

Under the “Two Integration” the “Adaptation” Direction of Industrial Design Professional Curriculum System

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Abstract - The phenomena appearing in the undergraduate course teaching of industrial design under the “Two Integration” and the existing problems exposed the “vague” of the goal of industrial design professional curriculum, the “obsolete knowledge” of the curriculum content, the single mode of the curriculum implementation method, the lack of the course evaluation mechanism and so on, also these problems directly lead to the narrow range of knowledge students could accept, and so that the students are not relatively satisfied with the course. As to its reason, by the SWOT analysis method, this study combines the “internal” cause of the curriculum itself development with the “external” cause of social development and the changes, then it tries to find out the basic reason and puts forward the “adaptation” direction of the curriculum system reform.

Index Terms - two integration, course system, adaptation

1. Introduction

In the aspect of the whole society evolution, human society has experienced from the traditional agricultural society to the modern industrial society then to the modern information society. And Chinese modernization development path graph of He Qichuan presents the modernization development path, for example, the process of industrialization, knowledgeablization, informatization and so on. As shown, at present, the western developed countries have basically completed the process of the industrialization, and they are now in the process of rapid development of informatization. While after trying hard for half a century, our country develops from a backward agricultural country to a industrial system country with a part of modernization level and national economic system country, however, from the overall, Chinese current economy is in the middle stage of industrialization, even the industry is still the mainstay of the national economy, then the industrialization realization is our unfinished mission. At the same time, the information technology revolution has brought us the informatization opportunities. Therefore, we should consider our national conditions, and then we take the fusion road of informatization and industrialization.

2. SWOT Analysis of Industrial Design Specialized Curriculum System under the “Two Integration”

For the “two integration”, based on the SWOT this paper analyses the differences between the present situation of Chinese industrial design curriculum and the goal, then it looks for the potential opportunities for the curriculum reform which are greatly necessary.

The SWOT analysis method is a basic method of

modern management strategic planning, and the SWOT fully analyses the present various conditions of the enterprise, and it finds out the obvious advantages and disadvantages in the enterprise, also it will find out the reflecting fields of the enterprise’s core competitiveness. Later S and W refer to the internal factors, while S refers to the advantages of the enterprise, on the contrary W refers to the disadvantages. And O and T refer to the external factors, then O refers to the development opportunities that the enterprise should utilize and T refers to the threat the enterprise meets.



Fig. 1 SWOT analysis of the differences between the present situation of curriculum system and the goal

SWOT analysis is greatly suitable for the analysis of the differences between the industrial design educational curriculum and the goal. And the present situation of our curriculum equals to the internal factors of the curriculum, then the curriculum problem equals to the disadvantages as well as the curriculum characteristics equal to the advantages. Even the exploration of the foreign curriculum reform and the appeal from the social to reform the curriculum, equals to the curriculum external factors, where there are potential opportunities and threats. In the aspect of philosophy, using the SWOT method to analyse the differences between the curriculum system and the goal, in fact it regards curriculum advantage as the internal good features, and it regards curriculum disadvantages as the internal bad features; while it regards the external opportunities as the external good features, then it regards the external threats as the external bad features. So this method combines advantages with disadvantages of the internal factor and external factor to comprehensively analyse the problem, and it is a analysis model with full dialectical thinking.

A. Strength analysis

In aspect of the current situation, when our country’s industrial design specialized curriculum system tries to meet the design demand of the enterprise, however there isn’t any advantage in it. But our country pays enough attention to

the research of the curriculum system since the industrial design education starts.

B. Weakness analysis

The existing problem in our curriculum's present situation has revealed the disadvantages of the curriculum. If by inspecting under the "two integration", the disadvantages are more than the advantages. Specifically the disadvantages present in the following aspects.

