

Research Article

Design and Application of Multimedia Technology-Based Curriculum for Visual Communication Majors

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The rapid change of technology has driven the information industry to advance and develop, and the computer network technology has been greatly improved, which also promotes the artistic expression of visual communication to develop in the direction of diversification and enrichment, providing designers with more sufficient performance carriers in visual communication design. As an essential communication method and medium in modern art and design, multimedia technology assumes the role of information transmission and communication in the teaching process of visual communication design and is an important communication platform. At the same time, in order to meet the market demand for talents, visual communication professional teaching is also faced with the contemporary task of cultivating innovative talents. And multimedia technology is gradually being applied in the field of education and teaching, becoming one of the driving forces to promote the evolution of teaching methods and teaching modes. Multimedia technology, as a medium of visual symbolic communication with the times, can not only expand and extend the depth and breadth of visual communication professional teaching but also promote the improvement of teaching methods and modes. This paper proposes that, against the background of continuous technological innovation, it is very necessary to further integrate multimedia technology into the teaching of visual communication majors. This paper discusses and analyzes and studies the application of multimedia technology in the teaching of visual communication from the aspect of innovative development in the teaching of visual communication.

1. Introduction

In recent years, China's science and technology and humanities education have achieved rapid development; technology is developing in the direction of high-end, and education is progressing in the direction of modernization; the development of education and technology promote each other and cannot be separated [1, 2]. Along with the rapid development of multimedia technology, the carrier tools for visual information communication are also being updated, and along with this is the teaching of visual communication design, using various cutting-edge media technologies such as multimedia, digital media, new media, and other means to carry out unique and innovative education and teaching, giving full play to the advantages and role of media

technology in the teaching of visual communication design to cultivate modern comprehensive talents effects [3, 4]. In the new round of teaching reform, the school proposes not only to innovate in teaching methods but also to completely change the traditional teaching mode of the past. To cultivate composite and application-oriented talents, we should increase the training of practical courses, constantly expand teaching resources, reduce the in-class hours, effectively increase the second and third classroom auxiliary teaching, increase the multimedia teaching methods, carry out online and offline synchronous teaching modes, and implement a multidimensional practical teaching mode.

The traditional way of teaching visual communication education has been continuously impacted by digital multimedia technology, and it has reached the point where it has

no choice but to change [5]. The form of visual communication is also gradually changing from the previous flat and static to the dynamic and networked direction. The form of communication also develops from single media to multimedia, extends from a two-dimensional plane to three-dimensional, and transforms from the previous print design to the network information image communication design. The visual communication design, which is mainly in the form of disseminating flat information, has also, under the impetus of digital multimedia technology, produced qualitative changes [6, 7]. Digital film and television advertising, Internet advertising, multimedia electronic display, interactive multimedia, and other new generations of advertising visual communication methods have quietly penetrated into every aspect of social life.

The rapidly developing digital technology and network communication technology have completely changed the thinking method, communication method, design mode, and appreciation mode of art design in real life, and multimedia technology has become an indispensable part of our life [8, 9]. We should integrate visual communication with multimedia technology and use it extensively in the teaching process.

Therefore, in the new round of talent training program, in order to meet the needs of society and the industry market for visual communication professionals, professional teaching should adjust the curriculum construction at the right time and keep up with the market requirements of advertising design, digital image processing, film and television choreography, brand packaging design, brand image design, animation design, environmental visual design, display design, public art media, cultural and creative brand design, network advertising design, interaction design, and other practical courses interspersed in different teaching processes.

2. Multimedia Technology and Visual Communication Design

2.1. Overview of Multimedia Technology. Multimedia technology has been developed rapidly with the popularization of high-speed information network [10, 11]. The technology can form an interactive logical connection system in the application process, and the objects contained in the system are mainly text, graphics, images, video, and sound. In view of the integrated role of the technology, multimedia technology itself is also a collection of diverse technologies, including writing technology, audio information processing technology, communication technology, and remote technology, etc. The development and application of these technologies have enabled all aspects of human social work and life to bask in the sunshine they bring.

Since ancient times, the media has been an important channel for the transmission and communication of information in society. With the development and innovation of information technology, diversified media with multiple functions of storage, processing, dissemination, and presentation have gradually become the tools and media for people to transmit information. Driven by the rapid

development of technology, media technology is developing in the direction of digitization, popularization, and intensive high-end and gradually becoming an important auxiliary tool in the fields of education and training, exhibition, and display. The development of media technology not only changes people's lives but also gives birth to new teaching methods. From the initial embedding of media projection in the classroom to simplify the process of image and text presentation and enhance teaching efficiency to the current use of networked and digital multimedia in teaching, the development of media technology is also promoting the transformation of teaching methods, on the one hand, providing modern tools and means for teaching; on the other hand, providing technical guarantee to promote the improvement of teaching mode.

