



# Research on the Practice and Application of "Reality Coupling" Teaching Method in Visual Communication Design Course

Xiaohong Wang<sup>1</sup>, Qing Gao<sup>2</sup>, Peiyao Li<sup>3</sup>, Pan Yu<sup>4</sup>, Yanli Ma\*

<sup>1</sup>Jilin University School of Marxism, Changchun, 130012, China.

<sup>2</sup>Wuhan University of Engineering Science, Wuhan, 430200, China.

<sup>3</sup>Jilin University School of Marxism, Changchun, 130012, China.

<sup>4</sup>Jilin University School of Marxism, Changchun, 130012, China.

\* Changchun Guanghua University, Changchun, 130033, China.

\* **Corresponding Author:** [mayanli2001@hotmail.com](mailto:mayanli2001@hotmail.com)

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## ABSTRACT

Reality coupling' refers to the integration of students' training, the creation of practical training rooms, and professional course teaching with external teaching resources such as enterprises, allowing students to engage in practical training and learning. This article takes the teaching of visual communication design course as an example, connects with the latest standards, and refines the course content; Using cloud technology for real-life teaching, introducing real scenes into the classroom, making students feel as if they are there, experiencing the real atmosphere, and cultivating innovative consciousness.

**Keywords:** Reality coupling, Visual Communication Design, innovation research

## INTRODUCTION

In the era of digital new media, the way information is disseminated has undergone earth shaking changes, and people's way of obtaining information has shifted from traditional paper media to digital media. As an important component of the media industry, visual communication design plays an increasingly prominent role. Therefore, it is imperative to reform the teaching of visual communication design major. Firstly, the arrival of the digital new media era has made visual communication design an important means of information dissemination. Whether it is websites, apps, social media, or advertising, visual communication design plays an important role. In this era, designers need to possess sharper insights and innovative thinking to adapt to the constantly changing market demands. Secondly, the teaching reform of visual communication design major is an inevitable requirement to adapt to the development of the times [1-5]. The traditional teaching method of visual communication design focuses more on imparting theoretical knowledge and neglects the cultivation of practical abilities. However, in the era of digital new media, the importance of practical ability and innovative thinking is even more prominent. Therefore, it is necessary to reform traditional teaching methods in order to cultivate high-quality talents that are more adaptable to market demand. On the one hand, we should attach importance to the cultivation of practical abilities. Practice is the only criterion for testing truth, and only through practice can one truly master the skills of visual communication design. Schools should increase the proportion of practical courses in the teaching process, allowing students to practice more and improve their practical skills. At the same time, they should encourage students to participate in various design competitions, exhibitions, and other activities to exercise their practical abilities. On the other hand, attention should be paid to cultivating innovative thinking. Innovation is the soul of design, and only with innovative thinking can creative works be designed. Therefore, schools should emphasize the cultivation of students' innovative thinking, encourage them to try new design concepts and expression techniques, and guide them to pay attention to social hotspots, human needs, etc., constantly stimulating their innovative inspiration. Finally, the necessity of teaching reform is also reflected in improving teaching quality and cultivating talent qualities [6-9]. By reforming teaching content and methods, teaching can be made more in line with market demand, further enhancing students' practical abilities and innovative thinking. In addition, schools need to strengthen the construction of their teaching staff and improve their quality. Only by having a high-quality teaching staff can we cultivate high-quality talents.

Reality coupling "refers to the integration of students' training, the creation of practical training rooms, and professional course teaching with external teaching resources such as enterprises by schools, allowing students to engage in practical training and learning [10-12]. This teaching model, which focuses on "school enterprise cooperation" and "combination of knowledge and action", is suitable for cultivating applied undergraduate talents. Reality "refers to a real work environment or simulated real environment, where students can be exposed to practical work problems, understand and master the skills and knowledge required to solve these problems. Coupling "refers to the close connection and interaction between school teaching and enterprise practice, benchmarking the requirements of relevant courses in schools (Fig.1). Based on the actual situation of teaching resources and local enterprise employment needs without departing from textbooks, it should strengthen the integration of training and learning, achieve learning by doing, and solve the problems of the mismatch between school talent cultivation and market demand, as well as the disconnection between theory and practice.

