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Construction and Software Realization of Modern Digital Training Platform Based on Digital Media Technology

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Abstract:Aiming at a series of drawbacks in the construction and teaching process of digital engineering training centers in colleges and universities in my country, combined with the system construction experience and achievements of the digital engineering training platform of real scenarios, suggestions for the construction of digital engineering training centers are put forward. Digital media technology is a new type of digital and multimedia communication media under the Internet platform, and its current application fields are quite extensive. This paper analyzes the demand for the professional ability and professional quality of high-tech applied talents for the positions that digital media technology majors face, and builds a modern digital training platform based on digital media.

Keywords: Modern Digital, Training Platform, Digital Media, Software Realization

1. INTRODUCTION

The Ministry of Education mentioned in the "Several Opinions on Comprehensively Improving the Teaching Quality of Higher Vocational Education" [1]: "Pay attention to the use of high-quality teaching resources and network information resources, take modern information technology as an important means to improve the quality of teaching, and continuously promote the sharing of teaching resources. Building and sharing [2], and improving the use efficiency of high-quality teaching resources." In the context of modern higher vocational education, vocational colleges all over the country have fully realized the importance of information technology [3] in the construction of professional digital teaching resources, and have intensified efforts to develop resources. Fully developed. With the improvement of infrastructure [4], the problem of resource construction continues to appear: the problem of more resources and less quality products often occurs; high construction rate and low utilization rate are accompanied [5].

The repeated construction of similar or identical courses in major institutions is a serious problem [6]. The phenomenon of "form over content" appears in the development of digital resources, which cannot truly reflect the connotation of the development of professional digital teaching resources [7]. The 21st century is an era of informatization and networking. The widespread application of information technology has triggered revolutionary changes in all areas of human life [8]. Informatization refers to the process of developing, utilizing and accumulating information into resources, and its basis is to generate a large amount of information through digital means [9]. All fields of human civilization are more or less converted into digital information and stored, which can not only preserve and integrate their complete specifications, and display them in different forms [10], but also mine and develop massive information data to find more information. valuable resources [11]. Informatization education is the application of information technology in the field of education. It introduces network technology, computer technology, communication technology [12], etc. into teaching, providing solid environmental support and diversified services for the improvement of education and teaching quality; limit [13].

Through network and corporate interviews, we have investigated more than 100 companies in network technology/computer information technology [14], advertising media, decoration, real estate, product development and design, animation, film and television multimedia production, and learned that the network digital media industry is mainly engaged in three aspects [15]: The first is the development of CG game products, the second is the development of film and television animation products [16], and the third is the development of web-based virtual display of products. The most in-demand positions in this industry are: 3D modeler, virtual reality designer, WEB designer [17], etc. The skill requirements of these positions are mainly related to 3D production, virtual product realization, and WEB product development [18]. In the teaching process of colleges and universities, how to change the indoctrination teaching mode so that students can learn the teaching content of this course independently has become the main direction of teaching reform [19]. By improving the teaching concept of teachers, the reform of education is gradually implemented. In the promotion of teaching reform, middle schools can organize all teachers to study the teaching plan and teaching requirements of the new curriculum reform in a unified way. It is a shortcoming in current education [20].

In the future education reform, how should teachers implement their educational responsibilities [21]. To sum up, higher vocational education in Hebei Province is already comparable to general higher education in scale, but there are still backward educational concepts, relatively shortage of high-quality educational resources [22], unbalanced regional education development, and the ability of education to serve economic and social development needs to be further improved. strengthening, etc. [23] Under the guidance of national policies, the use of advanced information technology means to realize the integration and sharing of teaching resources, and promote the characteristic development of higher vocational education [24], so as to better promote the scientific development of education in our province, improve the quality of the whole people, and better serve Hebei Modernization construction services. In view of the problems existing in the informatization process of higher vocational education and the close connection between higher vocational education and regional economic development.

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2. THE PROPOSED METHODOLOGY

2.1 The Digital Media Technology

The construction of the computer multimedia technology teaching resource library can concentrate the high-quality resources of vocational college education and management of multimedia-related industries and enterprises, form a good co-construction and sharing mechanism, promote the development of education informatization, improve the quality of personnel training and the social popularization of professional knowledge , which is embodied in: For higher vocational colleges, the construction of digital teaching resources is a relatively unfamiliar field, but it is an indispensable part of connotation construction. Each college waits and sees each other in the process of resource construction, trying to find applicable experience. Or unified standard templates for their own use. However, the current situation of the chaotic process of resource production, collection and integration has resulted in that although higher vocational colleges have no construction experience, in order not to lag behind other similar colleges and universities, they do not have reasonable planning and design. Under the blind construction, ignoring the quality of resources, standardized management and healthy development of resources.

