of design talent training and industry development. This will also achieve a sustainable application and commercial transformation of students' design works.

3.2. User-Centered Teaching Structure Design

"Human" is the subject and purpose of design. As a special category in wear design, children's wear is a key category for children to protect their bodies and know the world. Children's wear, worn by kids from birth, plays an important role in their aesthetic development and indirectly shapes their personalities. Given the importance and necessity of children's wear for the enlightenment of children's aesthetic ed-

ucation, this course prioritizes the psychological and behavioral qualities of children at different stages while following the features of wear disciplines. On one hand, it lays stress on the cultivation of students' empathy and altruistic thinking, guiding them to create in a way that extends themselves to others, integrating ergonomics, artistic craftsmanship and business thinking into serving the "human". This will improve their perception and empathy of children. On the other hand, it advocates that students should have the problem awareness and sensitivity of fashion so that they can discover problems and solve real issues while closely meeting user needs, and carry out functional innovation and artistic design exploration according to the needs of different users to form a pragmatic design awareness and concept, and link them to all aspects of life.

3.3. Value-Led Teaching Assessment System

The design education course in the New Era pursues the consistent integration of multi-dimensional competencies in standards, teaching, and assessment [8]. The reformed *Children's Wear Design* breaks the teacher-led teaching assessment model in traditional teaching, enhances the diverse interaction and communication between students, teachers, universities and enterprises. It adopts four-level teaching assessment model: Teacher Assessment, Tutor Assessment, Student-self Assessment, and Peer assessment. From the perspectives of theoretical, application, commercial, social, functional, aesthetic, and system value of design works, the course measures and assesses students' homework more completely and systematically, forming a value-led system that considers the assessment indicators of business and feelings (as shown in Table 1). The whole teaching assessment is not only based on the results as the standard, but more importantly, the creativity of the design and the value creation of the process, as well as whether the students have improved on their original foundation. At the same time, students can formulate project tasks and homework content according to the design positioning and targeting needs of brand projects through project implantation in the course. The completed homework will be selected by company, and the students will participate in the company's fashion show or exhibition and accept market verification and feedback directly. Enterprise tutors can also give direct modification suggestions and assessments through the effectiveness of students' assignments and the completion of project tasks, so that students can get effective and practical market feedback and better improve their skills from the course.

Table 1. Value-led assessment standard.

Assessment link	Basic assessment standard		Value measure standard	
Teacher valuation	A. Innovation level	B. All-round performance and completeness	C. Theoretical value and applied value	D. Artistic value and humanistic value
Tutor assessment	A. Commercial standard and market benefit	B. Cost control and feasibility	C. Business value and result	D. Social value and ecological value
Student-self assessment	A. Autonomy and innovation	B. Ability to find problems and solve problems	C. Functional value and aesthetic value	D. Realization of personal self-value
Peer assessment	A. Display and report	B. Awareness of teamwork and collaboration	C. Team member's satisfaction and creation of emotional value	D. Team contribution rate and system value

4. Characteristics of Teaching Reform

4.1. Optimize the Teaching Structure

Children's wear is not just a miniature of adult wear, but also covers a deeper cultural connotation. Therefore, the course structure design, apart from considering the features of children's physiological development, includes the study of interdisciplinary knowledge such as child psychology. This course is a multi-dimensional integration based on the traditional *Children's Wear Design* course structure. It introduces the penetration and learning of relevant knowledge from interdisciplinary knowledge such as child psychology, child development and behavior, ecology, and economics. At the same time, it combines the age traits of children's wear as the design subject, which enables students to have a comprehensive and systematic understanding of children's wear design while following the laws of children's growth and development.

Taking the infant's wear design teaching as an example, in child development, the children's body size ratio in infancy (0-1 year old) is characterized by a large head and a short neck. Their head-to-body ratio is about 1:4, the ratio of head circumference to bust close to 1:1, and the ratio of shoulder width to hipline close to 2:1. Infants sleep and sweat a lot, spending most of their time in bed or strollers. Therefore, their wear design asks for simplicity, centering on the front of the wear while avoiding excessive design and decoration on the back in order to ensure an undisturbed sleep for infants. Moreover, the spine of children during this period overgrows the limbs, their excretion is frequent, and the skin is delicate, so students need to consider the convenience of wearing and taking off when designing, and should leave sufficient margin in the neckline. From the perspective of children's color psychology, since the visual neural system of infants is not yet complete, students are required to use light, white, or soft colors in the color design of baby's wear to avoid the irritation of over-bright colors to the baby's visual neural system and

the damage of chemical dyes to the skin.