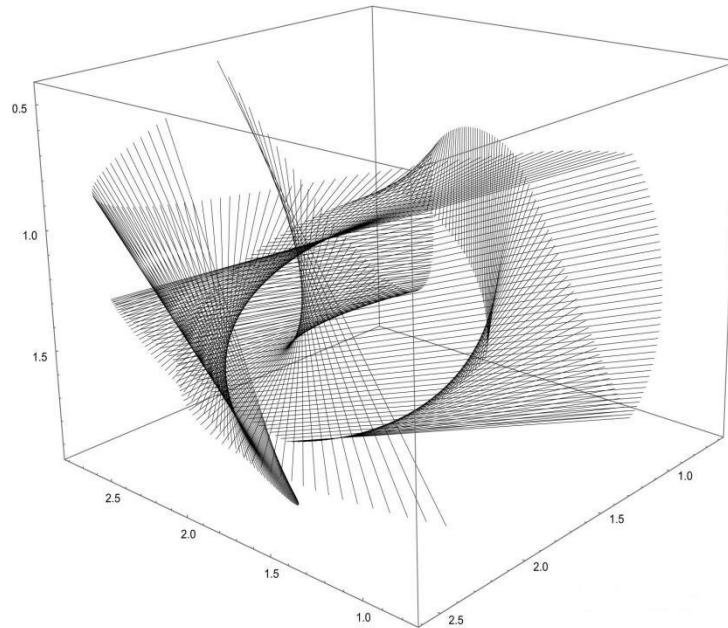


Fig.1 Coupling model diagram

## THE CURRENT SITUATION OF VISUAL COMMUNICATION DESIGN MAJOR IN UNIVERSITIES

### Insufficient understanding of cultural literacy in universities

The inaccurate positioning of cultural literacy and unclear understanding of visual communication design in universities have led to a shortage of teaching staff. The academic affairs department only focuses on managing the visual communication design and teaching work of various departments, resulting in unsatisfactory teaching effectiveness, incomplete teaching organization and guarantee system, and a lack of a practical and feasible goal system for cultural literacy education. Cultural literacy education is still in its early stages, characterized by individual approaches and a lack of communication and integration plans. It can only be explored and attempted within a certain range based on individual abilities, lacking theoretical guidance on the goal system of cultural literacy education. The level and methods of creating a cultural atmosphere still need to be strengthened.

### Lack of innovation capability

Generally speaking, visual communication design is a highly practical major that focuses on cultivating students' innovative consciousness and creative ability, and cultivating applied and versatile high skilled talents for the country and society. However, due to the lack of sufficient time for effective practical training and internships among students majoring in visual communication design, their skills in visual communication design are outdated and they are not familiar with the visual communication design process. In addition, with the continuous expansion of enrollment in universities, the number of students majoring in visual communication design has increased on a large scale. In the classroom, due to the large number of students, it is difficult for professional teachers to ensure the quality of teaching, resulting in some students with weak foundations lacking innovation ability and incomplete understanding of knowledge.

### Lack of cultural connotation

For designers, cultural heritage is very important and serves as a significant source of inspiration for their designs. If visual communication design works lack cultural connotations, the meaning of design will no longer exist, just like a person without a soul, and therefore cannot attract the attention of others. At present, the teaching of visual communication design in universities has neglected the cultivation of students' cultural literacy, adopting traditional imitation of visual communication design experience in Europe, America and other countries, and neglecting the application of the development history of visual communication design, traditional Chinese culture and aesthetic theory, which has hindered students' improvement in cultural

literacy. In the actual process of visual communication design, students find it difficult to express their personal creative ideas and design concepts. The lack of cultural connotation among visual communication designers not only limits their exploratory thinking and makes it difficult to produce excellent works, but also reduces the infectiousness of their works.

### Unreasonable course design

The problems in course arrangement mainly manifest in the growth and differences in the number of students. With the continuous increase in the number of students majoring in visual communication, the differences between students are also growing, and their mastery of professional knowledge varies. However, many universities do not fully consider this in their curriculum arrangements, resulting in some students starting practical operations without sufficient basic knowledge, which can easily lead to operational errors. Secondly, the unreasonable distribution of professional courses is also an important factor affecting the quality of teaching. Some universities arrange multiple professional courses together, causing students to be in a tense learning state for a long time, unable to cope with the difficulties in the courses, and their mastery of professional knowledge is not sufficient. This arrangement not only affects students' learning outcomes, but also limits their development of innovation and practical abilities.

