Exploration and Practice of Integrating Shangshan Culture into Art and Design Teaching in China's Higher Vocational Colleges

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Abstract

Archaeological authorities consider Shangshan culture, a unique name for China's outstanding local culture, to be the origin of the world's painted pottery civilization, Chinese farming villages, and the world's rice civilization. Shangshan culture is more than 3,000 years old compared to the local civilization discovered by historians. We hypothesized that introducing art and design majors into China's vocational colleges is an effective method for promoting local culture. Integrating local culture into art and design teaching in China's vocational colleges provides diversified teaching resources, heightens students' sense of cultural identity, improves their creative performance, and extends local culture's influence. Therefore, by analyzing the current status of art and design teaching in China's vocational colleges, we highlighted local culture's role in the teaching process. We adopted a quasi-experimental design method to conduct an experiment on 90 students from a vocational college majoring in an art and design course. These students learned about the integration of Shangshan culture into art and design under their teachers' guidance and applied their learning to their artistic creations. This study's results will help better integrate local culture into art and design teaching, and consequently, achieve a win-win outcome.

Keywords: China's vocational colleges; art and design; teaching practice; Shangshan culture

1. Introduction

An entrenched belief among Chinese people is that the Chinese local culture has been a part of the long history and the soul of the nation, thus playing a unique role in developing regional culture (Qian, 2019). The Chinese argue that culture must be promoted through education and practice (Watson and Watson, 2013). China's vocational education system is integral to the country's development strategy (Huang, 2022) and is irreplaceable in higher education (Qian and Wang, 2022). Art and design major courses offered in vocational colleges have several advantages: they help explore, translate, and express local culture (Zhan et al., 2022). Applying local culture to art and design teaching in vocational colleges plays a noteworthy role in training professional design talent (Watson and Watson, 2013; Huo et al., 2020) and is of remarkable significance for economic and social development (Zhan et al., 2022). While integrating local culture into art and design teaching in vocational colleges, we should take full advantage of the geographical location of a region and discover and apply its cultural characteristics. This helps protect, use, pass down, and develop local culture as well as enhance teaching methods (Zhan et al., 2023) and train top art talent, leading to a win-win situation (Qian et al., 2022).

In this study, we elaborate on how Shangshan culture and art and design teaching are a great fit with each other in China's vocational colleges, and we analyze the characteristics of the artistic creation process. Through our analysis, we aim to build an art design teaching model in vocational colleges based on Shangshan culture, improve the creative performance of Chinese college students, and hone their hands-on ability. The results can serve as a reference for teaching art and design in vocational colleges in China. Our research questions are as follows: (1) How is art and design teaching based on Shangshan culture in China's vocational colleges? (2) How is Chinese college students' performance in terms of creativity after they study art and design based on Shangshan culture? (3) How are

the innovation, heritage, and development of the culture after Shangshan culture integrated into art and design teaching in vocational colleges?

2. Literature Review

2.1 Art and Design

Art and design is an independent art subject the Ministry of Education of the People's Republic of China established in 1998. Art and design can be categorized as graphic design, visual communication, product design, and environmental design. As the only means to train designers to excel (Song, 2022), art and design is an esthetic subject that involves enhancing the comprehensive qualities of designers (Qian et al., 2022), including their ability to appreciate, express, and create (Tan, 2009). We define art and design as a comprehensive discipline. For example, in packaging design, the design process considers many factors such as packaging material, size, and structure; processing technology; and esthetic appearance.

2.2 Shangshan Culture

Numerous bits of pottery, stone tools, and wooden structures, and a small number of rice remains and rice cob base plates, have been excavated from Shangshan culture sites (Liu and Wu, 2022). This culture is at least 8,500 years old and spans a period longer than that of the Southern Song Dynasty (Jiang, 2007; Liu et al., 2022). In 2006, Xi Jinping, general secretary of the Central Committee of the Communist Party of China, instructed that Chinese people strive to study and promote Shangshan culture (Qian and Wang, 2022).

