



# Research on the Construction of Collaborative Education Management System in Colleges and Universities

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**Abstract.** The concept of collaborative education and its technology have been used for a long time in primary and secondary school education, like our lives are inseparable, in schools and families are the use of collaborative education, due to the wide range of use, so it has slowly been popularized. In university education, every link in education management is to help students' physical and mental development, ideological and political aspects to be improved, in collaborative education has not yet received a very important attention, in the technical has not been weighted. However, in university education, there are not many studies on the design of learning management systems and some new developments, but through content and self-analysis and related literature is relatively small. In this study, we can build a platform for students to learn and collaborative management system from the perspective of the needs of college students' education management, based on the "classroom education" student learning platform, which is also to bring favorable convenience to the school's teachers, and can develop smoothly on this system platform for learning and cooperative management, so as to facilitate the learning of a cooperative management system platform for students. After some research, it is necessary to summarize the necessity and creativity of the research into modules. At present, China's colleges and universities collaborative education is still in the experimental stage, although implemented under the national policy, and many colleges and universities have built pilot areas, the purpose is for students to better learn, but also to accumulate some very real experience, but in the development of the road, college education will appear bottleneck period, township schools will not get good development, because it is too remote and the environment is not good, so its pace of development is very slow. In general, the relocation and demand of college education cannot meet the needs of people's students at present [9].

**Keywords:** Collaborative Education · Student literacy · Educational management · System functionality

## 1 Introduction

The natural phenomena of society and the living conditions of our human beings are different, and people will become accustomed to life and naturally form habits. Peaches

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would fall from trees and study the laws of physics, so physics was formed. We are active every day, we will read newspapers and talk, and after people study, they will find that the study of social phenomena and the ability to understand things are of great significance to the development of society [8].

Also in educational activities, we will know that for children, whether it is school education or family education, these two are crucial and inseparable. The essence of these educations is what we need to explore, and we must grasp its essence, which will become the most important guarantee for education.

In recent years, the development of new disciplines and technologies, new disciplines often analyze its social essence, and realize the integration between disciplines. Collaborative education is a very common educational phenomenon, but through research to discuss its importance, essence, function are very necessary theory, in other words, can promote the development of collaborative education, leading the development of education to a new era.

## **2 Construction of Collaborative Education Management System of Colleges and Universities**

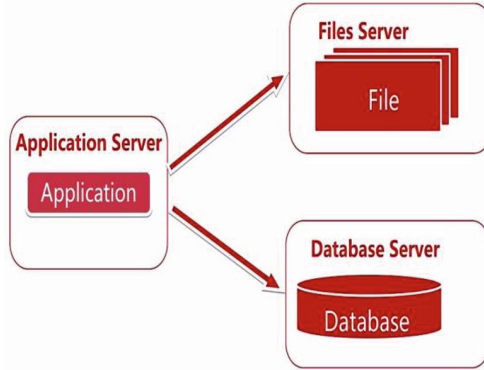
### **2.1 Multi-party Collaborative Education to Strengthen Student Literacy**

In the education of colleges and universities, the teaching of college students includes professional courses, mental health courses, teacher training and student skills and other aspects of training education. Although each university has a strong teaching force and some problems in cultivating and importing some high-level talents. But in other aspects, the problem is more serious, so in terms of the loss of social talent, it is because of the problem of political literacy, and such a problem will lead to some harm. The effective training of college students, if there is no strong psychological quality, students will become very defeated after entering the society, which will seriously affect the students' life and learning mentality, and even bring adverse effects to the social atmosphere [10].

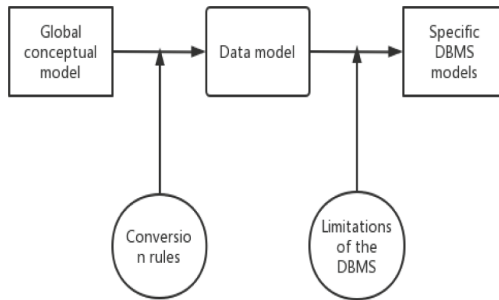
The literacy of ability usually includes work ability, organizational ability, self-regulation ability, innovation ability and other qualities, which has become an important force affecting the development of young talents. Colleges and universities rarely carry out extracurricular practical activities, which will lack a certain reliance for some students with weak practical ability. Many students in the learning of theoretical knowledge will often be lower than the surface, there is no deep access to comprehensive quality, in the process of talent training, although they will do their best to consider, but there will be a certain lack in education. The way of education management should be strengthened, multi-faceted coordination and cooperation should be realized, and efforts should be made to let students have balanced development in all aspects of quality, and social talents with great social influence should be able to work. This is shown in Fig. 1 [11].

### **2.2 Multi-faceted Collaborative Education Promotes the Improvement of Teachers' Management Skills**

In higher education, the education team of college students will have many aspects, such as ideological and political teachers, counselors, and professional teaching teachers.



