

On the Construction and Practice of Virtual Simulation Course System of Ceramic Product Design

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Abstract: Virtual Simulation Education is an Important Breakthrough in Deepening the Reform of Vocational Education Concept, Content, Method, Method and Mode. the Establishment of Virtual Simulation Education System is an Important Support of Virtual Simulation Education. through the Creation of Virtual Simulation Professional Environment and the Whole Process of Product Design and Production, the Establishment of Virtual Simulation Course Experiment Resources is Helpful for Students to Develop Professional Quality and Improve Professional Ability. This Paper Starts with the Construction of Virtual Simulation System Which Meets the Requirements of Professional Team, and Takes the Design of Professional Products with Guangxi Characteristics as an Example. in the Whole Process of the Design and Production of Xingxing Ceramics, Based on the Resources of the Virtual Simulation Experiment Site, This Paper Puts Forward Specific Methods for the Innovative Personnel Training of the Design Profession in Three Aspects of the Learning Process of the Virtual Simulation Course.

1. Introduction

In Today's Domestic Vocational Education, There is a Situation in Which Theory is Divorced from Reality. Due to the Lack of Traditional Experimental Training Conditions, Students Rarely Have the Opportunity to Participate in Training. the Construction of Virtual Learning and Practice Environment Using Virtual Reality Technology.

2. An Overview of the Construction of Virtual Simulation System for Ceramic Product Design

As the Product Design of a University or University, the Goal of Personnel Training is to Cultivate High-End Production, Management and Service Personnel. the Main Work is to Design, Produce and Use Production Equipment. as One of the Advantageous Industries with National Characteristics, Pottery Includes Puxing Craft Pottery and Puxing Daily Pottery. the Main Varieties Include Teapots, Tea Sets, Antique Crafts, and National Traditional Crafts. Because There Are Many Kinds of Jobs, Students Need to Master Many Professional Skills in the Teaching Process[1]. Using Virtual Simulation Technology, Virtual Simulation Teaching Materials with the Characteristics of the Production and Production Process of Puxing Ceramics Are Developed. in the Context of Virtual Simulation, Professional Product Design Innovative Teaching Mode (Innovative Ceramic Art)[2]. the Combination of “Do, Do” Integration and Virtual Simulation Teaching Method Endows Each with Its Own Advantages and Makes It a Perfect Game, Which is Very Important to Improve the Efficiency and Quality of Ceramic Product Design Teaching. At the Same Time, the Development of Virtual Simulation Guidance of Xingtao Ceramic Product Design is Effective to Save the Experimental Conditions, Reduce the Loss of Experimental Equipment, Reduce the Economic Loss Caused by Operation Error, and Make Up for the Lack of Site Conditions to a Certain Extent. Moreover, It Can Effectively Shorten the Practical Skills of Students. Training Time: in 2016, on Everest of Guangxi Autonomous Region, the Regional Level Virtual Simulation Experimental Education Center Was Approved as the Experimental Center, the Initial Badge of China Ceramic Simulation Education Center. the Project Team Will Use Virtual

Simulation Teaching Platform of Ceramic Art Design, and Use Virtual Simulation Technology to Carry out Necessary Reform and Exploration on the Construction of Ceramic Product Design Course.

Table 1 Curriculum System Of Virtual Design

Website	Total number of courses	Physical education courses in domestic colleges and Universities	Proportion of total courses on the website
Peking University open class	49	0	0.00
School Online	181	2	1.10
Five minute course network of National Open University	10220	319	3.12
Curriculum Sharing Alliance of eastern and Western Universities	53	1	0.00
Love Curriculum	1038	7	0.67
National Excellent Course Resource Network	20272	374	1.84
China Education online open resource platform	214	0	0.00
CCTV China University video open course	124	0	0.00