2.3 Local Culture and Art and Design Teaching

2.3.1 Insufficient integration of local culture into art and design teaching

Vocational colleges in China are now placing a greater emphasis on the application of local culture. They consider the integration of local culture into teaching to be a crucial method of establishing cultural brands of colleges and a fundamental task in the provision of moral education (Xing and Yang, 2022). However, these colleges' exploration of how to fully integrate local culture into teaching remains incomplete and a mere formality in practice (Yang and Wang, 2011). Local-culture-related courses that some local colleges offer are often optional, including restricted and public optional courses (Zhang, 2010). Moreover, these colleges mainly offer theoretical and basic courses but no practical courses, which leads to insufficient integration of theory into practice (Sun and Wang, 2016). Therefore, students fail to understand cultural meanings and apply them in practice (Tan, 2009).

2.3.2 Art design teaching focuses more on output and less on connotation expression in terms of innovative application

Teaching quality and results depend on the application of local culture to art and design teaching in vocational colleges (Liu, 2022). Most vocational colleges offering courses combined with local culture only summarize local culture's characteristics and apply their findings mechanically (Qian, 2019; Qin, 2013). Focusing only on the expression of these characteristics and skipping profound exploration of the essence of the local culture has resulted in a lack of innovative breakthroughs in the teaching quality of relevant majors in vocational colleges. It has also resulted in the severe homogenization of design professionals (Qian and Wang, 2022), a scarcity of top or heterogeneous talents focusing on determining cultural meanings, and bleak employment prospects for graduates (Zhou and Zhang, 2022).

2.3.3 Imbalance between content innovation and teaching practice

The present syllabi of the art and design courses offered in China's vocational colleges are similar to the teaching plans of universities. Most of their art and design courses focus on teaching and learning of drawing. They pay negligible attention to design practice and production (Zhou and Zhang, 2022; Han, 2021). In China's vocational colleges, art and design is a comprehensive and practice-oriented major (Kong, 2020). Most colleges consciously integrate local culture into their courses, but they hardly focus on professional operation in practice and social practice. They neglect the significance of outdoor and practical teaching, so the ratio of the classroom to extracurricular teaching remains extremely uneven (Liu, 2021). Compared with the rapid economic development, the teaching objectives of art and design in China's vocational colleges are developing slowly, with local culture application failing to keep up with the times and interact with society. This is in contrast to the objective of training practical talent to meet social needs (Zhao and Hui, 2021). The practical part of teaching has gradually become weak, and teaching has failed to target students and adapt to the current situation. This makes students from vocational colleges inferior to those from ordinary colleges and universities in professional theory. Practical skills are largely neglected, creating a gap between social needs and students' abilities. Students' ability to adapt to society is limited

(Wang, 2022; Zhan et al., 2022).

3. Method

3.1 Teaching Design

3.1.1 Teaching content

To allow vocational colleges to efficiently promote the excellent culture with local characteristics, we should examine local culture, provide diversified creative resources for art and design teaching, and fully integrate local culture into this teaching (Liu, 2022; Chen, 2023). We should also arouse students' interest in learning local culture and enhance their enthusiasm for producing related works of art, thus expanding local culture's influence and activating social resources. Moreover, the role of local culture in art and design teaching in vocational colleges must be further reformed and innovated (Kong, 2020). One precondition of reform and innovation is to accurately understand the essence of art and design teaching in vocational colleges and remain true to its principles. Based on this precondition, the application of local culture in art and design teaching must be further improved (Qian and Wang, 2021). Furthermore, the resources inside and outside the school must be combined, and the influence of local culture on the world must be extended by continuously innovating and making efforts to integrate the local culture into art and design education (Zheng and Chen, 2023).

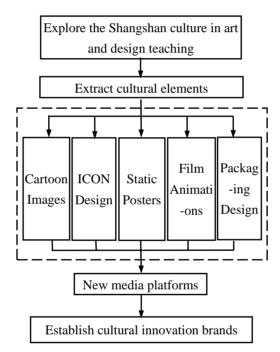


Figure 1. The innovative design model of Shangshan culture

According to Zhao and Hui (2022), the elements of modern art and design must be released from a macro perspective and then gradually refined. However, because of the diversity and complexity of design elements, identifying key points in practice is difficult. Therefore, the analytic hierarchy process can be used to disintegrate the ambiguous macroscopic research object into specific design features (Figure 1). Based on objects of Shangshan culture, design elements can be released in many ways.