4.2. Integrate the Teaching Resources

The formation of characteristic education is often closely related to the local cultural and economic environment [9]. Based on the actual needs of the surrounding children's wear industry and related enterprises, this paper has developed course resources on the existing faculty conditions of the university. In the teaching process, the course fully considers the combination of industry and profession, and takes advantage of the geographical advantages of the university's proximity to Huzhou, "the capital of children's wear", Haining, "the capital of leather", and Tongxiang "the capital of knitting", all of which will optimize the teaching path. In teaching practice, different teaching forms including flipped classrooms [10], mobile classrooms, online-offline teaching [11], and the enterprise designer's participation in teaching give students opportunities to master the skills and methods of children's wear design in a more true, systematical, and comprehensive way. For example, while explaining children's wear fabric design, the teacher breaks the restrictions of the classroom and leads students to major children's wear and fabric markets in Hangzhou, Huzhou, and Keqiao for on-site visits and explanations, so that students can have a deeper understanding of the craftsmanship, fabrics, and market conditions of children's wear. While designing the series of renderings, the teacher implants competition training such as "China Fashion Children's Wear Design Competition", "Zhejiang College Students' Fashion & Accessory Creative Design Competition" and real enterprise projects, allowing students to design and practice according to the task features of different projects in a targeted and purposeful manner. The course focuses on the students' all-round and personality development [12], and cultivates their comprehensive application capabilities to adapt to the actual needs of new employing enterprises and the complex market employment environment in the future.

4.3. Expand the Teaching Thinking

The thinking was originally the process of generalization and the indirect response of the human brain to objective things with the help of language, which is based on perception and beyond the boundaries of perception [13]. When the design discipline has entered the interdisciplinary category, it is an opportunity to develop the design discipline given by history and the state [14]. The reformed *Children's Wear Design* focuses on the special field of children's wear design; meanwhile, it also integrates related disciplines and interdisciplinary staggered knowledge structures and thinking methods to enhance the course's innovation. The teacher inspires and guides their students according to students' different abilities, situations and personalities, encouraging students to open their minds and expand their thinking, rather than imposing the teacher's personal aesthetic concepts and thinking habits on students. Taking the teaching of the children's wear series design as an example, the teacher can allow students to find their creative themes based on fashion trends, starting from different fields such as humanity, history, philosophy, engineering, and economics, and develop design associations on their respective themes to extract colors, styles, patterns, craftsmanship, and details suitable for the current design context. Through the training in mind mapping, keywords refining, brand story interpretation, etc., the training of design thinking is used to drive the output of design results, so that students can better resonate and empathize with the children's wear design, enhance their brand narrative ability, and then create unique works. In this step, creative sparks of thinking collided between team members and teachers through communications and exchanges, and many interesting design ideas will also burst out.

5. Goals and Value of Teaching Reform

The *Children's Wear Design* aims to explore silhouette design, component design, decoration design, pattern design, color design, fabric design, and series design of children's wear, shifting the teaching goals from knowledge acquisition to ability development and interest fostering. It is committed to reshaping the learning-based course system, reforming teaching content [15], and carrying out a systematic teaching of the basic knowledge and skills of children's wear design, so that students can better master the basic concepts and design methods of children's wear. This course enhances students' application ability and market adaptability through the classification and learning of children's wear of different ages, improves design thinking and skills, and trains design talents that meet the enterprise's demand for the children's wear industry. The specific teaching goals are as follows:

- 1) Understand the brand situation and market consumption of children's wear, grasp the difference between children's wear design and other designs, and systematically master the basic requirements and design principles in

this field.

- 2) Master the body shape characteristics, physiological conditions, and psychological features of children's wear of different ages, and integrate safety and health into practicality to meet the requirements of children of different ages, so that children's wear design can achieve better functionality and practicality.
- 3) Understand and master the key parts, design laws, and application methods of children's wear, and be able to design according to children's physiological and behavioral characteristics; be able to grasp various style features and common functions of the children's wear component design, and master the design relationship between the parts of children's wear and the whole.
- 4) Understand and know the latest developments and cutting-edge information in children's wear design, and be able to learn from and summarize the design experience of previous designers, combine customer needs and self-advantages, condense a series of design products with personal style, and propose innovative ideas and methods for children's wear design.