1) The lag of industrial design specialized curriculum system

The goal of the industrial design specialized curriculum system falls behind the quality of talents demand getting from the social changes, and the knowledge of the curriculum content is obsolete, also the curriculum structure is out-of-balance, the way of curriculum implementation is single even the the curriculum evaluation is lack of mechanism. Then the concept of industrial design specialized curriculum education failed to organically integrate with Chinese existing context; and the curriculum system fails to show the obvious innovative characteristics, such as it fails to solve practical problems, and it is lack of experience, innovation and so on; even there are great differences on the design practice's times characteristics of the curriculum system, especially the systematicness and the complexity of the industrial design practice under the "two integration", the professional status of design which is as the solution to the human life challenge in 21 century, and the trend that design promotes the sustainable development of human, nature and society haven't received enough attention in the curriculum.

2) The role transformation of industrial design educators is not significant

Under the the social background of "two integration", the roles of industrial design educators are changing dramatically. Traditional industrial design teacher is the one with pure knowledge and design experience to teach others and solve theirs problems, while under the new context, the society needs active guide and formulator of information resources instead of passive one. And the development of network information becomes more and more rapid and fair. Even there isn't difference on the information resources owned by both teachers and students, therefore the knowledge structure of teacher is challenged. So the teacher should transfer to the use, guide and recreat of information.

3) The lack of the construction of students' design knowledge system

Under the the social background of "two integration", when the industrial design graduates work in the enterprise, they have to meet the problem that is to update the knowledge in a great degree, and when the enterprise improves its competitiveness, at the same time it needs industrial design education to bring in more market research content, for example marketing, design management, lifestyle research, user research, information interaction and

so on such courses are still the lack of knowledge system of industrial design students.

4) The lack of information ability

The connotation of "two integration" includes the different layer integration of product composition layer, industrial design layer and so on during the production process, and the "two integration" makes full use of information technology and it combines the information resources with industrialized production mode. While the industrial production informatization is the core, and corresponding the information ability of industrial design professionals is essential. To adapt to the "two integration", the professionals should have the abilities such as information literacy and information consciousness, and they should be able to masterly use the information technology and tools, also they should have the strong abilities to gain information, analyse, screen handle the problem and create, however, all these above are lack so much.

C. Opportunity analysis

1) Social transition opportunity

Nowadays the world turns from industrialization to informatization, and the information technology keeps developing, even it plays a more and more important role in the increasing development of economy and society. Now our country is in the special period of "two integration", and we have the advantages getting from the update information technology once in a blue moon, then the advantages will help the design education have the great-leap-forward development. Meanwhile the teaching mode, means and methods of traditional industrial society design education are influenced by the diversified curriculum implementation ways, such as multimedia, network information and other modern information technology. The ultra conventional development of industrial design education has two opportunities, one is that it becomes a reality the allocation of education resources achieve greater output than before, because shared educational resources can make the efficiency of learning knowledge and mastering skills greatly improve; the other is that the transformation of the society redefine industrial design talents will make the current subject development has more plasticity.

2) The development of design subject

Curriculum development opportunity is from external environment. From the guarantee of teaching quality in university, the enthusiasm of our university design education

curriculum reform has been unabated, and from the curriculum system, course content to the practice, its reform tide is more and more high between each other; then from the educational administration department in China, the design subject gradually receives attention; even from the enterprise appeal, employers have expectations and confidence in the curriculum reform, also they hold a positive attitude to the cooperation with universities to

create courses. All these advantages provide a rare opportunity for the industrial design curriculum reform.

D. Threat analysis

Opportunities and threats always coexist. And the threat is from the achievement pressure of foreign design education reform. From the present situation and achievements of foreign design education curriculum reform, the degree of combining curriculum theory and practice is obviously higher than that of our country. While foreign design curriculum not only emphasizes the basic characteristics of the design, but it pays great attention to the background characteristics, industry characteristics, the characteristics of the times, then it constantly promotes reform in depth. Even the trend of higher education internationalization and globalization increases sharply, and it makes the students in China have more chances to go abroad to study design education, or makes them study the “course” provided by foreign and Chinese university or only provided by the foreign university. So this trend causes threat to the quantity and quality of design talents learning the industrial design education curriculum in China, and it puts forward a challenge to China that whether we can keep best design students in our country.