**Fig. 1.** Flowchart of collaborative education



**Fig. 2.** Educational skills operation

In the process of education management, students will also lead to students not learning seriously because of the unilateral influence of an education administrator, and they will fully understand the psychological changes such as students’ learning improvement, and many of the students’ skills or ideological dynamics are often reflected in all aspects of cooperation. In the process of observing students, it is also necessary to communicate and cooperate with each other on skills, create good conditions for students’ better development, learn to see problems from themselves first, and then find a suitable grasp of students’ learning from other places. This is shown in Fig. 2 [12].

### 3 Strategies for Collaborative Education Management Systems in Colleges and Universities

By investigating the needs of teachers and students in the process of education management in colleges and universities, this article will carry out some strategic collation, which can effectively combine the combination with strategy, that is, some characteristics and preferences of the education management system [7].

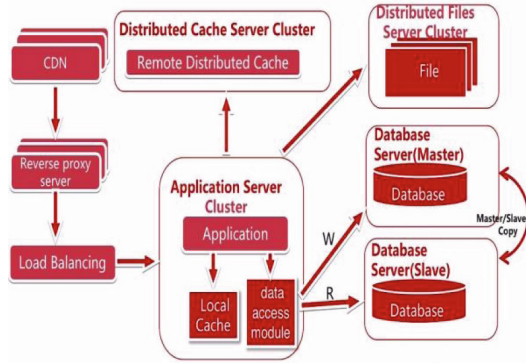


Fig. 3. Collaborative education management system strategy

**3.1 The System Supports Multi-faceted Collaborative Education Management**

From the perspective of education, the function of the system supports the teacher’s curriculum teaching management function, other school administrators have a comprehensive management function of thinking, psychology, practical activities and other aspects of various types of management personnel, school education and social practice have a close relationship, and at the same time have the interconnection between aspects, which is also the most important functional feature of the system [3].

**3.2 Ease and Operation of the System**

The construction of the system does not necessarily require a very complex method, the system only needs to be simple and clear, and it is easy to use as its ultimate goal. The whole system uses JSP Web technology, the database has a strong storage capacity, and the whole system has the main functional features [13].

**3.3 The System Supports Students to Learn the Analysis of Big Data**

As a result, many of the current collaborative education of colleges and universities are developing towards learning big data analysis, with a student learning atmosphere, can promote students to learn fully in learning, research shows that it can achieve user participation in many aspects of the system and strengthen the further management of education. The above is the functional strategy shown in Fig. 3 [14].

All kinds of users according to the corresponding permissions to achieve the function of reading and writing the database indirectly through the Web server, provided that the connection between the Web server and the database must be established, and the system uses ADO technology to achieve the Web-side ASP. NET’s connection to a Microsoft SQL Server database. In the project web. Configure the database connection in the config file and get the connection string in the program code. The web file configuration is as follows:

```

< appSettings >
  < add key = " ConnectionString " value = "
server=10.150.11.61; database = DBTCPMS; uid = sa;
pwd=sal23; Pooling = true; Max pool size = 60; Min
Pool Size =10" Connect
  Timeout =20">
</ appSettings >
    
```

The connection to the database can then be implemented in code by calling the following statement.

### 4 System Function Design

In the eyes of most people, we have innovation in the design of system functions, in the function analysis will also have different insights, in the analysis of functions and requirements, collaborative education platform users can be divided into system administrators and teachers will also have education managers these user types, etc., of which the system administrator for the development and maintenance of the system, it is necessary to consider the entire system, in the system can know that the entire system is divided into two parts, one for the system developers, The other is the user of the system, and other management users of the school also include counselors, professional teachers, etc. who are student managers with teaching tasks. For the relevant investigation and collation, we will know the overall requirements, and the overall efficacy and overall function of the design are shown in Fig. 4.

The system features focus on two aspects, online course management and collaborative education management modules. The Online Course Management module is mainly an online management function that supports teachers and students in practical activities when working on related courses. Among them, each module of the online course can be changed, in the case of this situation, we can analyze and manage the learning behavior

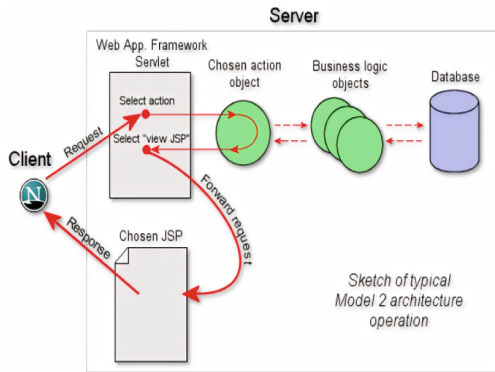


Fig. 4. Functions of the collaborative education management system

of students, students can carry out class and practical learning and operation through these functions, and can have their own ideas for corresponding learning and education work. We can learn about the collaborative education management module on resource sharing, or it can be reflected through online collaborative management, for all education managers to communicate accordingly, education managers will continue to pay attention to the corresponding students in different special situations, and should take the students of collaborative management as the object of coordination management, so that we can educate students as the object of long-term development and put sustainable development into all courses. All kinds of learning situations for mental health status, ideological dynamics, employment and entrepreneurship and other comprehensive quality, among them, many students in colleges and universities will rely on collaborative education, and for the management of the platform can also supervise their own learning behavior, online management and psychological self-improvement, fully prepare some prescribed learning logs for the development of various skills, have enough space for self-reflection and management, and effectively obtain a reasonable learning situation of multi-faceted teachers and workers. It has a certain reference to its learning ability, it takes a lot of help [2].

