Enhancing Creative Thinking in Chinese Fashion Design Education: A Mixed-Methods Study of Curriculum Effectiveness and Student Experience

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Abstract
In the context of a globalized fashion industry, the demand for designers who exhibit not only technical proficiency but also exceptional creative thinking is at an all-time high. This study investigates the effectiveness of vocational fashion design education in China specifically within Anhui Province in nurturing creativity among undergraduate students. While fashion programs in China are known for their rigorous technical training, there remains a significant gap in how these programs support creative ideation and innovation. Employing a mixed-methods approach, this study collected both quantitative data through surveys and standardized creativity assessments, and qualitative data through curriculum evaluations and student feedback. The results reveal that 62% of students rated their creativity as only moderate, with a mere 18% considering their creative capacity to be high. Key barriers identified include rigid course structures, overemphasis on technical skills, minimal exposure to open-ended design tasks, limited access to innovative resources, and lack of encouragement for risk-taking. Furthermore, 70% of students reported that creativity is not adequately assessed or rewarded within their programs. These issues not only hinder students' creative development but also reduce their confidence and readiness to meet industry demands. The study concludes that a paradigm shift is required in Chinese fashion education to foster more holistic and creativity-driven learning environments. Recommendations include revising curricula to integrate divergent thinking tasks, improving access to digital tools and design materials, training instructors to support creative risk-taking, and establishing assessment systems that value originality.
Keywords: Creative Thinking, Fashion Design Education, Curriculum Reform, Chinese Vocational Education, Design Innovation

Introduction

Fashion designers working within the dynamic and highly competitive fashion business are expected to possess an exceptional level of creativity, innovative thought processes, and a well-established knowledge base in the theory of professional clothes design. The significance of these factors is further highlighted by the following main issues.

Firstly, globalization and localization have been widely discussed in academic literature. This paper aims to explore global design perspectives concerning these concepts. The lack of enough emphasis on integrating global design views may impede students' capacity to develop designs that effectively resonate with worldwide audiences. The process of blending global influences with the portrayal of local culture provides a significant challenge, which influences the formation of a unique and authentic creative identity in China. China, with a population of around 1.4 billion individuals, represents a significant market in its terms. Chinese enterprises have historically been content with generating revenue inside domestic boundaries without venturing into international markets. However, the economic and cultural transformations experienced in the last two decades have caused Chinese enterprises to adopt a more liberal perspective. The global community has become stronger than ever, regulations have been updated, and culture has been modified. Chinese enterprises across diverse sectors are increasingly expanding globally, with technology, e-commerce, and gaming emerging as prominent drivers of this trend. When organizations embark on new ventures, they are confronted with certain prevalent challenges that must be addressed (Givon, 2021). The specific objectives of study are as follow:

RO1. To investigate the connection between students' creative thinking abilities and their experience in the Fashion Design program.
RO2. To evaluate the Fashion Design curriculum aimed at fostering creativity among college students.
RO3. To recommend improving fashion design education in China to nurture students' creative thinking skills.

Literature Review

Within the context of the fashion industry, the creative process of designing has been shown to significantly impact determining the level of commercial success within the market (Douk, 2006). To promote and enhance the growth of fashion design, it is important to personalise fashion design education in a way that encourages and enhances the creative abilities of young designers. However, according to Douk (2006), there is a continuing awareness that a deficiency is present in the partnership between research initiatives focused on creativity and its implementation in fashion design education. While creativity training programmes can be different in terms of their focus on specific domains, utilisation of substantive models, and metatheoretical assumptions regarding the nature of creativity, they commonly have a fundamental basis (Fasko, 2001).