2.2. Overview of Visual Communication Design. The rise of the visual communication design profession is inseparable from the development of China's economy and culture. Simply speaking, the visual communication design major cultivates design-oriented talents, which intend to vividly express the designer's ideas through certain expressions so that the receiver of information can fully understand a series of visual symbols [12, 13]. However, how to avoid the design from falling into the commonplace and to give the work contemporary, social, and cultural values is the key and most difficult point of teaching in this major. Visual communication is mainly the systematic, regular, and artistic arrangement of visual symbols and their presentation in the form of two-dimensional images to achieve the purpose of conveying, persuading, or teaching information by interacting with the audience's vision. Visual communication happens all the time, and people arrange visual symbols in different ways according to the laws of visual aesthetics to give people different visual experiences and thus gradually form visual communication design [14]. To a large extent, visual communication design emerged from the printing art design in Europe and the United States in the middle of the 19th century, and then passed through several stages such as decoration design and graphic design, and was driven by the evolution of media technology to form a comprehensive design discipline that includes not only traditional graphic design but also film and animation design. Looking at the development history of visual communication design, we can find that the emergence and development of media technology have pushed visual communication design to gradually evolve from flat and static to dynamic and comprehensive, and the application of media technology in visual communication design has provided multiple media for visual communication design and expanded the space of visual communication design (see in Figure 1).

The integration and development of multimedia technology and visual communication design is not only reflected in the practice of design but also in the teaching of design. More and more media technologies and their tools are applied to classroom teaching, becoming the medium for visual symbols to be conveyed. For visual communication design teaching, modern media technologies such as new

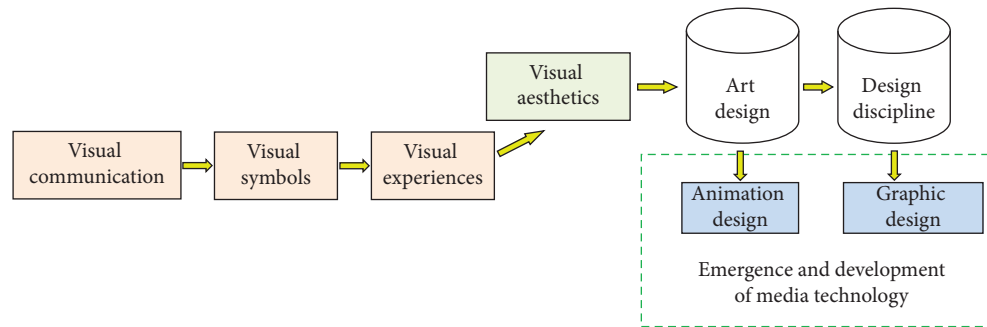


FIGURE 1: Visual communication design concept flow chart.

media and digital media have gradually become the means to update their teaching methods and improve teaching effects.

3. Problems Faced by Visual Communication Majors

3.1. The Old and Obsolete Teaching Mode. Most of the visual communication majors are developed from the former graphic design majors, so the teaching mode is still in place. Although the name has been changed, the teaching mode is still roughly the same as graphic design. This old and obsolete teaching mode has cultivated students who cannot adapt to the needs of social development, and many students have found that they have learned a very narrow employment after graduation. Although visual communication design is literally “visual” design, many people think that the focus is on the word “visual,” but in fact, the focus should be on “communication” [15, 16]. The focus of the teaching of visual communication should be to solve the problem of “how to communicate abstract and complex content information in an accurate and effective way to consumers.” The means of communication are diverse, if only at the “visual” level of meaning, which is very difficult to convey in information. It is difficult to stand out in the transmission of information if it only stays at the “visual” level. Today’s new media development is actually an era of multisensory development. As long as we can accurately communicate the information in place, it is possible to use a variety of ways, but many teachers have not been able to clearly see this. Teachers habitually teach graphic design thinking to teach the visual communication profession, so that students have a distorted concept of their own professional definition, which will lead to many students thinking that scribble uniformity and regularity of drawing are the focus.

3.2. Inaccurate Professional Target Orientation. At present, the visual communication majors in most colleges and universities still have the problem of inaccurate positioning of training objectives, which will lead to the curriculum system of the visual communication majors is not well-constructed. Nowadays, entering the era of multimedia development, visual communication design should not only focus on the basic courses of graphic design but also

on information interaction and multidimensional and multisensory design [17]. Most colleges and universities do not make much effort to reform the visual communication profession, mainly because of the understanding that visual communication is graphic design on the one hand and the weakness of the faculty on the other hand, which does not strengthen the construction of the faculty, resulting in many teachers not having enough insight into the professional forward and not being able to make accurate judgment on the direction of professional development and training goals.

3.3. Irrational Curriculum Setting. In many colleges and universities, the curriculum design of visual communication majors fails to make systematic adjustment and modification, most of them still follow the traditional curriculum design system, although some institutions have made some adjustments for the development of multimedia, such as opening corresponding software courses, or opening multimedia courses in visual communication majors, in fact, these modifications are treating the symptoms but not the root cause, multimedia is a strong professional and Multimedia is a professional, content of a wide range of systems, a single increase in one or two courses will only let students know a little skin, so to adapt to the background of the development of multimedia era visual communication courses should start from the reform of the basic courses, only then the reform is meaningful, the students will have systematic learning.

