

Research on Visual Design Professional Model and University- enterprise Cooperation in Universities

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Abstract

Visual communication design major is an important part of artistic design. In recent years, the visual communication design major is booming, and the social demand for professional talents in this industry is also greatly increased. The enrollment scale of students majoring in visual communication design in colleges and universities is constantly expanding. In this situation, many colleges and universities have adjusted the direction of the professional structure, scrambling to open the graphic design major or the design major with the characteristics of this major. With the increasing enrollment scale, the teaching quality does not seem to improve accordingly, and there is a certain degree of disconnection between design education and market demand, and design education seriously lags behind social practice. Therefore, how to establish a "community" -- school-enterprise cooperation, is worth exploring, studying and thinking. To strengthen university-enterprise cooperative teaching and promote the connection between design education in colleges and universities and social needs, we should not only introduce relevant market consciousness, but also make breakthroughs and innovations in teaching and change to the direction of training practical and skilled talents, which is also the demand of the changing society and market.

Keywords

Visual communication design, professional mode, school-enterprise cooperation, vocational education.

1. Research background

Diversification of Vocational Education

In recent years, electronic products have developed rapidly, and the design in this field has also developed from static to dynamic. Through these innovations, it not only helps to expand the designer's imagination space, but also enables the audience to get a better visual experience in the process of information transmission (mayuling, Yan Zhili, 2021).

Mode of school enterprise cooperation

Sujianfeng (2021) said in his research that domestic higher vocational education has developed rapidly, which can significantly increase the teaching quality. School enterprise cooperation is an important measure. Through school enterprise cooperation, the professional teaching of vocational schools can be closely related to the actual positions of specific enterprises, which can provide students with more practical opportunities and improve their theoretical level. However, the cooperative teaching mode in vocational schools has some problems, such as formalization and simplification. It is not satisfactory in cultivating students' professional and practical ability. Therefore, it is necessary to improve the mode and significantly improve the teaching quality.

2. Research objective

Purpose of school enterprise cooperation

For the traditional visual design specialty, vocational schools can introduce this cooperation mode, clarify the teaching objectives in this process, and then optimize the teaching courses to realize the integration purpose.

The importance of school enterprise cooperation

Higher vocational colleges are undoubtedly an important cradle of talent training, and attach great importance to the skills and theoretical teaching of scholars. However, according to the current social development, there are more and more students in higher vocational colleges, and the social employment is limited, so it is difficult to meet the needs of these scholars. The ability to innovate and start a business can enable students to have a good way of thinking and social practice ability, And integrate all social resources to create higher value. School enterprise cooperation can provide more levels and ways of practice for cultivating students' innovation and entrepreneurship ability in higher vocational colleges, and both schools and enterprises can carry out technical cooperation together.

3. Overview of professional development of visual communication design

According to the evolution of visual communication design, this paper mainly analyzes the concept of visual design, the category and trend of professional development.

Meaning of visual communication design:

The professional mode includes what we call the form of education and teaching, usually the online and offline teaching mode. We also have the specialty of equipment and course design. According to different needs, to meet different needs, we also have his professionalism in software learning.

Development trend of visual communication design

Dinghuihe (2021) analyzed in the literature that by the middle of the 19th century, visual communication design had been widely expanded in the world, and had been better displayed in the art design links in Europe and America. Slowly entering the 21st century, China also attaches great importance to the development of visual communication design, and combines visual language with artistic creation, making modern communication technology better developed.

4. Research on the training mode of visual communication design professionals

The following is a study of some patterns of visual design. According to different patterns, we can draw the conclusions we want.

Online teaching mode of visual communication design

Zhao Qi (2021) summarized the problems and analyzed the schemes according to the students' design works. Teachers can watch students' design works online and make detailed comments by using the diversified online teaching platform. With the help of network resources, teachers can expand the horizons of scholars, understand the wide area design trend content and improve students' aesthetics.

Offline teaching mode of visual communication design

Ma Lan, zhengzhigang and Bruce Lee (2020) used online resources and platform advantages as the course implementation process, while the explanation of theoretical knowledge and face-

to-face guidance of design works focused on offline teaching, which is also an important advantage of offline teaching.

5. Characteristics of Higher Vocational Education

Industry education integration and school enterprise cooperation

School enterprise cooperation and integration have become an important mode of current vocational education, and also a key content to strengthen the construction of vocational education organizations. The research on "integration of industry and education" can be traced back to 1965, when Philip J. Foster proposed it in the vocational school fallacy in development planning. In China, the national policy of promoting industry university research cooperation and industry university research integration has been developing continuously. In 2005, the national professional work conference took the lead in putting forward the concept of "school enterprise cooperation", and in 2013, the country further put forward the concept of "integration of industry and education". Two years later, the Ministry of Education launched "Guan", which further stated that the two concepts should go hand in hand, provide important support for industrial upgrading and education reform, enhance the important position of enterprises in the two concepts, clarify the industrial positioning, improve the scientificity of evaluation, promote enterprises to fully participate in talent training, and truly implement school enterprise cooperation.