3.1.2 Teaching planning

After discovering, analyzing, and arranging Shangshan culture's meanings, teaching aims to fully integrate the design elements related to this culture (shapes, patterns, patterns, colors, materials) into the teaching process. Results of students enrolling in the course are shown through art and design such as ICON, static posters, series emoticons, and packaging design. Moreover, Shangshan culture is promoted using esthetic effects such as sound and light so that students can internalize the traditional Chinese culture, thereby contributing to the inheritance and development of Shangshan culture.

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Table 1. Unit 2

Unit 2: Visual design of pa	ckaging	
Extraction of elements in Shangshan culture	1	Shangshan pottery is mainly carbonized pottery, clay pottery, fine pottery, and so on, in which a large number of rice husks and ears of rice are mixed. Stone raw materials are mostly quarried from the pebbles in the nearby riverbank.
	2	The pottery is typically in the shape of large-mouthed pots and amphora. Stone tools are divided into side-bladed stone tools, end-bladed or end-bladed and side-bladed stone tools, disc-shaped tools, and small pointed tools.
	3	Pottery decorations are relatively simple. They have patterns of the sun, ropes, folding line patterns, incised patterns, mud rods and concave bands. The number of dentate patterns is the highest, some appearing alone and some in combinations.
Professional knowledge of material features and selection	1	Paper is easy to process and is suitable for large-scale mechanized production and a variety of printing. There are diverse types of paper. The common types are white cardboard, kraft paper and cellophane. They are usually less than 0.1 mm thick and less than 200g/m2.
	2	Paperboard is easy to make and is mainly used for sales and packaging production. Its thickness is between 0.3 mm and 1.1 mm.
	3	Paper bag paper, parchment paper, imitation parchment paper, translucent paper, food wrapping paper, tea bag paper, black opaque wrapping paper, and neutral wrapping paper.
	4	When selecting paper, we need to consider whether it is convenient for transportation and display and for handling and recycling packaging waste, and whether it is suitable for mechanical processing.
Professional knowledge of production techniques and tools	1	In the three-dimensional grouping process, folding, inserting, piercing, and gluing are usually mixed. Folding is mainly for enclosing boxes, inserting is mainly for strengthening the assemblage among individual box shapes, piercing is mainly for strengthening boxes, and gluing is mainly for keeping boxes more upright.
	2	Photoshop is software designed to draw packaging trademarks (brands, names), main pictures (photographic images, realistic depictions, cartoon, etc.), related auxiliary decorative graphics, and other visual graphics, and to mix colors.
	3	Illustrator is composition software designed to handle text about packaging, information, description, advertising, and other information.
Professional knowledge of structure and	1	Tube folding cartons are fixed or sealed with rocking wing folding and a combination of base plate and flaps.
modeling	2	To make a plate folding carton, one should fold the cardboard into a box at an oblique or right angle, with the bottom plate connected to the main plate.
	3	The fun box (imitating natural shapes, artificial shapes, animal shapes) uses generalized and brief geometric expressions to imitate the morphological features of animals, plants, and people in nature.
Professional knowledge of artistic aesthetics	1	Graphics need to have a certain symbolic importance for consumers to calculate the value of goods. They are divided into abstract graphics and figurative graphics. One should pay attention to the contrast and unity