Given a rational curriculum setting, the curriculum design of visual communication majors is defined as a set $\chi = \{\kappa_j\}_{j=1,2,3}$, where J is the number of 3 multimedia courses, and the traditional curriculum design system (u, v) of the j th a-student in the multimedia environment is denoted by the vector $\kappa_j \in x$. The background of the development of multimedia era visual communication courses consists of the basic courses $\varphi_t(\kappa)$ at each stage providing confidence $S_{jt} \in R_w \times h$ for each course j , where w and h are the breadth and depth of the systematic learning, respectively, and t denotes the t th stage. The first stage of the corresponding software courses uses visual communication majors to provide confidence scores.

$$\begin{aligned} \varphi_t &= \prod \prod (\kappa|I), \\ \varphi_t &\longrightarrow \{s_1^j(\kappa_j = \kappa)\}_{j=1,2,3}, \\ \varphi_t &= \prod \prod \prod (\kappa|I) \longrightarrow \{s_1^j(\kappa_j = \kappa)\}_{j=1,2,3}. \end{aligned} \quad (1)$$

All subsequent stages generate new confidence scores using the contextual information from the previous stage.

$$\begin{aligned} \varphi_t &> \prod \prod \prod [\kappa|I, \psi(\kappa, S_{t-1})], \\ \prod \prod \prod [\kappa|I, \psi(\kappa, S_{t-1})] &\longrightarrow \{s_t^j(\kappa_j = \kappa)\}_{j=1,2,3}, \\ \varphi_t &> \prod \prod \prod [\kappa|I, \psi(\kappa, S_{t-1})] &\longrightarrow \{s_t^j(\kappa_j = \kappa)\}_{j=1,2,3}, \end{aligned} \quad (2)$$

where $S_t \in R_w \times h \times (J + 1)$ corresponds to the confidence score map of all students and the background of stage t ; $\psi(\kappa, S_{t-1})$ denotes the teacher-student communication from the confidence map S_{t-1} to a wide range of systems x . According to the above formula, we can get the curve relationship between setting of multimedia course and reform of basic courses, as illustrated in Figure 2.

4. The Role of Multimedia Technology in the Teaching of Visual Communication

4.1. Enrich the Form of Visual Communication Design Classroom Teaching. After a long period of development, visual communication design has become a comprehensive and applied discipline with unique advantages in improving the visual expression effect. Visual communication design mainly takes visual symbols as the carrier, artistic design as the means, and innovative display as the purpose and represents the visual symbols after arranging them to achieve some kind of communication, implication, and teaching [18, 19]. Of course, after the arrangement and design of visual symbols, it is also necessary to rely on certain media to display the design results. The current medium for displaying the results of visual communication design is mainly based on multimedia tools developed by media technology, which make the graphic display of visual communication design more three-dimensional and intuitive. Therefore, visual communication design is also gradually applying media technology and multimedia tools for teaching, improving the way and effect of graphic display in the classroom.

4.2. Expanding the Capacity of Visual Communication Design Teaching. The application of media technology in the teaching of visual communication design can not only change the way classroom teaching, but also expand the capacity of classroom teaching and the total amount of course teaching, which can be reflected in the depth and breadth of teaching. First of all, the use of media technology and media tools in the classroom of visual communication design can refine and condense the course content so that the course can be simplified, eliminating redundancy and leaving the essence. Secondly, the course content of visual communication design is extensive and complicated, covering a wide range of areas. In the teaching process, with the help of media technology, teachers and students can always

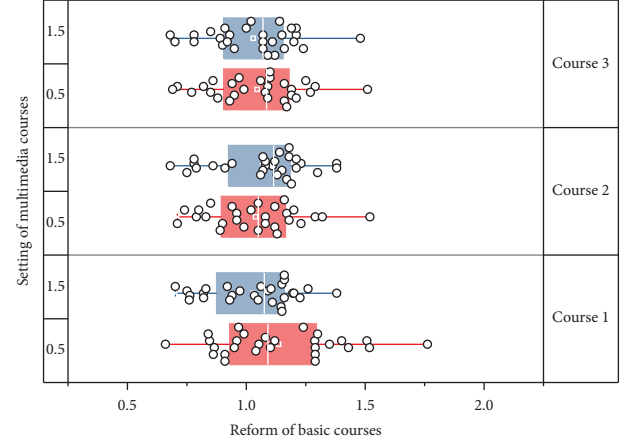


FIGURE 2: The relationship between the setting of multimedia courses and the reform of basic courses.

consult for a certain problem, and the classroom questions are answered in the classroom. In addition, teachers can use media tools to access content related to classroom teaching and expand the breadth of their teaching.

4.3. Optimize the Teaching Mode of Visual Communication Design. Teaching mode is closely related to teaching effect and talent cultivation, which not only directly affects the effect of classroom teaching but also indirectly affects the discipline cultivation goal [20]. In the current era of rapid development of information technology, we should make full use of advanced technology to improve teaching tools and teaching methods so as to enrich teaching contents and resources and improve teaching effectiveness. First of all, multimedia technology, as a platform for visual symbol innovation display, can help teachers and students understand the current development trend of visual communication design; secondly, multimedia technology has penetrated into every aspect of visual communication design teaching, becoming an essential auxiliary tool for students' learning and practice. From in-class to out-of-class, the application of media technology makes the teaching mode of visual communication design break the limitations of time and space, stimulates students' enthusiasm for independent learning, and optimizes the teaching mode of visual communication design. Figure 3 shows the flowchart of optimizing visual communication design as a teaching mode.