## 5 Implementation of System Functions

The implementation of the collaborative education management system consists of two important parts: the construction of the cloud service platform and the collaborative education client [1]. In order to create a harmonious collaborative education platform for students, break the recognition between the school and the family, reduce the gap between the two, and make truly effective collaborative education a new type of education. This has played a role in improving parental awareness of the school. At the same time, the purpose of adding a collaborative education platform system is to improve the relationship between home and school and increase parents' understanding of students during school. The implementation of the system will be analyzed from the following aspects.

### 5.1 Implementation of Cloud Service Platform

The use of server architecture to develop a Web page, the first is to enter their own personal information login, when we successfully log in, we can according to the permissions we have, access to the specified page. Different permissions have different operations in different page operations, which will produce relevant data, which is closely related to the user's use. Data during user interaction is saved in MySQL, and user logs are also saved in the server. In addition, the web page will also appear some resource management function data, it will also be saved to the database, the resource file saved in MySQL is currently the most absolute way. This is shown in Fig. 5 [15].

### 5.2 Android Client Implementation

Using tools developed by Android, the service functions and interaction logic that implement its users basically have interactive logic. In the logic of the Android interface, the

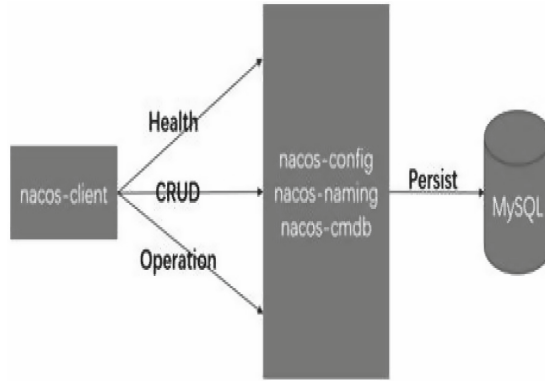


Fig. 5. Schematic diagram of the MySQL function

login interface with different permission functions will be judged by the permissions after logging in, and among the users with inconsistent permissions, the system will directly send some important data and interactive information of the user to the cloud through the wireless network, and the platform will also carry out some specific content on the function according to the transmission function [4].

The realization of the client will make users more conducive to the use and research of the collaborative education management system, so that students can have a platform system that is easy to learn. Most collaborative education platforms are no longer information Internet systems that integrate home and school. To integrate most of the system functions of collaborative education websites, they must also have the function of information release. Teachers can acquire relevant knowledge of home education through the Android client, and students can read and achieve the best learning effect on the platform at the same time.

## 6 Conclusion

Through the exploration of this article, we can know that teachers and other educational administrators in schools have more of a collaborative education method, and there will be different roles in teaching, so that basic information can be obtained at the first time, and the same can also be based on its dynamics to understand, but also to make teaching more successful and purposeful. At the same time, in the case of having their own desire to learn, students will judge according to their own interests, decide whether they will be interested in learning, do not get bored with learning, and help students form a good quality, and the learning needs can be met. In the initial formation and use of the system, the system still needs to be improved, for the instability of the function, and then it must be continuously updated [5].

Modern information technology is widely used in our education and will enter a new era of learning and education. In this new era, there will be a variety of new types of education systems, there is interactivity between the various systems, collaborative education is a new situation of education and teaching organization, to achieve the modernization of education [6].

At the same time, experimental research can test the effect of collaborative education management system applied to home-school interaction. Through experiments, we concluded that the collaborative education platform can improve parents' awareness of school decision-making, planning and other activities, enhance parents' recognition of teachers' work, and increase parents' understanding of school performance, but it does not promote the relationship between parents and teachers. Exchanges between. From this, we know that the application of collaborative education platform to home-school interaction improves the relationship between home and school to a certain extent, and realizes the effective interaction between school and family. Although, in the process of experiment, the collaborative education platform did not promote the interaction between parents, but in future research, we need to continuously improve the function of the platform and provide better methods for the practice of collaborative management system. At the same time, we will spend more energy to explore this system and action research and use a variety of evaluation methods to examine the effect of collaborative education platforms in improving children's academic performance and study habits, and to better promote students and teachers. Barrier-free communication.

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