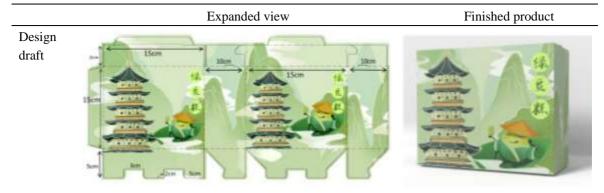
Unit 2: Visual design of packag	ing
	between graphics and graphics and between graphics and text when composing.
2	When designing text, one should take into account product characteristics.
	Products' design should be concise and clear to transmit commodity
	information, and it should be easy for consumers to identify and for
	salespeople to sell goods. They should view the packaging as a whole and
	pay attention to the harmony and beauty of the font.
3	When designing colors, one should take into account the commodity quality
	and cultural preferences and aesthetics in the region, thus forming visual communication power.
Professional knowledge 1	Inner diameter size is measured in millimeters. The length, width, and height
of package size	of the interior of the product are usually increased by 1-3 mm so that it is
	convenient for consumers to take away the product.
2	Cutting die size, also known as manufacturing size, determines the
	relationship between each board through an unfolding diagram of a
	three-dimensional carton. When calculating it (manufacturing size = inner
	diameter size + paper thickness/2), one must indicate the length * width *
2	height.
3	Outside diameter, the volume size of packages, is an important basis for the
	design of boxes outside packages, transportation, and storage (outside diameter size = manufacturing size + paper thickness/2).
4	The most economical material of cardboard is $2:1:1$ for length, width, and
T	height, such as 58 * 29 * 58. The most wasteful material is 1:1:1 for length,
	width, and height, such as $58 \times 58 \times 58$. The most beautiful material is
	1.618:1 for length and width. The length is about 1.6 times the width, and
	the width and height are similar, such as $58 \times 36 \times 40$. The material with the
	highest compressive strength is 1.414:1 for length and width, and the length
	is about 1.4 times the width.

In a packaging design course, the teaching aim is to develop students' comprehensive design ability from the art and design perspective, ranging from the selection of packaging materials and structure production to appearance decoration, and to divert students' thoughts toward "personalized" works with long-term vitality. The whole process replicates students' ability to exhibit their own thinking and emotional experience as materialized works and not just simple production skills.

3.1.3 Overview of packaging design

Table 2 presents students' final works. Based on Shangshan culture, they designed product packaging for local specialties around Shangshan sites using creative expressions that their peers liked. Table 2 presents a packaging design for Jinhua mung bean cake, which represents Shangshan culture, and the Wanfo Pagoda, a landmark building located at a Shangshan site. The packaging is green in color, similar to the color of mung bean cake. Because mung bean cake is often consumed in late spring and early summer, the packages have images of green mountains and water along with a man who revels in the beautiful scenery while wearing a bamboo hat and hanfu (Chinese costume). The packaging structure comprises internal and external packaging. The internal package is made of plastic, with one package for each cake. The material used for external packaging is paper, and this packaging has the shape of a lock-bottom box.

Table 2. The packaging design of Jinhua mung bean cake



3.2 Research Method and Process

A quasi-experimental design was used to collect art design works. These were used as qualitative data. Based on the multivariate assessment results, we further verified the learning effectiveness of students enrolled in art and design courses integrated with Shangshan culture in China's vocational colleges. The author has been teaching art and design in vocational colleges for almost 10 years. The author specializes in local culture and vocational art education and has published more than 10 papers on the subject. The author has continuously explored effective paths and models for improving the deep integration of excellent Chinese local culture.

3.3 Research Participants

A secondary vocational college in China was selected as the research object. The institute focuses on developing students' esthetic quality, artistic creativity, and humanistic and scientific attainments. The institute equips its students with theoretical knowledge, practical ability, and innovative and cooperative consciousness of art and design. A total of 90 students majoring in art and design in this college were included as participants to explore the learning effectiveness of integrating Shangshan culture into art and design courses in China's vocational colleges.

3.4 Research Tools

The literature has proposed an evaluation index of packaging design works (Li and Guo, 2018). We revised its assessment criteria and invited five experts—three full-time teachers with senior titles in art and design, one leading expert specializing in Shangshan culture, and one part-time teacher from enterprises—to assign points to each work. The assessment was based on seven dimensions: novelty, appropriateness, techniques, imagination, esthetics, emotion, and overall impression. Each dimension could be assigned a minimum score of 1 and a maximum score of 5.