5. The Advantages of Using Multimedia Technology in Teaching Visual Communication

5.1. To a Large Extent, It Enriches the Teaching Content of Visual Communication. Visual communication design is a comprehensive application discipline that mainly uses graphic information as the carrier and has its own unique advantages in the expression of visual effects. Visual communication design is mainly through the visual media and visual symbols and other information to reexpress, in the performance of knowledge, and the graphic way will be more

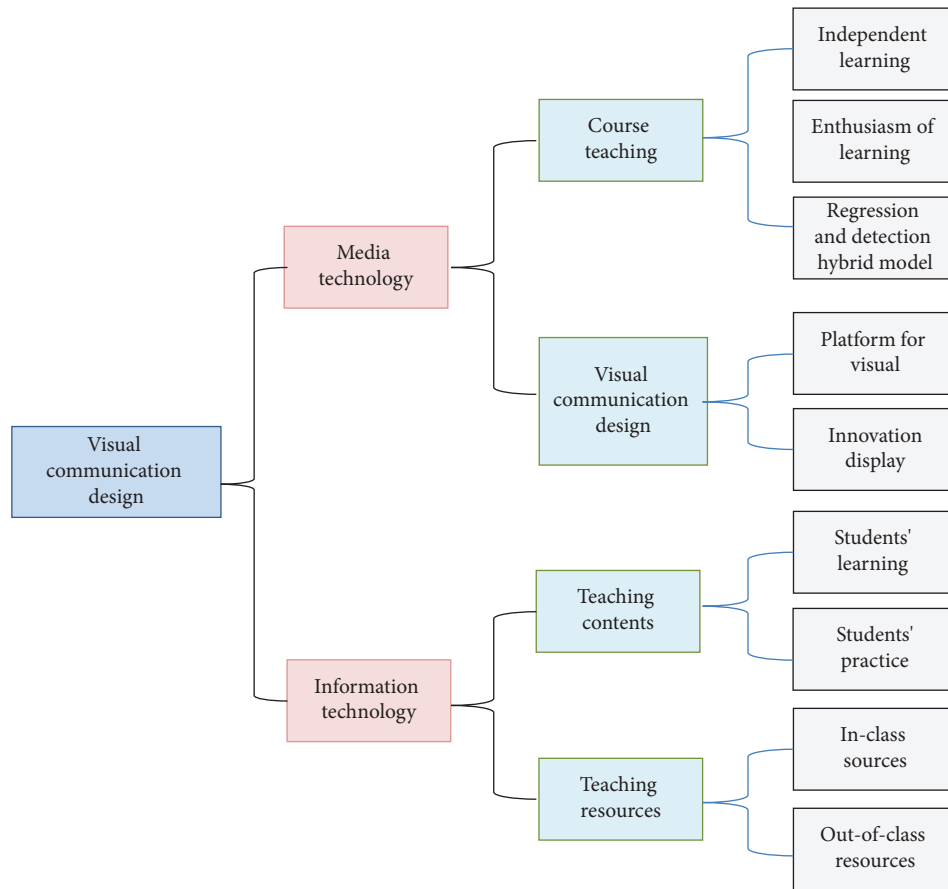


FIGURE 3: Flowchart of optimizing visual communication design as a teaching mode.

three-dimensional and more intuitive [21, 22]. Therefore, in the process of teaching visual communication design, multimedia technology should be used to make students have a more comprehensive understanding of the knowledge learned through images, animations, etc. The in-depth application of media technology will greatly contribute to the overall development of China’s education.

5.2. Optimize the Teaching Mode of Visual Communication. The teaching mode is very crucial for students, and as the communication platform of visual communication design, it should fully reflect its value, actively use the rich information resources of the Internet to achieve efficient operation, and adopt the way of graphic presentation to achieve the purpose of further promoting the development of the subject teaching. When training talents, the basic concept of education includes conceptual, quality, and skill-based, among which quality is the education method often used in visual communication effects, and its main purpose is to cultivate students’ comprehensive abilities in design. When visual communication design is reasonably applied in classroom teaching, it can effectively ensure the efficiency of classroom teaching and also create a good interactive learning environment for students so that students will not be restricted by time and place, thus largely stimulating students’ interest in independent learning.

6. The Effective Application Strategy of Multimedia Technology in Teaching Visual Communication Design

6.1. Combine Multimedia Teaching with the Teaching Theory of Visual Communication Design. The ways of communication have expanded as a result of the modern society’s ongoing advancement of information technology. The use of modern teaching methods can effectively improve the quality of teaching, but the actual application of the process of paying attention to teaching quality at the same time should also be certain to improve the quality of students and their personal comprehensive abilities. To ensure the quality of teaching indicators, it is crucial for universities not only to use modern teaching equipment in the teaching process but also to accurately grasp the learning interests of students at this stage. In addition, teachers should also continue to improve their own teaching philosophy and the teaching content and teaching methods to make certain adjustments. From the current stage of China’s education career, the actual situation, the visual communication design teaching concept has gradually penetrated into the comprehensive course of teaching, and its overall innovation has been greatly enhanced. Teachers can effectively enhance students’ independent learning ability by guiding them in teaching and also play a certain role in promoting students’ personalized growth.

