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Website Design and Maintenance of University PE Excellent Courses Based on Web Technique

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Abstract

The university PE excellent courses set the model and are playing the radiative role in terms of sharing the excellent teaching resources, excellent teaching results, fostering the course construction and teaching reform among universities and enhancing the teaching quality. This article, through integration of multi-media and web technique, proper design of website modules and proper selection of web-creation software, exploits and employs the websites of university PE excellent courses, and suggestions are offered on their maintenance and renewal.

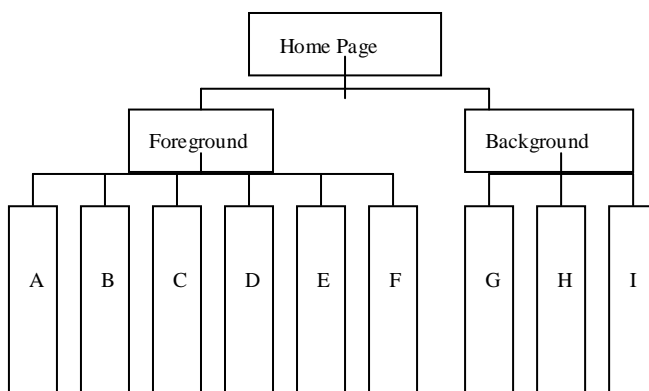**Index Terms:** Web; University PE; Excellent Courses; ASP.NET; Module Design

1. Introduction

University PE excellent courses are model courses and fully employ the excellent teaching resources, including faculty, teaching contents, teaching approaches, teaching materials and teaching management. The construction of PE excellent courses covers the construction plan of the courses, the teaching reform and research, integration of teaching resources, teaching practice and assessment of teaching effect, and its outcome lies in the share of course resources after published on the website and application of them in teaching practice. The websites of university PE excellent courses offer an unprecedented interactive and open fresh environment and technique to fulfill the share of teaching resources and achieve the objective of individualized teaching.

2.The running environment and systematic structure of teaching website

To increase the re-utilization of website codes, the websites of university PE excellent courses are designed into modules, including two modules, foreground and background respectively. Every module has its independent database and two modules are mutually-independent as well as mutually-connected. When

necessary, they can be reused, thus increasing the code efficiency, reducing the website exploitation cost and improving the running efficiency. The websites utilize the mature and powerful ASP.net programming language and Access database to fulfill its function. The foreground allows all the users to browse the website resources and the background enables the website administrators to maintain and update the websites. The website system applies the Browser/Server construct and runs in the edition over W indows95/98/2000/XP+IE5.5, (Zhang Junjun,2005). The server adopts the frame of Windows 2003 Server+1156.0+ASP.net and the background database adopts the SQI Server 2000 and ACCESS. The distant teaching system is developed via ASP. The website functional module is shown in picture one.

A: Course Guide   B: Course Outline   C: Chief Teacher   D: Collection of Teaching Plans   E. After-class Activities   F: Website Resources   G: System Management H: Information Management   I: Online Answering

.3. Module desitgn and realization of teaching website

The website of university PE excellent courses is developed with ASP.net. ASP.net runs at the Web server end and then transfers the outcome to the browser of the user end in the form of HTML. ASP.net belongs to the explanatory language and is explained and executed by the Web server.

A．Development and Design of Website Courses

Website Courses are the important component of the website system of university PE excellent courses. In terms of development ideology, the excellent courses should pay more attention to reflect the first-class teaching content, teaching approaches and meanwhile to highlight the visualization, beauty and vectorization or exactly speaking, the visualization of teaching thinking and teaching activities (or processes) and the beauty of pictures, cartoons and webpage design. Compared with the popular course wares, like POWERPOINT, AUTHOWARE and 3DMAX, the website courses are characterized with complete vectorization, true network and besides they are distant teaching system based on constructs, which is more convenient to the student-focused autonomous study (Tong Airen, 2007).

It is important to employ the visualization technique and select the development tools. The university PE website courseware requires a good many graphs; therefore Dreamwaver and FLASH for vector graphs and cartoon development are mainly utilized to design the web pages. The utilization of great many vectorized graphs and vectorized cartoons in university PE course wares reduces the space covered by the network graphs and meanwhile these graphs can be displayed with high-quality and zoomed at random, which provides sufficient convenience to the teaching and students' learning.

The courseware is mainly characterized with true network, complete vectorization and exquisite package. Its

development is wholly based on the educational theories of modern constructivism, advocating student-centered and diverse effective means to achieve the best teaching results as much as possible.

B. Interactive Platform Design of University PE Website Courses

Website courses should be an excellent man-machine interactive system. Among the limited interactive time, students shall not only adapt themselves to the learning environment and knows the internet well but also stimulate their senses and brain, via multi-media information, to be quicker to be in active learning status and then achieve expected learning results.

I) Principle of Interactive Design

Interaction, as an important component of website courses design, shall comply with the following principles:

a) Principle of Unity. The same interface objects shall be uniform in format and function; the same labels or the same button with the same design shall produce the uniform conduct.

b) Principle of Clarity. Objects like the dialogues in the dialog box, control on the screen images and buttons shall pursue simplicity and clarity. These objects shall be categorized or formed into blocks and be presented in the simplest manner.

c) Principle of Swiftness. Enable the users to understand his direction has already been accepted and executed in the most direct and swiftest manner and avoid the dissatisfaction for long-time waiting.

d) Principle of Easy Operation. The website course easy to use and easy to study can be said to be good one, otherwise it will be lifeless as long as learners will feel frightened for it.

e) Principle of Visualization. Learners can see every object they handle on the screen, which will strengthen the learners' utilization motivation and improve their involvement in their study.