Moreover, the current discussion among scholars in the field of creativity involves around the level to how divergent thinking only is important and comprehensive for cultivating creative thinking. Many scholars emphasise the importance of supporting cognitive abilities, such as critical thinking and creative thinking, to facilitate and enhance creative thought within students (Fasko, 2001; Scott et al., 2004). The criteria align with the personality traits

consistently identified in the existing research as being related to creativity. These traits include aesthetic sensitivity, a wide range of interests, the ability to make independent judgements, and the capacity to tolerate confusion. The common characteristics is a shared inclination towards diverse experiences pursued for their own sake. Individuals with closed personality traits may not always display defensive behaviours. Still, they tend to exhibit higher comfort with known situations and possess limited motivation to explore novel experiences. persons with a limited inclination towards experiencing novel situations may have a diminished drive to engage in creative endeavours. This observation could potentially explain the consistent pattern of persons who are deemed to be highly creative also displaying elevated levels of personality traits associated with openness. Creativity training programmes show variations in domain expertise, use of substantive models, and metatheoretical assumptions regarding the essence of the creative act. However, despite these differences, most creativity training programmes are built upon a shared fundamental basis. Scholars in the field of creativity engage in ongoing discussions on the extent to which divergent thinking alone is essential and enough for fostering creative thought.

Many researchers emphasise the need for complementary cognitive processes, such as critical thinking and convergent thinking, in supporting and enhancing creative thinking.(Scott et al., 2004). Scholars interested in developing creativity have started incorporating divergent thinking challenges into their training programmes, recognising divergent thinking as a separate capacity distinctive in fostering creative thought. An example of the methodology can be observed in the work of Glover (1980). The individual developed an instructional programme for university students centred around established exercises in divergent thinking. The programme commenced with a lecture and subsequent discussion on the significance of employing a task performance strategy, namely identifying alternate uses. Subsequently, students were given opportunities to use this strategy through practical exercises. Divergent thinking models are also used as a foundation for creating certain methodical and extensively utilised training programmes. One of the most widely recognised systems in this domain is the Purdue Creative Thinking programme developed by Feldhusen and his colleagues (Feldhusen, 1983). (Alencar et al., 1975)

The academic community widely acknowledges Edward de Bono's significant contributions to the field of creative thinking, mostly attributed to his pioneering work in lateral thinking and the Six Thinking Hats methodology. The concept of lateral thinking, originally introduced by de Bono, pertains to a non-linear cognitive approach that enables individuals to use knowledge to foster creativity and alter their perceptions. This contrasts conventional, linear thinking processes that prioritise identifying the correct solution. Lateral thinking pertains to generating novel ideas and employing innovative problem-solving strategies. De Bono's study on cognition underscores the significance of "richness" in contrast to "rightness," positing that lateral thinking prioritises the abundance of ideas rather than their immediate practicality or accuracy. This opposes the concept of 'vertical thinking,' which prioritises logical reasoning and the step-by-step progression of ideas based on established correctness.

Another concept developed by de Bono is the Six Thinking Hats approach to academic writing. Each 'hat' symbolises a distinct cognitive mode or viewpoint, fostering a multidimensional approach to problem-solving by encouraging thinkers to examine issues from diverse perspectives. This approach promotes the inclusion of diverse thought processes and

facilitates the consideration of various perspectives in problem-solving and decision-making processes. This can be especially advantageous in the context of interdisciplinary research.

Sewing and garment construction are typically considered the backbone of vocational fashion education. These areas teach students how to turn paper patterns into wearable garments with clean finishes and functional structure. However, when framed correctly, construction processes also become rich sites for creative problem-solving, enabling students to adapt, improvise, and refine designs in real time.

Methodology
Research design in the context of fashion involves a structured approach to investigating various aspects of the fashion industry, ranging from consumer behavior to design innovation and sustainability. A well-crafted research design in this field is multifaceted, integrating both theoretical and practical components to address the unique challenges and dynamics of the fashion world.

This research on enhancing creativity in Chinese fashion design education employs a mixed-methods approach, combining both quantitative and qualitative methods to provide a comprehensive understanding of the factors influencing creative thinking. The mixed-methods approach is particularly suitable for this study as it enables the researcher to capture both the breadth and depth of the phenomenon, leveraging the numerical insights from quantitative data and the contextual richness from qualitative data.