6.2. Combining Multimedia Technology to Establish a New Curriculum System. Media technology at each stage of development will produce different media tools, thus creating different visual communication contexts. At present, new media and digital media are developing vigorously. In this media technology context, visual communication design teaching should find new innovation points and focus points to realize the integration and innovative development of media technology and visual communication design teaching [23]. As a comprehensive discipline, visual communication design involves a lot of contents, and the relationship between its discipline branches is like a cross-existing relationship network, with interconnection, interpenetration, and mutual influence between each node. Therefore, the primary task of innovative development of visual communication design teaching is to combine and use cutting-edge media technology to establish a new visual communication design teaching curriculum, so that the teaching content and teaching logic are more in line with the needs of talent training in the new media context and make visual communication design teaching more reasonable and scientific. The construction of the new curriculum system should fully consider the training objectives, training mode, training program and specific curriculum system so as to align visual communication design education with the market-oriented talent needs and fit with the new media context. After determining the training objectives, training mode, and training program, the design of specific curriculum system should not only conform to the logic of gradual depth from basic to professional but also add corresponding practical and innovative courses in combination with media technology, fully explore the role of media technology in different teaching courses, and finally form a systematic and scientific new visual communication design teaching curriculum system that can cultivate students' comprehensive abilities.

According to Rabiman et al. [24], visual communication design V_j is constructed to represent the deviation from cutting-edge media technology G to the needs of talent training (each deviation i corresponds to a coefficient, representing, the x and y coordinates of the position of media technology deviation respectively), and then training objectives, training mode, training program, and specific curriculum system F_k are fused to select corresponding practical and innovative courses f_k from the predicted deviation h_k . The mathematical relationship is as follows and is illustrated in Figure 4.

$$V_j = \sqrt{G[x_j + F_k(x_j) - x_i]h_k(x_j)},$$

$$f_k(x_k) = \sum_j \frac{1}{\pi R^2} V_j, \quad (3)$$

$$f_k(x_k) = \sum_j \frac{1}{\pi R^2} \sqrt{G[x_j + F_k(x_j) - x_i]h_k(x_j)}.$$

6.2.1. Adapt to the Requirements of the Times and Improve the Construction of the Curriculum System. The establishment of a multilevel, cross-sectional elective course system, the promotion of high-quality, application-focused, and sustainable curriculum group construction, and the formulation of mandatory courses as the program's core all contribute to its new talent training initiative. In the general implementation of the "advertising design" "logo design" "packaging design" "corporate image design" On the basis of the main professional courses in "book design," the courses with integration and intersectionality are added at the right time to expand the structure system of the main professional course group. For example, in the course group of advertising design, add the course "network advertising design" to meet the higher demand for advertising design talents in the network information era. For the course group of visual communication design, the courses of "information visualization design, environmental visual design, public art media, and interactive design" are added to meet the demand for talents in the dynamic visual communication industry. In the area of film and television editing, "digital image processing," "animation design," and "film and television editing" have been added to improve the skills of visual communication design students in multidimensional space and dynamic film production and performance skills.

6.2.2. Case Study Teaching. The visual communication design major started late in the development of education in China, so it should give full play to the later advantages of the teaching of the major and draw on some relatively mature and instructive design cases based on a full understanding of the actual situation of students and the current domestic teaching environment. In the process of selecting teaching cases, it can reduce the phenomenon of teachers directly copying online teaching courseware and also allow students to see the difference between domestic and foreign design works and be able to take the essence and remove the dross. The process of case teaching not only requires the use of multimedia technology to find suitable cases in the vast amount of online information but also requires further use of multimedia technology to dissect, decompose, and imitate the design of the target case. To the fullest extent possible, students' initiative should be used in this process, not only to listen, watch, and record but also to require students to do a good job of analyzing the cultural value and emotion of the design cases, in order to ensure that students' designs are consistent with the fundamental principles of our nation.

6.2.3. Activity Teaching. The typical feature of the visual communication design major is that it is more practical and requires more hands-on skills from students. Multimedia technology itself is an operation-oriented technology, so the close cooperation between the two is even more indispensable to the students' repeated practice [25]. Therefore, diverse activities can be carried out in the teaching process, such as innovative design competitions with

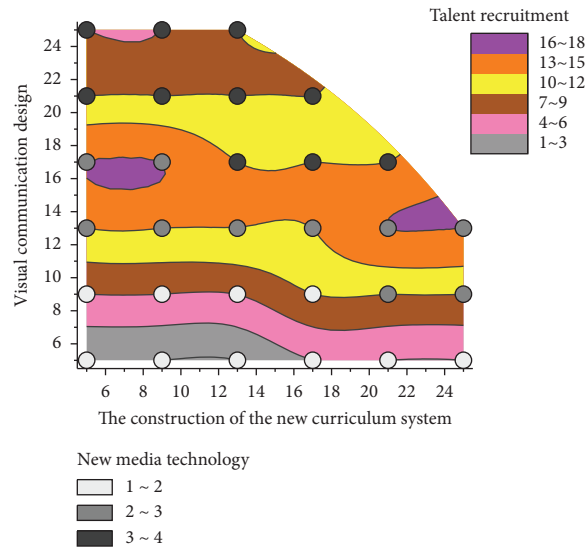


FIGURE 4: The cloud-point diagram of visual communication design and the construction of the new curriculum system using new media technology.

different themes, and the activities can target a specific knowledge point, such as text design. The rules of the competition should be as detailed as possible, including design requirements, design principles, and some finished drawings under different design difficulty factors, so as to stimulate students' exploration and pursuit of difficult designs. Multimedia technology operation activities can also be carried out in the form of competitions, which can be divided into two parts: the theoretical part is to test students' mastery of the basics of certain specific technologies, and the practical part is to test students' hands-on ability and their ability to apply the relevant technologies.