## STRATEGIES FOR IMPROVING THE TEACHING PRACTICE AND APPLICATION OF "REALITY COUPLING" TEACHING METHOD IN VISUAL COMMUNICATION DESIGN COURSE

### Building an intelligent classroom

Classrooms play an important role in disseminating cultural information. Current research emphasizes the advantages of smart classrooms, such as promoting interaction and sharing of learning content and materials that are easier for students to understand. SMART has launched a series of interactive whiteboard tools and Lumio classroom learning software, allowing teachers to easily integrate teaching resources from different sources and edit them, while enabling students to participate in learning in a more interesting way. SAINI and GOEL have summarized the software, hardware, and related technical support for the four main applications of smart classrooms, including content and demonstration, interaction and participation, evaluation, and physical environment. Memos et al. proposed the concept of a revolutionary interactive intelligent classroom, which provides a virtual environment for enhancing 5G based learning experiences.

### Software design of plane graphic element adaptive matching system

The hardware framework and circuit of the system designed above are taken as the equipment basis of this system design. For the error of matching the results of the original system, the system performance optimization is carried out. The image-matching operation module is added to the original system, and the optimized software module framework is shown in Fig. 2.

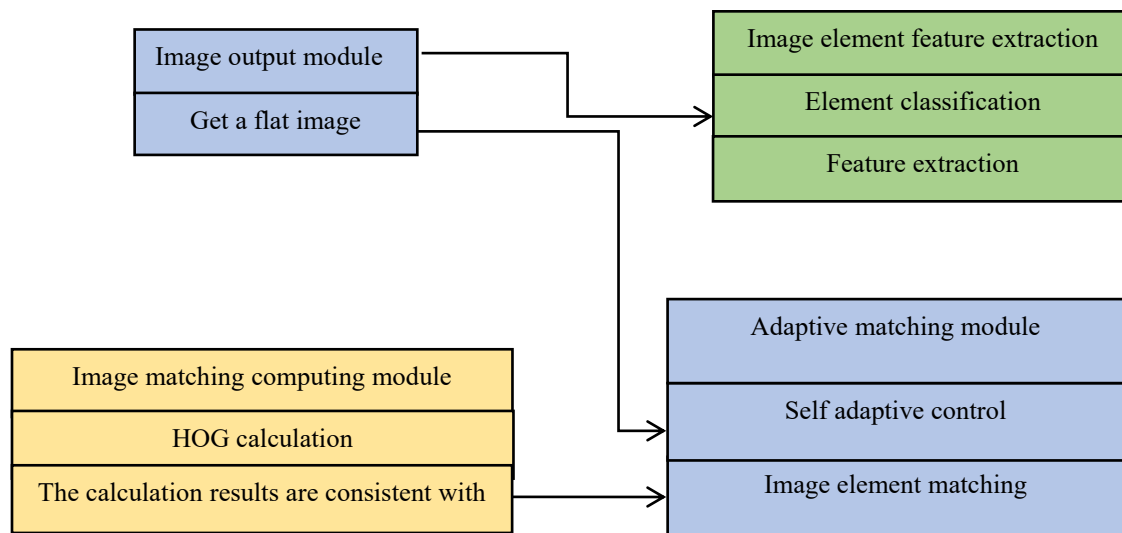


Fig. 2 System Module Architecture

### Stimulate students' interest

For visual communication design, as university leaders, it is important to have a forward-looking awareness and long-term planning. It is necessary to establish a cultural literacy system centered around cultivating interests and enhancing innovative ideas, and to innovate and plan in teaching content, design methods, cultural literacy evaluation, and other aspects. Return the initiative of learning visual communication design to students, infuse the concept of people-oriented, and encourage them to actively enhance their cultural literacy in visual communication design. The teacher team should exert subjective initiative and collective wisdom, encourage students to actively participate in cultural literacy learning, and fully mobilize their enthusiasm for learning cultural literacy. Let students enter the classroom with strong interest, make the interaction between teachers and students more meaningful and powerful, and form a joint force with students to progress and develop together.

### **Cultivate a sense of cooperation**

Firstly, through collective and team learning methods, it helps to correct the tendency of doing things or participating in activities alone, change students' psychological "lone wolf" tendencies, and achieve high efficiency in cultural literacy learning. In addition, it can help students better understand the connotation of cultural literacy, break through their own strength, form learning synergy with peers, change their existing bad habits, establish healthy values and moral sentiments for students, and guide students to better improve their cultural literacy.

### **Design a people-oriented curriculum**

We must use the concept of imagery to understand visual communication design. After understanding it, we can apply it in practice. Imagery expression is a way of expression. It is the key to unlocking the door of 'spirit and energy'. This method is also applicable to the study of visual communication design. In order to effectively improve the level of cultural literacy, it is necessary to design people-oriented courses. The courses are mainly carried out in an innovative mode, combining the Internet platform and educational resources. The main focus is on grasping the overall learning and development of students, respecting individual differences in student development, and understanding the learning methods and characteristics of students' courses. When studying retrieval techniques, literature, visual communication design techniques, and Chinese and foreign art history, guide students to deepen their experience and understanding of cultural literacy, unleash their divergent thinking and imagination abilities, and cultivate their ability to think independently and strengthen their thinking innovation.