6. Conclusions

As designers, we design not only for the present, but also for the future. As the weak link in the development of China's textile and fashion industry, the children's wear industry is very important to the whole fashion industry. This paper, taking the *Children's Wear Design* as the point of penetration, tries to propose the teaching reform methods, characteristics, and goals of the *Children's Wear Design* according to different age, safety, and functional features of the special clothing field—children's wear. With the help of relevant interdisciplinary knowledge such as child psychology, child development and behavior, and ecology, it combined the current new trends with creations, crafts of globalized and diverse fashion culture. It also explores innovative methods and practical paths of design courses to provide an effective reference framework and inspiration for future design course reform.

Funding

This work is supported by:

- 1) The Higher Education Teaching Reform Project of Zhejiang University of Finance & Economics Dongfang College "Exploration and Practice on Teaching Method Reform in the course of *Children's Wear Design* (Project No. 2016JK30);
- 2) The "14th Five-Year Plan" Teaching Reform Project of Undergraduate Universities in Zhejiang Province in 2022 "Research on the Teaching Reform in the course of *Children's Wear Design* from the Perspective of Oriental Aesthetics" (Project No. jg20220788).

Conflicts of Interest

The authors declare no conflicts of interest.

References

- [1] Chen Pu, Guo Hui, Zhen Jingyi. *Modern Children's Wear Design*. Shanghai: Donghua University Press; 2021, pp. 1.
- [2] Chen Lei, Jiang Wei, Meng Weijuan, Li Xuedong, Liu Zhuo. Building a Course and Teaching Content System Consistent with Professional Standards Based on the Background of Industry-education Integration. *PACKAGING ENGINEERING*. 2022, 43(S02), 98-103.
<https://doi.org/10.19554/j.cnki.1001-3563.2022.S2.023>
- [3] Gu Liwen, Ruan Yanwen, Li Jun. Design Thinking Curriculum Reform for Fashion Design Majors in the Context of New Liberal Arts. *ZHUANGSHI*. 2022, 6, 80-85.
<https://doi.org/10.16272/j.cnki.cn11-1392/j.2022.06.023>
- [4] Gao Ying, Zhao Ruoyi. Research on Design Strategy of Cultural Experience of Traditional Village in Terms of Service Design. *ZHUANGSHI*. 2020, 5, 97-99.
<https://doi.org/10.16272/j.cnki.cn11-1392/j.2020.05.020>
- [5] Hao Zhijun. *Research on Course and Teaching Reform*. Hunan: Hunan Education Press; 2017, pp. 16.
- [6] Jinshi, Wang Lulu, Wan Min. Reflection and Strategic Optimization of Online and Offline Teaching. *CHINA UNIVERSITY TEACHING*. 2022, 11, 72-77.
- [7] Li Li. Flipped Classroom Design for the Purpose of Deep Learning. *Technology in Education*. 2017, 4, 67-73.
- [8] Liu Wenliang, Zhang Wuyan. Research on Intangible Cultural Heritage Inheritance and the Collaborative Development Strategy of Higher Education. *Higher Education Management*. 2022, 2, 76-82.
- [9] Ma Li, Sun Hong. Research on the Application of Traditional Children's Wear Elements in Modern Children's Wear Design. *Grand View of Fine Arts*. 2018, 10, 124-125.
- [10] Song Xiaochuan, Long Caifeng. Reform and Practice of the Furniture Structure Design Course Based on Online-Offline Blended Teaching. *Furniture and Interior Decoration*. 2023, 2, 140-143. <https://doi.org/10.16771/j.cn43-1247/ts.2023.02.025>
- [11] Song Xiewei. Interdiscipline and the Value Leadership of Design Education in the New Era. *Art Research*. 2023, 5, 11-16. <https://doi.org/10.13318/j.cnki.msyz.2023.05.010>
- [12] Sun Daogong. The Intersection and Integration of Chinese Disciplines in the Context of New Liberal Arts. *Teaching in Chinese Universities*. 2023, 11, 38-44.
- [13] Yang Hui. Application of Project-driven Pedagogy in the Teaching of *Wear Design Practice* Course. *ART PANORAMA*. 2018, 9, 132-138.
- [14] Yang Yan, Wu Caiyun, Xu Cuichun. *Children's Wear Design*. Beijing: Chemical Industry Press; 2022, 129.
- [15] Zhang Hua, Yang Jie, Yao Jianxin. Teaching and Assessment of Key Competence Based on Learning Performance the Inspiration of the Consistency Improvement Strategy of the International Science Programme "Standard- Teaching- Assessment". *Chinese Journal of Education*. 2023, 9, 76-80.