Students can do in-depth social, focused research and practice on all facets of design and development projects outside of the usual closed classroom setting, breaking the traditional closed classroom teaching model, in order to master the first-hand knowledge of the design project. At present, how to form the characteristics of the profession, visual communication design professional reform and innovation, and professional subject selection should be given full attention. This can be learned from the studio teaching model, learning to do in the middle, where the subject exists in the form of teaching can be real design projects or nonpractical project exercises, where the leading core of the art design course teaching process is the subject. The selection of the content of the topic is related to the final result of design teaching but also reflects the level of teaching ability and responsibility of the teacher. The main content of teacher preparation is to effectively make the selection of the topic and guide the teaching. Figure 5 illustrates the typical feature of the visual communication design major of activity teaching. The practice-based classroom is a supplement to activity-based education, which can also be utilized as an alternative classroom style. Teachers should respect students' subject positions while acting as instructors in the activity teaching classroom.

6.3. *Change the Training Goal in Line with the Development of Multimedia Technology.* Although the application of visual communication design to media technology is increasing, in the final analysis, visual communication design is still an artistic discipline [26]. Therefore, in the process of teaching, it is more important to cultivate students' innovative design consciousness and develop their design thinking. In the current teaching of visual communication design, the traditional teaching objectives and contents are still followed, and students mainly learn the basic theory of visual communication design and basic design practice. Although students can master modern design concepts and methods and skills, they lack the most important innovative design consciousness and ability, and the concept of "emphasizing skills but not innovation" has always occupied the main seat of visual communication design teaching. Even though media technology has been widely used in teaching, it has not changed this situation. Therefore, to achieve the innovative development of media technology and visual communication design teaching, it is necessary to clarify the goals of visual communication design teaching under a new curriculum system, to clarify the primary and secondary goals, and to divide the short-term and long-term goals. For students, the skills and methods of visual communication design are short-lived, while the awareness and ability of innovative design are the most important and long-term in their career. Nowadays, media technology continues to deepen and develop, generating more and more new concepts of media technology. We should follow the trend of media technology development, apply new media technology, such as digital media, to the teaching of visual communication design, and implant media technology into the goals and processes of visual communication design talent training. For example, on the basis of the cooperative relationship between schools and enterprises in talent cultivation, multimedia equipment is used for distance learning, thus linking school cultivation and enterprise cultivation

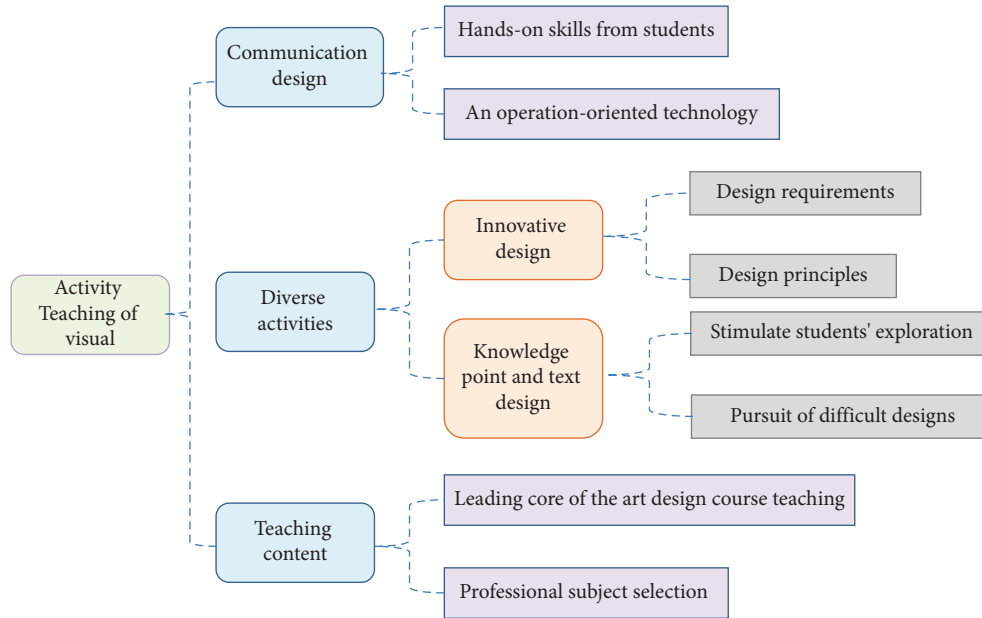


FIGURE 5: The typical feature of the visual communication design major of activity teaching.

more closely and enhancing the mobility and sustainability of both cultivations, so that students can clearly understand the changes in the talent market and the demand for talents in the visual communication design market, so that they can follow up their studies with direction and goals and improve their professional ability. According to the statistical data, the relationship between the demand for talents and the development of multimedia technology is drawn (Figure 6), including the separation and close relationship between schools and enterprises. It can be seen from the Figure that the closer the relationship between schools and enterprises in talent training, the more accurate the demand and guidance for market talents.