4. Discussion

The statistical results were classified into the aforementioned seven dimensions: novelty (SD = .47, M = 3.40), appropriateness (SD = .44, M = 3.40), techniques (SD = .50, M = 3.40), imagination (SD = .52, M = 3.32), esthetics (SD = .53, M = 3.32), emotion (SD = .43. M = 3.40), and overall impression (SD = .47, M = 3.52). Their mean scores ranged from 3.30 to 3.50, with the highest and lowest scores being 4.60 and 2.40, respectively (Table 3).

Dimension	Specific meaning	М	SD	Med.	Max	Min
Novelty	Degree of being different		.47	3.40	4.40	2.40
Appropriateness	Degree of fitting with the theme	3.40	.44	3.50	4.40	2.60
Techniques	Overall level of design and production	3.40	.50	3.30	4.40	2.20
Imagination	Level of imagination	3.32	.52	3.50	4.60	2.40
Aesthetics	Level of artistic and aesthetic values	3.32	.53	3.30	4.40	2.20
Emotion	Degree of capturing authors' true feelings	3.40	.43	3.40	4.20	2.40
Overall impression	Level of artistic and creative performance	3.52	.47	3.50	4.40	2.60

Table 3. The assessment scale of creative performance (sample size: 90)

Table 4 presents the student's work that received the highest score from the five experts. A Jinhua shortbread is presented in a horizontal flip-top box. A Shangshan pottery jar and local flowers are presented at the two ends of the text that reads, "The Jinhua shortbread." The graphics and the Chinese characters and English words enhance each other's beauty. A bird is drawn standing on top of the bread, and another bird is shown standing close by. These images add radiance and beauty to the package. The front, side, and back of the package are painted with shortbread images to display the product comprehensively.

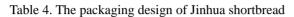




Table 5 presents a packaging design work that received average scores for creative performance from the five experts. The packaging design of Yiwu Fried Dough Twists is also based on Qian and Wang's (2022) "Shangshan Xiaobai." The original yellow rice husk is replaced with two green leaves. The student has added blusher and curved eyes, reduced the size of the character, and incorporated the character into the package along with the Fried Dough Twists. The package is made of paper and is triangular in shape, similar to Shangshan pottery. A lanyard has been added at the top of the package so that users can easily carry it after folding it.

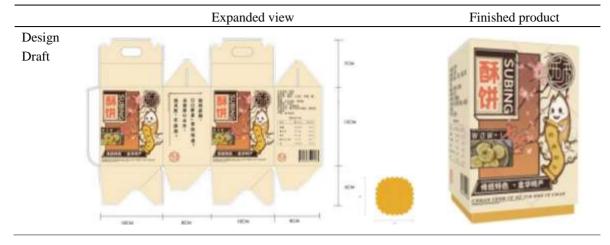
	Expanded view	Finished product	
Design Draft	T-SCH ACM ACM ACM ACM ACM ACM ACM ACM		

Table 5. Packaging design of Yiwu Fried Dough Twists

Table 6 presents the packaging design work that received the lowest scores from the five experts. The student based their packaging decoration on Qian and Wang's (2022) "Shangshan Xiaobai." Both drawings and pictures are used to combine unrelated flowers, shortcakes, and cartoon characters. The layout of the fonts is disorganized, and as many as eight types of fonts appear on one page, making people feel confused. The esthetics is lacking, and the overall

creative performance is poor.

Table 6.	Package	design	of special	shortbread
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Higher vocational colleges, representing China's strategies for educational development, play a unique role in higher education (Qian and Wang, 2022). Higher vocational education in China is closely related to the country's economy (Zhou, Shulin, and Zhang, Zhong, 2022), has distinguished Chinese characteristics (Xing Yanyan, Yang Liang, 2022), and is a major achievement of reform and opening up (Deng, 1999). By deploying the excellent Chinese local culture, the art and design major has become a part of the curriculum system with local characteristics. It is the basis for developing local culture. Colleges offering art and design courses are distinguished from other vocational colleges in other regions and can show their advantages in regard to providing education (Zhang and Chu, 2019). Art and design majors involve an innovative investigation of art teaching in higher vocational colleges to fully integrate design elements related to Shangshan culture (such as shapes, patterns, designs, colors, and materials) into the teaching process (Qian et al., 2022). Overall, the process involves developing students' comprehensive design ability through learning experience and channelizing their thoughts and ideas into "personalized" works with long-term vitality (Fan and Ye, 2020; Ye et al., 2020). This process reflects students' ability to present their thoughts and emotional experiences as works of art (Fan and Ye, 2020). Some vocational colleges have already started exploring topics such as Shangshan culture in Central Zhejiang Province. Jinhua Vocational and Technical College has recently been exploring combining art and design with Shangshan culture.