3. Build a Virtual Simulation System to Meet the Requirements of Professional Teams

The first is to study the professional requirements of product design of Yangxing ceramics industry and related design service industry in Northwest Guangxi. Through the investigation and analysis of the working group related to product design of the company, the influence of the working group on product design of the company on graduates is obvious[3]. Requirements for professional applications. Through preliminary investigation, the whole process of product development is changing from commercialization to commercialization[4]. In every stage of product planning, product design, product production, product marketing and promotion, it is necessary for designers of Xingtao ceramic products to do in place. The product design position of the ceramic product planning department is to find, market research, product opportunities, demand analysis, product design tasks, and determine the conditions of the market side. The products including the style, function, cost and price of the products are the responsibilities of the definition side. Product design at this stage usually needs to work with other experts to complete the planning work. Product design stage[5]. Through creative thinking and methods, the concept creative design is carried out for the work of designing ceramic products. Production stage of isin pottery. According to the production process of the vibrating deaf dumb pottery, from the mud training, drawing, repairing, carving, firing to the production process, the final product grinding and polishing is completed[6]. This stage is the most concentrated stage in the post design team of puxingtao product, and it is also an important stage to cultivate students' practical ability and investigate application talents. Yan Xingtao product marketing promotion stage. This profession is mainly composed of marketing and packaging design, product logo design, product advertising design, product web page design, etc. Product designers are often required to complete all related work from product design to product marketing and promotion. This means that other industries and enterprises need to focus on the design capability of puxingtao during the course of ensuring "broadband foundation". This needs to be based on the individual development of students to set up curriculum modules, so that they can learn in different industries and positions[7]. In the process of post group's professional ability and work, as a tour guide, post group's product design is based on the analysis of post group's ability and condition, the education content is transformed into the actual work task, and the virtual simulation, route and system of post group's condition matching are constructed.

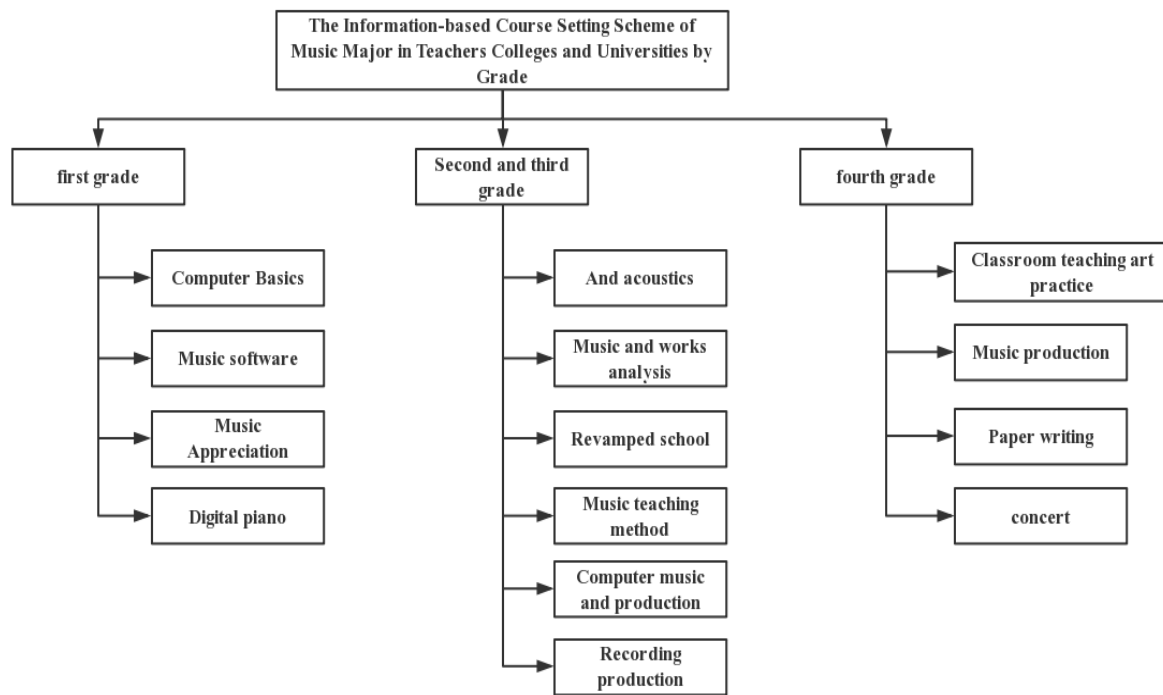


Fig.1 Curriculum System of Virtual Design

4. Construct the Experiment Resources of Virtual Simulation Course Based on the Whole Process of Product Design and Production