6. Discussion on University Enterprise Cooperation

The meaning of school enterprise cooperation

In essence, school enterprise cooperation is to ensure that both parties can complement each other's strengths and weaknesses. In the aspect of school enterprise cooperation, it is mainly to set up various orders and cooperative classes for training and teaching, pay attention to school learning and enterprise practice, better meet the dynamic needs of the market, better combine practice with theory, and then cultivate richer talents for the society.

The importance of school enterprise cooperation

Yangyuquan (2021) said that the school enterprise cooperation is very suitable for the current social needs. Through the cooperation, the school can more comprehensively grasp the needs of enterprises, and then provide targeted training for them. According to the market orientation, the school attaches great importance to the students' practical ability, so as to cultivate more required talents for the society. The respective advantages of schools and enterprises can also complement each other, so that the cost of education and enterprises can be well saved, which is an important win-win model at present.

Current situation of school enterprise cooperation in Higher Vocational Colleges

Li Yu and Tian zhongzi (2021) believe that many higher vocational colleges in China have established close cooperative relations with enterprises, but the depth of cooperation is shallow and lack of depth. In addition, there are different quality levels in the combination of work and study at different levels of colleges. The specific reason is that higher vocational colleges pay more attention to forms in the cooperation links and neglect the contents to varying degrees. Moreover, there is a lack of corresponding policy support for in-depth cooperation.

7. Exploring the relationship between visual design specialty and school enterprise cooperation in Colleges and Universities

Mechanism analysis of school enterprise cooperation in visual communication design

Training mechanism - establish a talent cooperation mechanism in the form of talent cooperation to meet the current needs of the company, which is undoubtedly an important measure to promote the effective interaction between schools and enterprises.

Practice mechanism -- integrate the practice and graduation design of the enterprise and the campus, and then innovate the professional practice teaching mode. Encourage more students to participate in discipline and skill competitions in different industries, so as to significantly improve their professional practice ability and skill level.

Communication mechanism - the introduction of diversified design methods in visual communication design, the deepening of cooperation between teachers and the positive interaction with the company have promoted students' professional skills. Various training centers have been set up to carry out innovation, research and development with industry and government associations, so that students can have an in-depth understanding of the specific needs of the industry.

8. Put forward effective strategies for cooperation between design communication design specialty and school enterprise in Colleges and Universities

Clarify the teaching objectives of visual communication design and adapt to the school enterprise cooperative teaching mode

Zhan Pengwei (2016) proposed that although the school enterprise cooperative teaching mode is an improvement of students' practical ability, students must have certain professional skills to adapt to the school enterprise cooperative teaching mode. The cultivation of professional skills mainly depends on school education, so we should clarify the teaching objectives in the teaching mode and teaching method.

Optimize teaching content

In the traditional teaching of this design major, the teaching content is generally based on the actual teaching materials and teachers' teaching experience. Lijianfang and lijianxian (2014) believe that this teaching method can enable students to master basic knowledge and theoretical knowledge to a certain extent, which also leads to significant restrictions on students' thinking. In the work of related enterprises, customers' requirements for the design are diverse.

9. Questionnaire design

Based on the evaluation of the effect of school enterprise cooperative education and training, a questionnaire was designed to investigate the undergraduates of C University in Chongqing. The number of randomly distributed questionnaires reached 300, and the number of effective questionnaires recovered was 270, with a total effective rate of up to 90%. Chongqing college students were taken as objects, which was quite consistent with our theme because many students were in the process of employment and internship.

10. Reliability and validity analysis of the questionnaire

Reliability test of questionnaire

In order to improve the reliability of the scale, this paper uses the reliability experiment, which involves the Cronbach coefficient(α), If the coefficient exceeds 0.9, it means that the scale has high reliability. With the help of the two evaluation indicators of output type and input type, and their consistency test, the α The coefficient reaches 0.927, as shown in table 1-1. It shows that the questionnaire has high reliability.