II) Interpersonal Interaction Deign

Interaction of the website course can be classified into interpersonal interaction and man-machine interaction. The interpersonal interaction refers to those between learners and teachers or professors or between learners and this interaction can be real or non-real. The so-called man-machine interaction means those between learners and learning materials, learners and teaching soft wares. The ways of man-machine interaction is flexible and this kind of interaction tends to be created, whose quality will be closely related to the designers' creativity and skills.

In this course, a good many ways and channels are offered to support man-machine interaction and it is worthwhile to note that these man-machine interactive ways and channels are effective tools for learners' coordinated study. The utilized tools are listed below:

a) Messages. In the website course, the learners, teachers and processors can communicate with this channel. It is convenient to hand in homework and grades by students, collect grades by teachers and reply the emails. A platform offered for students to leave messages can classify students into different classes and rows and it will be more convenient to send group messages.

b) BBS. It equals a blackboard and anyone with questions can post their questions on the bulletin. Other people will see it once clicking them and they can give some comments. A lot of questions can be discussed through leaving messages; the website resources thus can be shared; teachers can put the courseware or files into BBS for download.

c) Chat room. When the distant coordination is required, members can make a time to discuss questions in the chat room. In this website course chat room, "teacher-logging" and "student-logging" are set. Once logging and identity-certified, students can enter the chat room freely and their logging account number is their code name in the chat room.

III) Man-machine Interaction Design

In this course, the dialog box, tree items, functional keys, icons, hot word, command language interface and check language interface. Its whole design is simple and easy for study and use. man-machine interactive design has no fixed pattern and its design is somewhat arbitrary. In addition, this course designs a

macro-interaction with restrictions, that is, only the learners register themselves as formal learners and get certified by the member management system, can they be able to study this course.

C. Development of Information Management Module

Information management module includes information management, information distribution and categorized management sub-module. Information management module can correct the information without disordering the information; information distribution module can distribute letters, graphs, FLASH and videos, and can edit them. The special effect of rolling letters is added; categorized management module can add and delete the sub-pages and select the display pattern, like the single page or the picture form.

D. On-line Test Module Development

On-line test module is designed for PE theoretical tests and they require the support of SQL Server database. The system can mark automatically the added Choices, Judgment, and Blank-filling given by teachers. Students answer the test on the on-line test page. In essence, students retrieve data from database and interact with client's end, and then the clients' end operates on the data of test base and keep it in the buffer are. After completing the answer comparison, the clients' end will write the data result in the buffer area to the database to generate the final score. This module can also generate a test freely from the test base, which is to generate a new test from choosing items from the test base. When inputting the items and answers, WORD can be activated at any time and via clipboard, the items and answers can be pasted. Pictures, letters and formulas are easy to input. The numbers of items in the test can be calculated according to the chapters and types of items. The new test can be generated automatically according to chapters and item types or item types and item difficulty. In addition, random test generation is supported for students' exercise.

4. Package design of excellent course website

Package design of excellent course website can be carried out from the following aspects:

A.   Website Structure Design.

Website structure design, based on the careful conception, mainly defines the link structures of websites and classifies the website's different functions and modules, which enables the users to have a clear understanding of the website's functions and structure, thus enhancing the usability of the website.

B.   Website Color Design.

Whether the color matches the website will produce different visual effects and will affect the mood of visitors. Website color design mainly employs the applied color psychology and based on the users' psychological characteristics, designs the website's standard color to match it. Standard color is the color that can reflect the whole image of website and extend the connotation of the website. Standard color is used as the symbol of website, heads, main menu and main color block, presenting a uniform feeling.

C.   Website Standard Letter Type Design.

On the website page, CSS is employed to confirm the uniform style of fonts, than is standard font (Gao Bo, Wang Xin, 2000). Like the standard color, standard fonts are special, mainly used as symbols, heads, and the main menu. The default font, normally speaking, is SongTi. To reflect the special style of the website, some special fonts are selected according to requirements. For instance, to reflect the professional feature, crude Fangsong is employed; to reflect the exquisite design, advertising letter; to reflect intimation and arbitrariness, handwritten letter. CSS enables to control the various attributes of fonts and also it can define the letters on the same page categorically.

Through uniform design, the excellent image of the excellent website is highlighted and meanwhile the value and charm of the website are enhanced. The home page of the university PE excellent courses is shown in picture 2.

5. Website renewal and maintenance

A.   Website Renewal

Two aspects are involved in later website renewal and utilization, one is the renewal of website pages. The renewal of the website is very important to the browsers. The pages in the website can be classified into two types, one is navigation page and main column pages. The renewal of the columns is mainly focused on the renewal of the art design without changing the main frame. The other is pages of letters and information that is pages with letters as the carriers of information. Most of pages belong to this kind. Because module design is employed, when renewing information, the added contents can be pasted to the module.

B.   Website Maintenance

Students as well as teachers shall take the website as their b=virtual learning community and life community, and anther space they share. Particularly, teachers shall always browser their websites. After the website construction, any teacher should discuss together and exchange with students punctually. Listen to the tips offered by students and renew the contents on the web page, thus enabling the continuous perfection of the website resources to fully reflect the superiority of the website teaching (Ma Hongbing, Zhang Qiuling, 1998).

6. Conclusion

The university PE excellent courses set the model and are playing the radiative role in terms of sharing the excellent teaching resources, excellent teaching results, fostering the course construction and teaching reform among universities and enhancing the teaching quality. To build a simple and exquisite excellent course website requires not only the mastery of the contents reflected by the website, but also mastery of modern information technology, network technology and website construction. Proper design of the website frame, proper selection of website creation soft wares, development and employment of the network teaching system are among the important factors of website of excellent courses. Definitely, the most important is to edit procedures correctly, repeatedly debug and run, and frequently maintain and renew it.

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