Table 2 Curriculum System Setting of Virtual Design

Schedule	Smartclassroom teaching activity organization	Theoretical guidance
Before class	Use mobile phone learning platform for academic analysis and strategy guidance	Cognitive strategies, establishing learning goals, and developing learning plans
	Learning platform uploading study case, micro-teaching instructional video, online placement task requirements	Input - noted input
	Mobile phone questionnaire voting, pre-heating before class	Interactive + Input
In class	Classroom lectures, practice discussions, online and offline mixed teaching	Understand input + absorption internalization language
	Group collaboration and mutual learning	Absorption internalization language + cooperation strategy
	Learn online online, upload recordings, videos	Processing + output
After class	Complete learning platform work, unit testing	Output + teaching effect detection
	Complete the mobile phone questionnaire and reflect after class	Cognitive strategy, assessing learning outcomes
	Organize online extracurricular activities to create a diverse locale	Intentional learning + companion learning

Push the virtual compliance of ceramic product design, construct the application-oriented resource-based construction idea, and construct the simulation experiment of the whole process of ceramic product design and production. The construction of virtual simulation experiment resources, the use of virtual simulation technology, the puxingtao special post group is required to establish information-based teaching resources according to the unity of actual production environment and special technology, the professional environment design of puxingtao based on virtual simulation, the construction of experimental resources in the whole process of product design and production Simulation experiment resources, simulation experiment of manufacturing process of Xinxing ceramics, virtual simulation experiment of drawing of Xinxing ceramics. The virtual simulation experiment of Xinxing ceramic sculpture, the virtual simulation combustion experiment of Xinxing ceramic, the virtual simulation experiment of grinding and grinding of lithium Xingtao, the virtual simulation experiment of mold and so on were carried out. The construction of virtual

simulation experiment resources is to analyze the product design and production of Puxing ceramic products enterprise. According to the current market requirements for the design ability of Puxing ceramic products, virtual simulation technology is used to integrate it into the training course of Puxing ceramic product design, and restore it in the visual and cultural context.

5. The Establishment of Virtual Course Learning Process

Compared with the traditional mode of missionary education, modern vocational education emphasizes the central independent and open learning. In addition to doing well in traditional education, teachers must integrate curriculum resources, use information platform, and take the goal of capacity-building. Students guide students through “encouragement”, “help” and “guidance”, improve students' ability, analyze problems, comprehensively solve knowledge and solve problems through improving guidance ability. Through the whole process of product design and production, the production process led by Xingxing has been transformed into the traditional “Teacher centered, classroom centered model”, which is the standard established by the special center. The modularization and seminar, simulation experiment and Simulation of the project course use the “model” seminar and the product design of the production engineering center xinxingtao virtual simulation learning centered on students. The main practice emphasizes the combination of theory and practice, emphasizes the cultivation of project driven as the leading practical ability, and advocates “learning” and “experience learning”[8]. “Active learning” and other teaching methods, effective learning process of students, in order to achieve students' independent learning ability, cultivate students' ability, improve, practical problem-solving ability and professional group students with professional ability become possible.

6. Conclusion

Virtual simulation education is an important breakthrough in deepening the reform of educational concept, content, method, means and mode[9]. The establishment of virtual simulation education system is an important support of virtual simulation education. With the rapid development of virtual simulation education in universities and colleges, the construction of virtual simulation education curriculum resources plays an important role in education and teaching activities. The center team relies on the local ceramic art design virtual simulation experiment teaching center. In the process of virtual simulation guidance of Guangxi's specialty design (the art of tropical atmosphere and ocean)[10], the experimental resources are constructed, the production is constructed, and the host machine is used as the learning process. Focus on training the comprehensive quality of professional talents and provide effective methods for training innovative design talents.

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