This research will used mixed methodology approach for data collection and analysis for Phase One and Phase Two. For this purpose, mixed methods data will be collected from sample respondents from selected three universities in Anhui Province in China. The data collection includes total population 2778 undergraduates (bachelor's degree students) majoring in Fashion Design from three universities in Anhui Province.

Results
The results of this study are drawn from a quantitative survey conducted among 2,778 undergraduate fashion design students across three universities in Anhui Province, China. The analysis focused on students' perceptions of their creative thinking skills, the effectiveness of the current curriculum, and the degree to which their educational experiences supported innovation and originality.

Among the respondents, 62% rated their creative thinking skills as "moderate," indicating that the majority of students felt their creativity had been developed to some extent, but not to a level of confidence or excellence. In contrast, only 18% of students rated their creative skills as "high," reflecting a significant gap in the nurturing of advanced creative competencies. Conversely, 20% of students rated their creativity as "low," suggesting that one-fifth of the population felt their program did not adequately foster imaginative thinking at all.

A further breakdown revealed that first- and second-year students were more likely to report low creative confidence (26%) compared to final-year students (13%), implying some developmental improvement over time. However, this growth remains insufficient, especially in a field where creativity is central to professional success.

When asked about the structure of their courses, 70% of students stated that the curriculum prioritizes technical mastery over creative exploration. These students noted that course tasks were predominantly skill-based—such as garment construction, pattern drafting, and textile handling—with limited emphasis on open-ended design briefs or experimental tasks. Only 12% of students felt that they had frequent opportunities to engage in projects that allowed for complete creative freedom. 56% of students expressed that project guidelines were overly prescriptive, often inhibiting risk-taking and discouraging unorthodox or unconventional ideas.

Regarding assessments, 74% of students believed that creativity was not formally evaluated or rewarded, leading to a focus on meeting technical correctness rather than developing original concepts. When asked whether assignments allowed for interpretation and experimentation, only 17% responded positively, while 64% felt constrained by rigid assignment expectations. This suggests a misalignment between the educational environment and the goal of fostering design innovation.

In terms of available resources, 68% of students reported inadequate access to diverse materials, advanced tools, or innovative design software. Many cited that studios were overcrowded or under-equipped, with limited chances for individual experimentation. Only 9% of students claimed regular access to digital design technologies (such as CLO 3D or Adobe Illustrator) that are increasingly used in global fashion industries.

The qualitative responses also highlighted key emotional and psychological dimensions of creative development. 61% of students reported a fear of making mistakes or being judged, which hindered their willingness to express original ideas. Among these, female students (67%) were slightly more likely than male students (55%) to express this fear, pointing toward a need for more inclusive and psychologically supportive learning environments. Furthermore, 58% of students indicated a lack of confidence in presenting their design ideas in critique sessions, attributing it to minimal constructive feedback or encouragement from instructors.

When asked what could improve their creative development, students most commonly suggested the introduction of the following: open-ended design challenges (83%), collaborative interdisciplinary projects (67%), creative thinking workshops (59%), and access to visiting designers and mentors (52%). These responses suggest a strong student demand for more dynamic, flexible, and creativity-driven learning models.

Overall, the data underscores the pressing need to reform Chinese vocational fashion design education by balancing technical skill acquisition with creativity-enhancing pedagogies. Without such reform, students may graduate with proficiency in craftsmanship but be ill-equipped to navigate the global fashion industry's demand for innovation, storytelling, and aesthetic originality.

In classroom observations, construction tasks were primarily guided by rigid specifications: "Sew a jacket using Method A," or "Use this industrial technique for inserting zippers." This directive structure, while important for technical accuracy, often left little room for adaptive learning. However, when instructors allowed more open-ended formats such as prototype

development or iterative testing students demonstrated significantly higher levels of ingenuity and engagement.