Table 1-1 Cronbach reliability coefficient of the scale

factor	Cronbach coefficient	Number of items
whole	0.927	10
Input type	0.905	8
Output type	0.914	2

Questionnaire validity test

Bartlett and kmo tests are performed on the most original information. The latter is 0.872, which exceeds 0.7. For the statistics of the former, there is a significant probability, that is, P value, which is 0.02, which means that it is smaller than 0.05. The corresponding questionnaire has factor analysis conditions and structural effectiveness. For example, see the table below for details. There are 6 principal components with eigenvalues exceeding 1, and the cumulative variance rate is 89.6%. In addition, according to the table below, the load value of these principal components exceeds 0.6%, and the reliability of the corresponding questionnaire is relatively high

11. Statistical description

Based on the questionnaire and literature method, the relevant variables are selected, and the variables are subdivided into input and output variables. The former can be regarded as the condition to meet the expected effect, while the latter is to meet the expected training effect. Both of these can be used as important training indicators. In addition, the connotation of variables is scientifically defined, and variables are dynamically detected based on the perspective of questionnaire design.

On the basis of sample data processing, with the help of spss21.0 system, the data are counted and the following table is obtained. The small standard deviation of different variables can reflect the dynamic range of the data, and it is concluded that the distribution of samples has high uniformity. In terms of help and satisfaction, the average is close to 3, which means that students have a high support rate for this cooperative teaching mode. The average values of KJ and DK are 3.2 and 3.27 respectively, which means that many students say that there is a very close correlation between the professional level of enterprises, the distance from schools and the training effect of practical education bases. Through the variable values of ZZ and DS, many cooperative companies have configured the corresponding tutors, and the corresponding colleges have also created specific joint organizations.

Table 1-2 descriptive statistics

variable	N	Minimum value	maximum value	average value	standard deviation
(dk)	270	1	4	3.27	0.165
(kj)	270	1	4	3.20	0.379
(sj)	270	1	4	3.21	0.120
(ds)	270	1	2	1.55	0.300

(jd)	270	1	4	2.67	0.264
(xy)	270	1	2	1.56	0.398
(zz)	270	1	2	1.48	0.502
(jf)	270	1	4	2.64	0.434
(bz)	270	1	4	2.90	0.240
(my)	270	1	4	2.99	0.142
(List status)	270				

With the help of empirical analysis, this paper analyzes the factors affecting the training effect of this cooperation base, and defines the relevant measurement indicators. In this paper, spss21.0 system is used to conduct multivariate analysis of data, and further analyze the in-depth impact of input-oriented indicators on output-oriented indicators. In the following table, the multiple regression structure is shown, from which it can be concluded that my is regarded as satisfaction and used as the explained variable. At the 0.1% confidence level, DK coefficient is positive and significant. This means that there is a positive correlation between the professional matching degree and the satisfaction of cooperative practice experience. If the positions provided by the enterprise are highly matched with the majors of specific students, the better the training effect will be. These coefficients are significant at 0.05, and the confidence level is positive, which means that the closer the distance between schools and enterprises, the higher the satisfaction of students; If higher vocational students get the guidance of enterprise masters, they will have higher satisfaction and the corresponding training effect will increase; The more training bases there are, the more choices students have, and the higher their satisfaction will be; Alumni relationship will better promote the construction of school enterprise cooperation base. Therefore, the more alumni, the higher satisfaction will be. There is a significant positive correlation between teaching investment and satisfaction, which means that the investment will play a significant positive role in improving the training effect of the cooperative base, which verifies the hypothesis 1. The help degree is expressed by BZ, which is regarded as an explanatory variable. The confidence of XY, JD and DK is positive at 0.05, which is obvious at 0.05. Specifically, the company's position has a higher counterpart with the majors of higher vocational students, so the more corresponding practice bases and the more alumni of cooperative enterprises, the more obvious the role of school enterprise cooperative practice experience in students' future employment, It verifies the previous hypothesis 2. When these coefficients are below 0.01, their confidence level is positive and significant, which means that the closer the distance between schools and enterprises, the longer the practice time can be obtained for scholars, and the existence of relevant organizations can significantly promote the cultivation of the quality of higher vocational students. DS and JF coefficients, under 0.1, are significant, and the confidence is positive, indicating that the allocation of enterprise tutors and a certain amount of investment can promote the training effect.

variable	Experience satisfaction of school enterprise cooperation			Experience satisfaction of school enterprise cooperation		
	coefficient	t	p	coefficient	t	p
dk	0.006***	4.25	0.001	0.236**	8.01	0.104
kj	0.463**	7.34	0.028	0.383***	9.21	0.080
sj	0.732*	4.21	0.021	0.137***	3.09	0.051
ds	0.055**	0.58	0.015	0.041*	4.02	0.211
jd	0.217**	2.39	0.013	0.020**	1.06	0.036
xy	0.209**	2.07	0.009	0.070**	3.23	0.048
zz	0.055*	3.28	0.056	0.222***	2.97	0.093
jf	0.027**	5.64	0.003	0.122*	5.32	0.051
F		105.8			217.4	
R2		0.411			0.409	

Note: *** means significant at 1% confidence level** Means significant at the 5% confidence level* Indicates significant at 10% confidence level.

