

Research on the Integration of Teaching Resources Construction Under the Background of Educational Informationization -- Taking the Course of Architectural Engineering Metering and Valuation as an Example

Li Wang

Taishan University, Shandong, Tai'an 271000

Abstract: The integration of teaching resources under the network environment breaks through the limitation of traditional teaching resources in a certain area and realizes more sharing and integration of teaching resources through the network platform. The integration and development of the course resources of architectural engineering metering and valuation in colleges and universities can not only enrich the content of classroom teaching, but also improve the quality of classroom teaching by means of a large number of excellent teaching resources, students can also provide a wealth of extra-curricular learning resources, students can use extra-curricular time for self-study, to develop the spirit of self-exploration and self-learning ability of students. At present, the integration and development of course resources of architectural engineering metering and valuation is the key work to ensure the healthy development of education and the sustainable development of higher education.

Keywords: Information; Teaching resources; Integration; Construction; Engineering

1. The integration of teaching resources in the course of architectural engineering metering and valuation in China and the existing problems

1.1 The scope of integration of teaching resources in the course of architectural engineering metering and valuation is small, and the sharing efficiency is relatively low

At present, although the integration of English resources in universities has achieved some results, and also urgently needs a large number of teaching resources to support, but in the base

There is still a lack of infrastructure, so that the integrated and shared content has not been deployed on a large scale, so this part of the content application rate is not high. In addition, the integration and sharing of college teaching resources are basically free, so the school for their own resources or more conservative, lack of enthusiasm. In the process of integration and sharing of teaching resources, there is also a lack of special policies to improve the management of many problems, that is to say, the lack of a unified platform for integration of resources.

1.2 Under the network environment teaching resources conformity platform's construction investment is insufficient

The development of network technology can be said to provide a good platform for the integration of teaching resources in the course of architectural engineering metering and valuation. The campus network resource platform mainly includes three aspects of technology, display layer technology, database technology and server technology. The technology of display layer is mainly web page making, which provides the content of resources in visual form through HTML or other web pages, and is the human-computer interface of teaching resources platform Server technology mainly uses large-scale data to store teaching resources, and to provide users with an efficient retrieval function. There are many kinds of teaching resources, which need to be integrated with many universities, so it needs a very strong database to support it; the server technology is mainly to use Javascript or JSP for server business implementation, connecting to the database, processing the request information, returning the web page information and so on all need the support of the server. In addition to technology, the most important is the construction of hardware, schools need to invest a certain amount of funds, but the current network integration of teaching resources lack of related machines system regulation, so colleges and universities in this area are generally subject to inadequate investment restrictions.

2. The significance of the integration of higher education resources

2.1 The needs of the information age

With the coming of Information Age, information technology is developing rapidly, and the education work in the new period

has more room for development. With the advancement of the educational reform, the teaching concept and teaching mode are being updated, and important educational breakthrough has been achieved, and important changes have taken place in the contents and methods of education. In the information age, we still need new teaching theories and teaching methods to guide the new teaching system in the process of educational reform. Therefore under the network environment, the architectural engineering metering and the valuation curriculum teaching resources conformity work is conforms to the time development need.

2.2 Demand for educational technology development

The development of education technology under the network environment promotes the application of information technology in education. In the new curriculum standard, the architectural engineering metering and valuation curriculum teaching resources must be rich, can satisfy the more flexible teaching demand. In terms of teaching methods, the importance of students is constantly highlighted, communication and communication become the main means of teaching, the relationship between teachers and students shows more diversity, and the integration of educational resources gives students more opportunities to study.

2.3 Help to improve the quality of teaching and classroom teaching efficiency

The teacher's lesson preparation work is very heavy, not only must guarantee the teaching quality, but also must enhance the student's participation enthusiasm, the long time lesson preparation work lets the teacher undertake, bears the bigger pressure, moreover one person's wisdom is always limited, classroom, teaching progress is also subject to certain restrictions. If we realize the integration and sharing of online educational resources and resources, teachers will have more content for reference in preparing lessons. They can absorb advanced teaching experience and provide a large number of teaching resources at the same time, improving the effect and efficiency of classroom teaching.

2.4 It is beneficial to cultivate students'innovative ability

The greatest advantage of the integration of educational resources in the course of architectural engineering metering and valuation is to enrich the contents of science departments and systems, so that students have a broader learning space. Under the network environment, the excellent educational resources are integrated into one, which fully satisfies the students'study and needs. Under the guidance of teachers, students can actively collect relevant information, and carry out relevant learning, make use of integrated resources to give full play to the advantages of the main body, and then improve according to their own characteristics, in order to achieve a faster and better talent training. Such a teaching method, greatly enhance the enthusiasm of students to participate, at the same time, with rich teaching resources to cultivate the innovative ability and problem-solving ability of college students.

3. The principle of network integration of teaching resources in the course of architectural engineering metering and valuation

3.1 Engineering principles

The network integration of English teaching resources should be developed and built from the engineering point of view, which needs the support of a complete professional education team. The education team should include teachers with rich teaching experience, instructional designers, and relevant programmers. The construction team should include all aspects, each has its own duties, and form a mutually supporting development team together, so as to ensure the concrete effect of the integration work and complete the integration construction work as soon as possible.