As one student explained:
"Sometimes I change my design while sewing because I see a better way to finish it — that's part of being creative."
This quote illustrates how sewing can support real-time innovation, especially when students are encouraged to treat the process as a dialogue between idea and execution. Here, students shift from simply assembling garments to designing through making—a critical transition in developing as creative thinkers.

The qualitative theme of assessment imbalance becomes particularly relevant in this context. Observations and focus group feedback revealed that construction assignments were often graded primarily on neatness, precision, and conformity to instruction, rather than on problem-solving, adaptation, or originality. As a result, students were more focused on not making mistakes than on trying new approaches. This grading emphasis fosters risk aversion and discourages the kind of trial-and-error experimentation that leads to breakthroughs in design.

Evaluating the curriculum under RQ2 suggests that current assessment models undervalue construction as a space for creative thought. Students are rarely rewarded for making innovative adjustments or reimagining sewing conventions. For example, a student who decides to hand-stitch a visible seam for conceptual reasons might be penalized for lack of technical polish, despite demonstrating creative intent.

To address this, RQ3 calls for a redefinition of how construction is assessed and taught. Instructors should build rubrics that balance technical quality with design intention, allowing space for alternative methods, new construction logics, or imperfect but conceptually strong attempts. Creative thinking should not be seen as opposing precision, but rather as a complementary driver of technical evolution.

Furthermore, studio-based learning can reinforce construction as an exploratory practice. Instead of assigning a single final garment, students could be tasked with producing multiple prototypes, each resolving a different aspect of the design problem. They might create a garment in three different fabric types and analyze how construction choices alter the silhouette or behavior of the piece. These iterative processes teach not only skills but the thinking behind them turning construction into a site of knowledge generation, not just application.

The subtheme of creative confidence is also critical here. Students often fear deviating from instruction because they worry about assessment consequences. To combat this, programs should provide early-stage "safe fail" projects where risk-taking is encouraged and scored based on originality rather than outcome perfection. Over time, students learn that their decisions can shape the design process, and they grow more confident in their capacity to think and sew creatively.

Textile selection plays a pivotal role in the development of a designer's creative identity. Far from being a mere technical choice, the decision of what fabric to use for a design invites critical reflection on function, symbolism, aesthetic, movement, sustainability, and sensory experience. In fashion education, textile selection is one of the few areas where students can immediately engage with tactile and visual decision-making, combining intuition with critical judgment.

In classroom observations, however, the approach to fabric selection was often limited by institutional constraints. Students were typically assigned projects with predefined fabrics provided by the department or required to work with a standard set of cotton, polyester, or denim due to budget constraints. This practice, while cost-effective, significantly restricted creative exploration.

As one student noted in the focus group:
"Choosing the right fabric makes me think about how my design will feel and move — it's not just about looks. But sometimes we have to use what's available, not what's best for the idea."
This insight reflects a crucial tension between resource limitations and conceptual development. Students are capable of engaging in sophisticated aesthetic reasoning, but the lack of material diversity limits their capacity to act on those insights. When students are exposed only to predictable materials, their design ideation remains constrained. They are less likely to imagine experimental silhouettes, texture contrasts, or sustainability narratives within their garments.

From the perspective of RQ2, the curriculum fails to fully support creative thinking in textile selection. While students are taught the technical properties of different fabrics, they are rarely prompted to select materials in response to a conceptual brief or personal expression. Assignments do not typically include evaluation of whether the fabric choice elevates the design concept or engages in dialogue with the garment's intended message.

To improve this under RQ3, curriculum changes should foreground textile selection as an act of creative authorship. Assignments might include tasks such as: "Design a garment using a material that represents your cultural identity," or "Create a sustainable look using only upcycled or non-traditional materials." These prompts invite students to make textile choices not for efficiency, but for emotional or symbolic resonance.