The evaluation index design of the training effect of the base needs to be carried out in close accordance with the empirical analysis results. This paper analyzes the training effect evaluation index from the perspective of input and output.

12. Questionnaire survey and empirical analysis results

Input and output indicators have a significant positive correlation. At the same time of promoting the practical education of school enterprise cooperation, students should be equipped with enterprise tutors, so that students can get more guidance in specific practical links; It is necessary to establish a joint organization to lead the cooperation between schools and enterprises, to carry out unified and efficient management of the cooperation, and to fully realize the connection between the enterprise's job demand and the professional counterpart; To achieve the expected training effect, it needs a certain amount of funds. At the same time, when selecting cooperative enterprises, on the premise of ensuring quality and effect, priority should be given to enterprises close to the school to facilitate students' work and study. For schools, enterprises and governments, in order to better carry out cooperation, it is necessary to make school enterprise cooperation feasible and scientific, and formulate feasible policy mechanisms and innovation systems based on relevant factors according to the needs of school enterprise cooperation, so as to improve the innovation ability of school enterprise cooperation. Finally, we hope to get more data and conduct more in-depth research in the future.

13. Connecting the past and the future, thinking of the source and the future

This paper clarifies the connotation of the cooperative development between universities and enterprises, reviews its development history, introduces the characteristics of school

enterprise cooperation in typical foreign countries, takes Chongqing C University as the object, selects students majoring in visual communication design, analyzes the talent training mode of school enterprise cooperation, summarizes the experience of developed countries, and concludes that the depth of this cooperation mode is still lacking, Then the forming factors of this problem are analyzed, and the following conclusions are drawn through the research:

(1) This cooperative training mode is closely related to social and economic development and design education. It conforms to the cognitive law of "practice cognition practice", the theory of "the combination of education and productive labor" and the theory of experiential learning.

(2) In order to make the school enterprise cooperation of visual communication design major in Colleges and universities achieve progress and development, it is not only necessary for colleges and universities to make unremitting efforts to operate the talent training mode of school enterprise cooperation in a real sense, but also need the close cooperation of the company. Only through the joint efforts of various parties, can the school enterprise cooperation of visual communication design major in Colleges and universities achieve progress and development.

Experience

To carry out school enterprise cooperation, it is necessary to have an in-depth understanding of the characteristics of relevant enterprises, industries and specialties, so as to find cooperation opportunities to the greatest extent. In order to implement the cooperation in the later stage, it is necessary to have a complete set of cooperation schemes and implement them one by one, which can not just float on the surface. The main bodies of both schools and enterprises need to adhere to the principle of mutual assistance. At the time of specific cooperation, the importance of enterprises is the most prominent. The development of school enterprise cooperation requires colleges and universities to think about problems for enterprises from the perspective of enterprises, take the initiative to undertake relevant tasks and reduce work pressure for enterprises. The state needs to use legal regulation to protect the rights and interests of enterprises in the system. School enterprise cooperation is a typical two-way activity, and they are also a community of interests. To develop the cooperation in a deep direction, we must adhere to the principle of mutual benefit.

Introspection

The enthusiasm of enterprises participating in school enterprise cooperation is not high

The attitude of enterprises to participate in school enterprise cooperation has a great impact on practical teaching. In the early stage of the enterprise, on the premise that the internship students can not create rich benefits for the enterprise for a long time, they also need to have large capital investment and personnel investment, which will inevitably lead to their lack of enthusiasm to participate.

The development of school enterprise cooperation and innovation practice in visual communication design is lack of standardized implementation scheme

The content of school curriculum system is out of touch with practice, and the practice of school enterprise cooperation is shallow. The practice of design needs continuous exploration and discussion, rather than overnight; The teaching system lacks a standardized training program, the proportion of theoretical and practical learning. Theory needs to be integrated with practice, and practice needs theoretical support. In the specific cooperative innovation links, the point and degree of teaching need to be considered; The school is inflexible in the operation mechanism of school enterprise cooperation. In the process of school enterprise cooperation, the school has a high enthusiasm for participation, does not have a mature understanding of the cooperative education idea, the form of school enterprise cooperation is not deep enough, the cooperation lacks a perfect management system, the relationship with enterprises is not

stable, and there is a lack of strict system guarantee system to ensure the benign operation of school enterprise cooperation.

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