3. The “Adaptation” Direction of Industrial Design Profession under the “Two Integration Context”

The SWOT analysis result shows that there are obvious differences between the present situation and the future goal of Chinese industrial design professional curriculum system. If the industrial design education wants to improve itself competitive advantage in the current social background, it must optimize the industrial design professional curriculum system, and makes the curriculum system organically combine the internal causes with external causes, that is to make the curriculum strengths and weaknesses as well as the external opportunities and threats organically combine each other. Based on the SWOT method, then after the comprehensive and systemic analysis, this paper finds out that the differences between the current situation and the goal of the industrial design professional curriculum system are more comprehensive and practical than before.

A. Seeking the Chinese characteristics of curriculum system in international perspective

Different from the developed countries that developed from the agriculture countries to industrialization countries then to informatization countries, China is on the way integrated by “industrialization and informatization”, and under the special background, being focus on the present situation of industrial design professional curriculum system, we will pay great attention to the solution of international experience, such as the solution emphasizes the value education and moral education, it emphasizes the formation of information literacy as well as the training of the creative thinking, then it would establish national curriculum standards and exploring developmental

curriculum evaluation mechanism, even it will expand the autonomy of the school curriculum and so on.

Localization is the problem which when we draw on the international experience, we must especially pay attention to. Also completely copying without considering Chinese situation isn't the preferred way. What's more important is to establish industrial design curriculum system with Chinese characteristics which is suitable for our country under the international context. Like in the curriculum structure, the curriculum system should properly deal with the relationship of division and synthesis of the courses, balance and continuation, unity and diversity and common and choice. Then in the way of teaching and learning, it should emphasize the combination of reality of community, school, teachers and students. In the end it should carry out the teaching reform, and advocate the variety of learning methods as well as develop the spot resources, both learning from the related foreign experience and considering the lack of educational resources, the size of school and class is too large, the teacher curriculum quality is not high and other conditions. Therefore, our school-based curriculum orientation has rich Chinese characteristics.

B. The industrial design professional curriculum system of “adaptation”

It's obvious that the stakeholders appeal to the industrial design education curriculum reform with an expert of “adaptation direction”. And indeed the survey found that there are some similarities and differences in the understanding to some problems of the teachers, senior students and employers. Then the similarities are presented in the current situation and the problems of the curriculum, the relevance of curriculum and society, design thinking, weak link, learning experience, reform direction and so on. These show that the teachers, senior students and employers have the common opinions on these problems. While the differences are presented in the design background, constraints, lifelong learning, design management skills, leadership, scientific knowledge and so on, then the main reasons are: teachers, senior students and employers are in the different social subsystems, and their angles and starting points to the occupation image of design and industrial designers are not the same; students pay more attention to the knowledge mastering, scientific analysis and practical skills; while the employers think more about the economic interests than the design background, social ethics and so on.

The stakeholder expectations could be interpreted by the social foundation of the course. Now we are in a dynamic, constantly changing society, and the social foundation is very important for the course. For design education, the appeal of the stakeholders represents the influence of social forces to the course. And the demands of society to course are not only the reflection of social status, but the society requires students to prepare for the design practice which has rapid change. The expectations of social forces to course has great influence, and they decisively

influence the appropriate degree of the experiencing curriculum of the stakeholders.

4. Conclusions

If the industrial design curriculum system thinks it is hard to adjust itself to adapt to the current and future industrial design practice, it must carry out the reform. Therefore, in the aspect of the problems and shortcomings of industrial design professional curriculum system, we must reflect the social foundation of the course: What kind of curriculum system is most suitable for the industrial design students to deal with the future challenges of industrial design practice? “We should never forget that the course workers play a decisive role in the process of shaping students and indirectly making students socialization.”

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