3.2 Principles of Educability and applicability

The integration of educational resources is mainly for the teaching work, so no matter from the content aspect or from the function aspect, we should design from the teaching use demand. The first is to meet the learning needs of students, the content to provide students with a variety of learning resources and learning information, so that students can, in the extra-curricular time according to their own learning conditions for self-study; But the function aspect also must satisfy the student's demand, for example on-line test as well as the answer, the question platform, designs the concrete function for the convenience student to use. Secondly, to meet the needs of teachers, teachers can master a lot of teaching and research information, as well as teaching experience, at the same time their own experience should be able to share and exchange.

3.3 The principle of cooperation and sharing

At present, the biggest problem of the teaching integration of architectural engineering metering and valuation course is the small scale, which has not realized the large-scale cooperation and sharing, which has greatly limited the resources and the effect of integration. First of all, colleges and universities should unify their concepts, cooperate with each other, implement a resource standard together, and integrate and share teaching, learning resources and teaching experience. The cooperative approach can increase the total amount, of shared resources, and integrate more discrete teaching information together, and unify the sharing rules, so that these resources can be used more efficiently and shared resources can not be wasted.

4. The application of cloud computing in the integration of network teaching resources in colleges and universities

4.1 Overview of cloud technology

The cloud technology mainly uses the distributed processing and the grid computation, relies on the computation, the computer technology and the network technology, will the massive information carry on the distributed storage through the network, makes it possible for a personal computer to acquire large amounts of information through simple operations. In the integration and construction of online educational resources in colleges and universities, cloud computing is just able to meet the storage and transmission requirements of massive educational information, innovative approaches to the integration of educational resources in the course of architectural engineering metering and valuation.

4.2 The main advantages of cloud computing

Large-scale: can be distributed to store a huge amount of education information, in the network can be almost unlimited information.

Safe and reliable: network distributed storage stores huge amount of information in logical structure to avoid the danger of the information concentrated in the same equipment.

Virtualization: the integration of educational resources through cloud computing is just a virtual collection, together, in fact, universities only need to provide an address, can be unrestricted access to resources, greatly enhanced the construction of architectural engineering metering and valuation courses, teaching resources integration and construction of the scope of the design.

Economics: schools may not be able to integrate and share educational information, because of the cost of the hardware, but cloud computing provides high-performance data servers, it only needs to pay a certain amount of operating and maintenance costs to achieve integration and sharing.

4.3 Teaching Resource Integration of architectural engineering metering and valuation course based on cloud technology

According to the characteristics of cloud platform, we can build a resource platform based on cloud server first. In the cloud system, the IaaS layer provides the development environment of resource sharing, and the cloud server can reasonably allocate and store all kinds of teaching resources. The PaaS layer provides a functional interface for schools to develop applications based on IaaS, such as management, interaction, and online testing. The SaaS layer is designed for school teachers and students to access educational resources in the cloud via a traffic controller or mobile client.

Colleges and universities in the integration and sharing of teaching resources, the use of cloud computing, computing ideas, can build their own private cloud services, the external network, public cloud information, integrated into their own pool of resources. The control of private resources is more free, the school can carry on the overall management and control. Public and cloud resources are jointly constructed by universities and have unified management norms, while universities themselves can form private clouds that meet their own needs, manage them in an all-round way and provide personalized functions at the same time, let the education resources carry on the conformity according to own development, the direction.

Under the network environment, the integration and sharing of teaching resources in the course of architectural engineering metering and valuation is inevitable for the development of education. Only in the relationship of cooperation and sharing, can colleges and universities learn from each other and develop their innovative advantages. For students and teachers, it is also necessary to integrate teaching resources in the course of architectural engineering metering and valuation. Teachers need to improve teaching level through sharing and communication, and students need to pass, a large number of learning resources to improve. Therefore, under the network environment, the integration of resources must keep up with the pace of the times, through the construction of advanced network technology, the information platform to meet the development of education.

About the author:

Li Wang, Taishan College, master, lecturer, research direction: Village Construction and Regional Development, project cost and whole process management.

References:

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- [1] Fan Zhaofeng, Zhang Kejun, Dai Yueming, et al. . Research on the integration of high-quality teaching resources in sino-russian cooperative schools under the background of "Internet +"[J]. Teaching and education (Higher Education Forum) , 2021(10) : 78-80. DOI: 10.3969 J. ISSN. 1008-2549.2021.10.025.
 - [2] Lee ching-soo. The value and feasibility of the integrated development of college P. E. Teaching Resources [J] . Journal of Sports Science and Technology, 2020,28(8) : 28-29. DOI: 10.19379 J. No, no, no. ISSN. 1005-0256.2020.08.012.
 - [3] Nie Chao. Research on the construction of three-dimensional animation teaching resource database under the background of integration of industry and education. Journal of Taiyuan City Vocational and Technical College, 2021(3) : 68-70. DOI: 10.3969 J. ISSN. 1673-0046.2021.03.022.
 - [4] Zhang Fangling. Research on the integration of production and education in vocational education and the construction of shared digital teaching resource database. Technology Horizon, 2021(31) : 68-69. DOI: 10.19694 J. No, no, no. ISSN 2095-2457.2021.31.31.