5. Conclusion and Suggestions

5. 1 Conclusion

5.1.1 Optimize the curriculum and synchronize the integration of multiple majors

Local culture has regional characteristics as well as the characteristics of diversity and richness. With the application of local cultural resources to art and design teaching in vocational colleges, knowledge that students acquire in the classroom can be extended. This will help them clearly understand the history, customs, and topographies of different regions and broaden their horizons so that they can gather more materials for producing works of art and seek more artistic inspiration. The integration of resources of Shangshan culture into curricula and teaching can help pass down the culture, facilitate the innovation of teaching and learning methods, promote efficient use of local resources, and help students understand and appreciate the local culture's ancient wisdom through learning, experience, and exploration. Further, through this integration, students can be offered guidance on developing their creativity, redesigning the local culture, and exploring its cultural meanings. They can be encouraged to draw closer to and recognize Shangshan culture and produce personalized artistic works in various forms based on a combination of the local culture can allow for effective use of multiple resources inside and outside the school, coordinate students' development, and enable the local culture to become a unique player in art and design teaching in vocational colleges.

By innovatively using digital science and technology and Shangshan culture and art in combination, a creative team comprising students and teachers is making major efforts to create a cultural brand. They have developed various

feasible plans involving microfilm animations, static and dynamic digital graphics, cultural creative products, online games, and so on. Local authorities have commissioned the team to design various images and a series of emoticons, such as images of the "big mouth pottery pot" and "Shangshan Xiaobai." By referring to wooden buildings excavated from a local site, they have designed more than 50 static and dynamic posters as digital illustrations, created approximately 100 product packs, and made a 5-minute, 22-seconds-long microfilm animation called "Encounter with Shangshan." This animation depicts the historical background, pottery production, geographical location, rice cultivation, and architecture of Shangshan sites in an interesting and interactive manner. The animation is available on major internet video platforms, WeChat public accounts, microblogs, and other new media platforms. The animation has been viewed and shared over 10,000 times, and the trend is continuing. Many provincial and municipal news media organizations, such as Zhejiang News, Jinhua Daily, Pujiang Micro News, and Pujiang Culture and Tourism Information, have covered this animation in their news.

5.1.2 Innovative teaching modes and collaborative practice in multiple fields

Teachers and students in local vocational colleges hail from different regions and have little awareness about the local culture. Therefore, if students lack an understanding of the culture, teachers, especially college teachers, will find it more difficult to broaden students' cultural horizons and achieve their teaching objectives. Students will also find it difficult to acquire the essence of the local culture. Design teaching integrated into the innovative application and production of local culture is effective for the dissemination of local culture. Using it, teachers can take complete advantage of multiple resources inside and outside schools, thereby promoting the innovation of art and design teaching combined with local culture in higher vocational colleges.

We should support teachers and students to go on field trips to factories and enterprises and apply their teaching results in practice. The "going out" teaching method must be adopted to connect classrooms with society, helping teachers and students achieve a deeper understanding of local culture and improving the communication between schools and public institutions and enterprises. This will further help students master local culture's essence. Experts, scholars, and workers on the frontlines must be invited to deliver lectures and teach practical courses in school, thereby contributing to training "double-titled teachers," broadening students' professional horizons, and deepening their understanding of local culture. Specifically, teachers must be encouraged to connect their teaching results to social needs, participate in domestic and international design competitions, actively have their results tested by the market, and protect patents and copyrights. Art and design teaching should focus on teaching skills as well as on educating students on local culture. Students should be trained to become comprehensive talents with both vocational skills and humanistic attainments. Therefore, excellent resources that are present inside and outside schools can balance the proportion of local culture to teaching practice, effectively activate social resources, and expand the influence of local culture.