On this eve, during the investigation process, we found that because the higher vocational colleges have invested a certain amount of manpower and material resources in the process of resource construction, their willingness to share resources with other higher vocational colleges is low, and there is little exchange and cooperation between colleges and universities. . Recently, there has been a wave of chalk writing on the Tsinghua campus. Because of the chalk writing competition held every year on the Tsinghua campus, teachers use chalk on the blackboard to write Mao Zedong's poetry collection, the work report of the 19th National Congress of the Communist Party of China, and the school motto of the Tsinghua campus. etc. Many students exclaimed that only after seeing the teacher's chalk writing did they know who the originals of the block script and running script copybooks purchased online were. We can imagine that the digital education level of the Tsinghua campus is already the first-class level of the current digital campus in my country, but why hold a chalk writing conference?

Because through a simple piece of chalk, the teacher can pass on his knowledge to the students, and the students will be influenced by the teacher between the lines. This cannot be replaced by digital information technology teaching. In the process of application of digital information technology.

2.2 The Modern Digital Training Platform

The construction of professional standards is the foundation of professional development. In the process of formulating and practicing professional standards, it is necessary to carry out a sufficient investigation and discussion process to ensure the full guidance and participation of advanced enterprises in the industry, so as to achieve professional compliance with industry standards and accurate positioning. in principle. The construction and application of digital teaching resources plays an important role in promoting the modernization of education and the connotation development of higher vocational colleges. In fact, the attitude of many colleges and universities towards the construction of digital teaching resources remains in response to government-level development policies. Resource construction is a mere formality, and the promotion, application and update of resources are ignored.

Most of the resources displayed on the school's online teaching platform come from the Yunnan Provincial Educational School Excellent Course Construction Plan in 2008. Since the higher-level ministries have no rigid requirements for digital teaching resources, the subjective awareness of the school's construction resources is low, and the work is also in the information. It is mainly placed on hardware troubleshooting and network support of various ports. Students did not know the school's online teaching platform, and teachers did not guide their digital learning. In the process of information technology application in colleges and universities, many multimedia teaching courseware has played an important interactive role, and the application frequency is the highest in the process of college information technology teaching. Comparing the multimedia teaching mode with the traditional teaching method, the multimedia teaching courseware used in modern colleges and universities is more attractive, because there are not only many intuitive video materials in the multimedia courseware, but also using Internet information technology, it can also conduct cross-cultural and cross-cultural teaching. Regional educational exchanges have brought more directions to teachers' teaching reform, and the way of learning social work has also changed a lot.

Carry out a wide range of talent training research in similar higher vocational colleges across the country. If conditions permit, the scope of the research can be extended to foreign countries. At the same time as reference and reference, it is necessary to fully consider the characteristics and characteristics of regional development.

2.3 The Construction of Modern Training Platform Based on Digital Media

On the basis of the professional talent training plan, a professional curriculum system is formulated. The curriculum system consists of professional core courses, professional support courses, and extended courses. Among them, the professional core courses are courses that reflect the core skills of the profession, and the professional support courses are the support of the core courses. and basic support courses. Step 4: Design a practical teaching system that meets the needs of teaching and employment In view of the special status of practical teaching in higher vocational colleges, we will conduct in-depth research on the new practical teaching system for majors.

The audio-visual teaching theory holds that the active use of educational media and the full play of the functions of the audio-visual senses can realize the optimal educational activities. The construction of digital teaching resources in higher vocational colleges is unavoidable, and it should be combined with the characteristics of X-professional to develop a variety of sensory stimulation resources such as video, animation, and audio. Concrete abstract content to enhance students' interest in learning. At the same time, the construction of digital teaching resources in higher vocational colleges should consider the diversified perspectives of users, and provide users with a variety of retrieval methods. For example, retrieval users can retrieve resources from different perspectives such as majors, industries, and jobs.

In the process of teaching design, teachers can build an online subject learning platform for students based on the teaching content of the subject and combine digital information technology. In this way, in the process of teaching, some students have learned the key knowledge of the course through the online system. In this way, the teacher's teaching

progress can be shortened very well, that is to say, in a very short time, the teaching content in the syllabus is completed, and the students' learning quality is also very good. The rest of the time can be given to students, allowing students to study and discuss freely.

3. CONCLUSIONS

Form a systematic engineering training center with digital construction as the core, covering machinery, electrical and electronic, computer and management as a whole, so as to transform the engineering training center from "investment type" to "benefit type", and make teaching change from "instruction type" to The transformation of "research-oriented" enables students to change from "hands-on" to "brain-driven", realizing the organic combination of teaching, scientific research and production, mutual promotion and common development, which is the only way to run the engineering training center well.

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