



# The Construction of Online Teaching Platform of Ideological and Political Education in Physical Education Curriculum Based on Web Technology

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**Abstract.** In order to supplement the classroom teaching of ideological and political education in college physical education, and integrate ideological and political education into daily physical education, the author of this paper developed the online teaching platform of ideological and political course in physical education based on Web technology. The platform uses Java language to design programs, uses SpringMVC framework to build processes, uses MySQL database to realize data storage and management, and assigns two different roles of students and teachers, which promotes the common growth and progress of teachers and students. This platform can give full play to the influence of ideological and political education in physical education courses, and make contributions to cultivating future builders of the motherland with strong physique and sound personality.

**Keywords:** Physical education teaching · Political courses · Web technology · Online teaching platform

## 1 Introduction

Ideological and political course is an important task to shape students' mental outlook and personality. For a long time, ideological and political education has existed as an independent course, resulting in the disconnection between ideological and political education and professional discipline education. In recent years, the state has put forward "ideological and political education in curriculum", which requires ideological and political education to be integrated into subject teaching. In this process, physical education is often ignored. Physical education curriculum is an important position of ideological and political education, so colleges and universities should strengthen the construction of ideological and political education in physical education class. However, the ideological and political teaching of physical education courses in colleges and universities mostly adopts the traditional classroom teaching form, teachers are in a dominant position, and students' autonomous learning is poor. The State Education Bureau issued a notice requiring colleges and universities to incorporate online open courses into their daily teaching management. [1].

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To sum up, the author thinks that in order to solve the above problems, we should give full play to the advantages of online teaching and develop an online teaching platform for ideological and political course of physical education based on Web technology. The system uses Java language for programming, SpringMVC framework for process building, data storage and management, and MySQL database, which completes a set of online teaching platform of physical education class Cheng Sizheng with simple operation, powerful functions and abundant resources.

## 2 Key Technologies

### 2.1 Java

Java is an object-oriented programming language. With its obvious application advantages of simplicity, security, cross-platform, cross-system, parallel execution, etc., it can greatly help developers, continuously expand the application scope and achieve its broad development prospects. As for Java platform, it is all kinds of software or application programs written by Java language, or the integrated development environment of Java language. [2].

### 2.2 SpringMVC Framework

As a design framework for creating Web applications, MVC decouples the business logic existing in the interface by separating the Model, the View and the Controller, and effectively separates the business logic from the data display. Usually, the entity layer is responsible for encapsulating application data and then presenting it in the view layer. The controller takes over and analyzes user requests, and calls background services as needed. [3].

### 2.3 Development Process

According to the above application requirements, complete the configuration and deployment of physical education class Cheng Sizheng online teaching platform development environment. Firstly, the operating system of the system is Windows 10.0, Tomcat 8.0 is selected on the Web server, Eclipse is selected as the bottom development tool, the version of Java Language Development Kit (JDK) is 1.8.0\_91, and MySQL5.8 is selected as the database server.

The SpringMVC framework needs to be downloaded from Spring official website, and the version is SpringMVC5.3.20. Configure SpringMVC in eclipse: build a new project in Eclipse, copy the jar package downloaded by official website to the WEB-INF/lib directory, and configure web.xml, There are four main aspects: writing the configuration file [servlet-name]-servlet.xml, configuring the front-end controller DispatcherServlet, initializing parameters of contextConfigLocation, and configuring listener Listener. After that, you can start running. After the design and implementation of all functional modules of the system are completed, the simulation test will be conducted. After the test, all the system files are packaged and published, and deployed in Tomcat. After setting the IP address, the client can use it.

With the introduction of the above key technologies and theories, the overall environment of the system development, the configuration of related software and toolkits are determined, and the feasibility of constructing physical education class Cheng Sizheng online teaching platform under Web technology is also clarified.

### 3 Function Realization

#### 3.1 Student Side

The students click to enter the online teaching platform of physical education class Cheng Sizheng, click to enter the student platform to register and log in. After logging in, they will see the following four modules:

In the “interactive classroom” module, there are not only recorded and broadcast courses of teachers in our school, but also courses of other famous schools, such as “Mind and Body Wisdom: Chinese Wushu Skills” of Beijing Sport University. Because the quantity below each course is unknown, it needs to be dynamically loaded. The technologies used here are Javascript scripting language and JQuery framework, and the code is shown in Fig. 1. [4].

In the module of “Ability Test” and “After-class Homework”, students can complete the homework related to physical education class Cheng Sizheng assigned by teachers. In the “stage self-test”, students can click on the entrance of the exam at the top of the page, and answer questions. After answering questions, they can choose to hand in papers or the system will automatically hand them in at the specified time.

In the “resource think tank” module, students can choose to download different sports ideological and political education resources according to their individual needs, including sports ideological and political courses such as Women’s Volleyball Team Spirit of Beijing Sport University, micro-class videos such as Talking about Ping-pong Diplomacy, movies such as Leap, documentaries such as Winter Olympics Documentary.

In the module of “Learning Square”, students can have interactive communication in the “Square”, which is similar to online forum, and the content of communication is open to all users.

```
<tr class = "row" rules=cols>
  <td style="border:1px solid #A5E5A9;"></td>
  <td class="more" colspan="3"><a href="javascript:void(0)"
    onclick="addp()"><p>Load more courses... </p> </a>
  </td>
</tr>
</tr>
<script type="text/javascript">
  Var  currPage= 1
  function addp() {
$.post("ChatAction_getCourest"{"currpage":currpage),functi
on(result){
  If(result.result=="no")
    alert("There is no more data! ");
```

**Fig. 1.** Course loading code (Original)

```

package com.mooc.model;
    //Introduction of package
/**
 * @author zhangzihui E-mail: **
 * @version V1.02015-1-15 上午 11:26:05
 * The questions are mainly used to form a test paper
 */
/**
 *questionType Topic type
 *1:Unidirectional multiple choice
 *2:multiple-choice question
 *3:True or False
 *4:subjective questions
 */
@Entity
public class Question{
    private Long id;
    @Column( length=65538)
    private String name; //Question name
    private int type; //Type of question (1 single choice, 2 multiple choice, 3 judgment, 4 subjective)
    private float point; //Score of the problem
    private String rightAnswer;//Multiple choice questions are separated by commas.

```

**Fig. 2.** Question Bank Management Code (Original)

### 3.2 Teacher Side

The teacher clicks into physical education class Cheng Sizheng online teaching platform, clicks into the teacher platform to register and log in, and after logging in, you will see the following four modules:

In the “Course Management” module, teachers can manage their courses. In the “live course”, you can make an appointment for the course, choose the course time, participate in the class students, and make announcements.

In the module of “assessment management”, under the section of “homework management”, teachers can post and correct their homework, and set the submission time limit. In the “examination paper management”, teachers can edit the examination questions online. The code of question bank is shown in Fig. 2.

In the “resource upload” module, teachers can upload high-quality network resources to the database, view the number of people who have learned, top and push important learning resources, or delete them. [5].

## 4 Conclusion

The online teaching platform of sports ideological and political course based on Web technology can complement the traditional teaching mode, and help contemporary college students to grow into qualified and all-round talents quickly under the requirements of socialist core values. And it also provides innovative practice for colleges and universities to effectively solve the core problems of “three questions of education” and promote the implementation of the educational policy of “cultivating people with moral integrity and educating people in an all-round way”. In the future exploration and research, we will continue to deepen the combination of curriculum and ideological and political education, and continue to deepen the combination of online and offline, so that online

teaching and education of ideological and political education in physical education can exert greater influence and make contributions to China's education.

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