5.1.3 Deepen students' understanding of values and build a design innovation model in multiple dimensions

Art and design teachers in vocational colleges should first understand, recognize, and absorb traditional local culture. Then, they should appropriately transform local culture and innovative design forms, discover the artistic value of local culture, and impart their learning to students. More important, teachers should combine extracurricular study and online resource libraries for the full integration of resources both inside and outside the classroom and online and offline. This will help students further comprehend and appreciate the local culture, increase their awareness of the innovative application of this culture to the learning process, and integrate their knowledge with modern culture.

Shangshan culture has unique cultural meanings (rice culture, geographical environment, artifact culture, etc.). By completely transforming these cultural resources and applying them to art and design teaching in vocational colleges, teaching can be improved and modernized, teaching objectives can be continuously optimized, and the coordinated development of traditional local culture and modern social civilization can be realized. Students of art and design teaching at Jinhua Vocational and Technical College, led by their teachers, have created numerous cultural and creative products close to people's daily lives, such as clothing, stationery, accessories, and festival supplies. Among them, more than 5000 Shangshan cell phone cases and over 100 Shangshan key chains have been sold.

This research team has participated in many international and national design and cultural and creative competitions and won several awards for its works inspired by Shangshan culture. Several national utility model patents and appearance patents have been obtained for its cultural and creative products. Several of its cultural and creative products and static and dynamic visual products have won more than 10 international (International College Student Art Design Annual Award and Singapore Sands Art and Design Competition), national (National Advertising Art Design Competition for College Students and China Packaging Creative Design Competition), and provincial (Zhejiang Multimedia Work Design Competition for College Students, Zhejiang Advertising Creative Design Competition for College Students) awards. The teachers have also won many honorary titles such as "Young Craftsman," "Bawu Craftsman," "Young Master," and "Excellent Young Social Science Worker."

5.2 Suggestions

In this study, we found that students exhibited good creative performance in the art and design course integrated with Shangshan culture in a vocational college in China. However, how to maintain this performance remains a key concern. Accordingly, we suggest redesigning the traditional culture so that students can explore cultural meanings while creating, become close to the culture, internalize their recognition of Shangshan culture, and present their feelings and experiences through their works, thus producing highly creative artworks (Qian et al., 2022). Encouraging students in a timely manner to continue to immerse themselves in learning thematic production is crucial.

Furthermore, we should make good use of college resources so that students can learn, experience, and explore the marvelous history of their culture; deeply perceive ancient wisdom presented in this culture; and expand their horizons. Therefore, integrating Shangshan culture into art and design teaching is an effective teaching method. We should aim to achieve greater integration of local culture and encourage students to better apply and master culture-oriented knowledge and skills during learning. In short, teachers must provide students with more opportunities for conducting an in-depth exploration of the integration of China's outstanding local cultures during the teaching process to improve their creative performance.

5.3 Limitations of the Research and Recommendations for Future Studies

Art and design teaching in China started late, and Western ideas influenced them. Therefore, Western practices were overly imitated and applied mechanically to teaching and cultural expression was lacking (Zhan et al., 2022; Zhan et al., 2023), necessitating a greater emphasis on passing down China's traditional culture. Future studies should focus on promoting students' development; encouraging students' participation in the classroom; evaluating students in terms of sketching, proofing, layout, and the finished product in a multidimensional and comprehensive manner; and encouraging students to apply their multidisciplinary knowledge and skills to their design works. This would also strengthen their cultural identity and increase their national self-confidence.

In this study, we explored the integration of excellent local culture into art and design teaching in China's vocational colleges in theory and practice. The findings serve as a reference point for boosting the art career of students. Local culture should be introduced into the art curricula of vocational colleges, and this subject should be extended to students of different majors in future studies.

Declarations:

Availability of data and materials

The original contributions presented in the study are included in the article/supplementary material; further inquiries can be directed to the corresponding author.

Competing interests

The authors declare that they have no conflict of interest.

Author contributions

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

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Ethics Statement

This study was approved by the Ethics Committee of Dhurakij Pundit University (DPUHREC050/65NA).

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