6.3.1. *Forming Professional Characteristics with Clear Training Direction.* This major cultivates high-quality applied professionals with integrity and professionalism, innovation and entrepreneurial consciousness, solid basic theoretical knowledge of visual communication design, mastery of the basic operation knowledge of enterprises and markets, and strong abilities in graphic design, new media design, brand image design, and production to meet the needs of the Internet era and the development trend of integration of art and design with other disciplines and professions. Visual communication design is the main research direction of graphic information communication in two-dimensional and three-dimensional space. The training of talents should meet the market demand of traditional industries such as books, advertisements, packaging, and brand image while at the same time meeting the new demand for visual communication design in the current digital multimedia era.

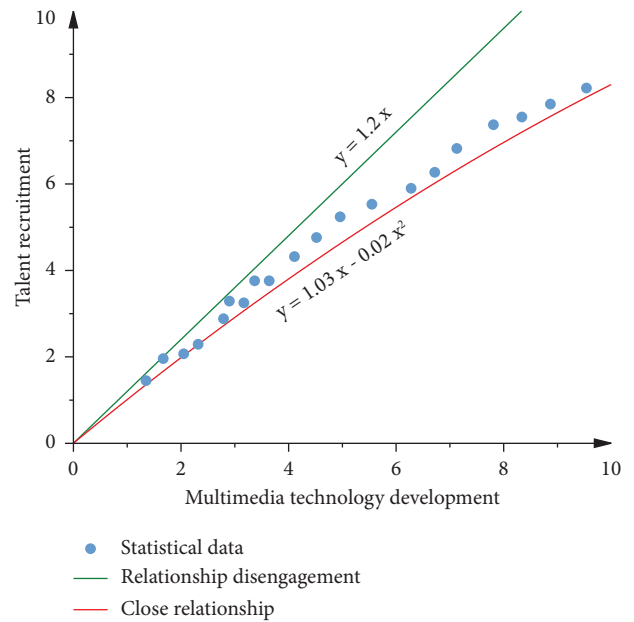


FIGURE 6: The relationship between the demand for talents and the development of multimedia technology.

6.3.2. *Focus on Cultivating High-Quality, Compound, and Application-Oriented Talents.* In response to the current demand specifications of society for visual communication professionals, we promote the intersection and integration of multiple disciplines and expand the scale of cultivation of applied, composite, and skill-oriented talents. The visual communication design major expands on the highly complex intersection and integration of natural disciplines and the humanities, social life and economic life, art and

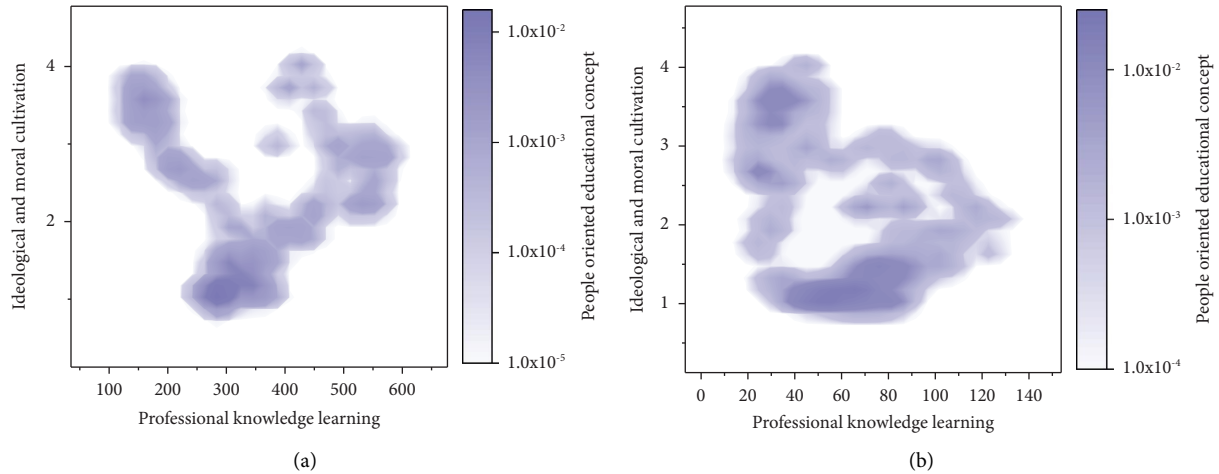


FIGURE 7: Cloud chart among people-oriented educational concept and professional knowledge learning and ideological and moral cultivation. (a) Teaching units A. (b) Teaching units B.

technology, etc. Cultivating high-quality applied professionals with multidimensional knowledge structure and comprehensive cross-application talents who can adapt to the development trend of art and design and other disciplines and professional integration is the focus of talent cultivation in the visual communication design major. The cultivation of talents in visual communication design is not only to make students master the knowledge and skills in the technical field of the profession but also to focus on the cultivation of comprehensive ability, humanistic quality, and self-development so as to realize the cultivation goal of high-quality, application-oriented professional talents.