### **Transforming traditional teaching concepts**

The ideological and moral education in universities under the new employment situation is mainly based on the talents needed in the current society, cultivating students' employment concepts from the perspective of students and improving their ideological and moral awareness. Under traditional ideological and political education, it is mainly carried out through class meetings, meetings, watching movies and writing reflections. This cultural literacy education method is too loose, and students may become bored with the education method, which affects the quality of educational work. Under the new employment situation, teachers need to change their teaching perspectives, fully respect students' independent consciousness, adopt targeted teaching methods based on students' characteristics, which is conducive to students' all-round development. The cultural literacy curriculum establishes interdisciplinary thematic learning activities, strengthens the interconnection between disciplines, drives the comprehensive implementation of the curriculum, and strengthens practical requirements. This is not only to promote the high-quality development of education, but also to cultivate composite talents that are suitable for the future development needs of the country and the nation. The curriculum optimization design, which focuses on cultural literacy, visual communication design, and integrates computer, information technology, artificial intelligence, and other content, has a positive impact on focusing on students' core literacy, facing the future, enhancing national confidence, cultural confidence, and also points out the direction for the transformation of teachers' teaching concept.

## **CONCLUSIONS**

For the current teaching situation of visual communication design major, universities still use traditional methods, focusing on textbook cases, emphasizing software skills, and neglecting the cultivation of students' creative thinking, critical thinking, and practical abilities. This teaching model is out of sync with the market, making it difficult for students to quickly get started with practical work after graduation. The use of the "real-life coupling" model can combine the construction of training rooms, talent training programs, and local enterprise employment needs, achieve multiple linkage mechanisms, introduce school enterprise cooperation into courses, and cultivate talents that meet market demand. Research has shown that the "Reality coupling" model has a positive impact on the teaching effectiveness of visual communication design.

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## REFERENCES

- [1] Zhang Huanlong, Zhang Xiujiao, He Zhendong, et al. Research on image matching method based on cuckoo search [J]. Journal of Zhengzhou University (Natural Science Edition), 2017, 49 (4): 51-56.
- [2] Fan M, Li Y. The application of computer graphics processing in visual communication design[J]. Journal of Intelligent & Fuzzy Systems, 2020, 39(4): 5183-5191.
- [3] Andriyan W, Anesti V. Visual audio communication design on the role of information technology on student lifestyle of universitas raharja[J]. ADI J. Recent Innov, 2020, 2(1): 15-24.
- [4] Xie H. Analysis of Visual Communication Function of Modern Graphic Design Based on Computer Aided Design[J]. Solid State Technology, 2020, 63(4): 8366-8374.
- [5] Li Y, Dong W, Yang Q, et al. An automatic impedance matching method based on the feedforward-backpropagation neural network for a WPT system[J]. IEEE Transactions on Industrial Electronics, 2018, 66(5): 3963-3972.
- [6] Liu L, Ran W. Research on supply chain partner selection method based on BP neural network[J]. Neural Computing and Applications, 2020, 32(6): 1543-1553.
- [7] Wang Xiaohui. Research on the teaching practice method of ethnic element pattern under visual communication [J]. Journal of Sichuan Minzu College, 2019, 28 (5): 74-77.
- [8] Hao Zhiwei. Design of adaptive control system for coal mine belt conveying based on machine vision recognition technology [J]. Coal Engineering, 2019, 51 (9): 37-41.
- [9] Trevelyan, James. 2019. Transitioning to engineering practice. Eur. J of Eng. Educ., 44, 6, 821-837.
- [10] Zhang H. and Wu C., An Analysis of Computer-Aided Design Software Course Teaching in Visual Communication Design Major by Integrating Grey Variable Weight Clustering Evaluation Model, Advances in Multimedia. (2021) 2021, 7, 6588734.
- [11] Zhang Guimei, Chen Ziheng. SIFT image registration based on adaptive fractional differential [J]. Journal of Nanchang Hangkong University (Natural Sciences), 2018, 32 (4): 1-8.
- [12] Li Qi, Zhang Xin, Zhang Pingkang, et al. Threshold sparse adaptive matching pursuit image reconstruction algorithm [J]. Journal of Chinese Computer Systems, 2018, 39 (11): 2528-2532.