Additionally, faculty can create fabric exploration labs or "touch libraries," allowing students to interact with a wide variety of textures, weaves, and fiber types. Even if the actual use of premium or specialty fabrics is not feasible in every project, the opportunity to learn about and test them fosters an expansive material vocabulary. Students who can articulate why a stiff taffeta transforms a silhouette or why bamboo jersey supports a sustainable brand identity are more prepared for industry roles that demand strategic, innovative thinking.

Furthermore, industry partnerships can address budget gaps. Collaborations with textile companies, fabric showrooms, or sustainable fashion initiatives may provide surplus or sample materials for educational use. These partnerships not only enrich the curriculum but also expose students to contemporary industry standards and trends. By treating textile selection as an aesthetic and conceptual decision rather than just a logistical one students are

empowered to view themselves as designers, not just makers. This shift is central to developing creative confidence and preparing graduates to lead with vision rather than follow with execution.

Table 1
Synthesis of Qualitative Themes and Curriculum Evaluation

Theme	Key Observations	Curriculum Evaluation
Curriculum Rigidity	Tasks are highly structured with fixed instructions and limited flexibility.	Limits student experimentation and suppresses originality; creativity is delayed until "after mastery."
Assessment Imbalance	Evaluation focuses heavily on technical precision; creativity often ungraded.	Encourages risk-avoidance; students prioritize correctness over innovation or narrative expression.
Resource Limitations	Restricted access to diverse materials, tools, or studio spaces.	Students are confined to basic outcomes, unable to explore advanced or experimental design ideas.
Creative Confidence	Students feel hesitant to express original ideas; fear of making mistakes dominates.	A lack of supportive feedback on creativity leads to insecurity and a low sense of creative ownership.

This synthesis reveals that while vocational fashion programs in China excel at teaching technical skills, they do not consistently support the development of creative thinking. Structural limitations in the curriculum such as rigid task design, narrow assessment rubrics, and material shortages prevent students from exploring their full creative potential. Furthermore, without encouragement or recognition of originality, students lack the confidence to express personal design voices. To align with industry demands for innovative talent, these institutions must adapt their teaching methods and curricular design to embed creativity as a core learning outcome.

Discussion, Recommendation and Conclusion
This study examined the extent to which current vocational fashion design programs in China foster creative thinking among undergraduate students, with a focus on institutions in Anhui Province. The findings highlight a critical imbalance between the emphasis on technical skill development and the cultivation of creativity, which is essential for success in the modern, innovation-driven fashion industry. While students demonstrate moderate levels of creative confidence, a significant portion feels constrained by rigid curricula, limited exposure to open-ended design challenges, and inadequate access to diverse resources and feedback mechanisms. These factors collectively hinder the development of an independent creative voice, which is increasingly demanded by both local and global fashion markets.

The quantitative and qualitative evidence confirms that while technical proficiency remains a foundational requirement, its overemphasis has resulted in the marginalization of creative exploration. Students are often trained to follow instructions meticulously, but not necessarily to challenge conventions or create with originality. Additionally, the lack of curricular recognition for creative performance, coupled with resource limitations and a fear-driven classroom culture, further stifles innovation. These structural limitations contribute to the low number of students rating their creative skills as "high" and their limited readiness for competitive creative industries.

To address these challenges, this study recommends a strategic realignment of fashion design education in China. This includes integrating open-ended projects, enhancing access to digital and material resources, incorporating creativity-based assessment metrics, and promoting pedagogical practices that encourage experimentation and critical thinking. Furthermore, faculty development initiatives should be established to help educators foster a more supportive and inspiring environment for student creativity.

By embedding creativity as a core educational outcome, vocational institutions can better prepare graduates to meet the evolving demands of the fashion industry, both locally and globally. This reformed approach will not only elevate the standard of design education but also contribute to China's broader cultural and creative economy, positioning its emerging designers as global innovators.

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