6.4. To Pay Attention to the Coordinated Development of Science and Technology and Humanities in the Process of Developing Multimedia Teaching. The rapid development of multimedia technology also makes it more convenient and intuitive for people to understand information, but also because of the highly developed information technology, many people have a blind worship of multimedia technology, the applications of multimedia technology are expanding, people's daily lives began to rely too much on multimedia information technology, and the connection between people began to dilute. In the process of classroom teaching, over-reliance on multimedia technology will lead to the gradual dilution of the relationship between teachers and students, which is also not conducive to the development of educational teaching activities. Therefore, it is very important to realize the coordinated development of technology and the humanities. At this stage, as the level of China's technological development continues to rise, many students' moral concepts and their awareness of understanding the world around them have gradually become weaker, and some students appear to value skills over morality and have prejudice against cultural knowledge, which is not conducive to students' future healthy growth. Therefore, when teachers carry out teaching activities, they should not only focus on the teaching of relevant

professional knowledge but also pay attention to the teaching of ideology and moral culture, find a balance between the two, and strive to put the "people-oriented" teaching concept throughout the entire education and teaching activities, which will greatly help to improve the overall quality of students.

A people oriented educational concept (P) is chosen to measure the comparability between the teaching of professional knowledge and the teaching of ideological and moral cultivation, and the formula is

$$R_i = \sum_i e^{(-d_{pi}^2/2S_p^2\sigma_i^2)\delta} + \ln \left[\left(\frac{d_{pi}^2}{2S_p^2\sigma_i^2} \right) \delta \right]$$

$$P = \frac{R_i}{\sum \delta}, \quad (4)$$

$$P = \frac{\sum_i e^{(-d_{pi}^2/2S_p^2\sigma_i^2)\delta} + \ln \left[\left(\frac{d_{pi}^2}{2S_p^2\sigma_i^2} \right) \delta \right]}{\sum \delta},$$

where p is the ID of the certain student; i is the ID of the key point of students' moral concepts; d_{pi} denotes awareness of understanding the surrounding world between the i -th models predicted by the p -th comprehensive quality of students; S_2 denotes the healthy growth of students; σ denotes the normalization factor of prejudice against cultural knowledge; ν denotes the development of science and technology and humanities; and δ is the selection function of goals of healthy growth of students. According to the above formula, it is easy to see that the use of multimedia means can effectively improve students' writing ability and significantly narrow the gap between the sample writing and students' own works (see Figure 7, taking two sample teaching units a and B as examples for details).

Therefore, in the process of seeking innovative development of media technology and visual communication design teaching, the relationship between media technology and visual communication design in teaching should be well

coordinated so that students understand that media technology is only a means and tool to achieve innovative presentation and innovative design of visual communication. To sum up, at this stage, teachers in the process of teaching visual communication design should make use of media technology and information resources to fully improve the course content and maximize the choice of teaching methods that are compatible with the discipline.

6.5. Pay Attention to the Interface between Traditional and Innovative Teaching Methods. The traditional teaching concept has a very obvious reflection in the process of unfolding educational activities in China. Although the modern multimedia visual communication teaching method has many obvious advantages compared with the traditional teaching method, it does not mean that it can completely replace the traditional teaching method. Some technologies and application theories for multimedia are still in the early stages of development. To ensure the overall stable development of the education sector, it is important to effectively integrate traditional teaching methods and modern teaching methods.

7. Conclusion

In addition to being the result of the economy and the market, modern visual communication design is a product of culture. Visual communication design will have a ton of room to grow as we transition into the information society, and while it does so, it will also face a number of fresh obstacles. With the continuous development of science and technology in China, visual communication design has been applied in many advanced platforms and has achieved more ideal results. However, for China, this technology is still in the development stage, and there are still many places that need to be improved. Teachers should pay attention to the active application of multimedia technology and resources when teaching visual communication design in order to ensure the quality of teaching on the premise of achieving the purpose of efficient teaching. This has a great effect on cultivating students' interest in learning, and the application of multimedia technology in the teaching of visual communication design will certainly be recognized by more people.

To achieve the innovative development of multimedia technology and visual communication design teaching, perfect multimedia equipment, constantly updated multimedia technology and scientific and professional teaching activities and teaching content are indispensable. Therefore, schools should improve relevant teaching facilities and enrich teaching activities; teachers should improve their professional quality, strengthen their ability to select topics and prepare lessons, and improve their operation level of multimedia technology; students should give full play to their subjective initiative, explore their creative potential, and ensure the close integration of theory and practice. We must constantly reform the previous teaching mode with a new concept, keep up with the market dynamics, make

visual communication design education develop with the society, economy, market, culture, industry and aesthetic needs, and keep pace with the design market while keeping pace with international visual communication design education.

Data Availability

The data used to support the findings of this study are available from the corresponding author upon reasonable request.

Conflicts of Interest

The authors declare that there are no conflicts of interest.

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