

Research on Innovative Ways of Talent Training Mode Combining Computer-Aided Teaching with Student Management

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Abstract. In order to promote the innovation and development of talent training mode combining computer-aided teaching with student management, this paper analyzes the talent training mode of colleges and universities with computer-aided technology, constructs an intelligent platform suitable for modern colleges and universities, analyzes the demand of college students' talent training mode through demand analysis, constructs the system function module, fully analyzes the system operation principle and information transmission module, and puts forward the system construction scheme. Moreover, this paper analyzes the system from the aspects of personnel training, college examination and practical work, and obtains several structural modules of the system. In order to verify the practical effect of the system platform proposed in this paper, this paper tests the effect of the model proposed in this paper on talent training in colleges and universities through experimental teaching mode.

Keywords. Computer aided, teaching; student management, talent training

1. Introduction

Any organization cannot do without leaders, and our talent team also needs outstanding employees with both moral and talent as leaders. In the process of talent team advancement, training work is like a gas station, constantly providing energy or adding new forces to the team. The driving force behind this team's winding progress is our perfect "expert management system", which should reflect high skills. The superiority of high-tech talents in terms of welfare benefits and personal development motivates employees to delve into technology, actively participate in training, view training as a benefit, strive to take the path of technological and skill development, and create a good atmosphere of "respecting knowledge and talents", gradually forming a team structure with clear goals for talent development. During the process of serving as a gas station, the training system should regularly organize targeted technical and skill training courses. The most important thing is that the training targets are accurate, the training content is targeted, and from organization to promotion, the most basic point

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should be reflected: "training is not for training, but for development". Make training an organizational or personal need, which is also another perspective of combining training with enterprise management, Personal development requires training

Universities should change their previous mentality of convergence and imitation, and leverage their heterogeneity advantages. They should possess the knowledge and skills of IAE(innovation and entrepreneurship), as well as the theoretical and practical abilities [1].

Through the construction of a school collaborative education mechanism, universities can integrate and share the advantageous resources of other schools in curriculum teaching, teaching staff, talent cultivation, and other aspects, promoting teacher recruitment, student exchange, course selection, and credit recognition among universities, making the cultivation of innovative and creative talents more flexible and compatible[2]. On the other hand, universities can further explore their own advantages and characteristics, promote the intersection and integration of their disciplines and majors, and through collaborative interaction between disciplines and majors, add interdisciplinary majors and courses to explore the path of cultivating innovative and entrepreneurial talents[3].

The collaborative cooperation between universities and enterprises can complement and promote the advantageous resources of both parties. Universities can receive financial support from enterprises and facilitate the transfer of technology and the application of scientific research results. Enterprises can promote their continuous innovation and development by sharing knowledge innovation, talent advantages, and research laboratories through collaborative cooperation with universities[4]. The construction of a collaborative education mechanism between schools and enterprises can promote the cultivation of innovative and practical teaching courses, and jointly cultivate innovative and entrepreneurial talents[5]. This is of great significance for the development of maker culture and maker economy. In the process of collaborative education between schools and enterprises, it can stimulate students' awareness and inspiration for IAE, encourage the implementation of entrepreneurial projects, help students independently establish "specialized, refined, and innovative" small and micro enterprises, and promote close connections between industry, academia, research and application[6].

The construction of a collaborative education mechanism between universities and local governments can strengthen the collaborative interaction between universities and local governments[7]. Under the guidance and support of local policies, universities can improve the openness and utilization of scientific and technological innovation resources, achieve the sharing of platforms such as university science and technology parks, entrepreneurship parks, and incubation bases, build off campus IAE internship bases, and unify them with the curriculum teaching and practical activities of on campus IAE talent cultivation, jointly cultivating IAE talents who dare to be the first and dare to think and create[8].

Organizational structure is a unit that coordinates various elements and resources such as human, material, and intellectual resources to achieve common goals, and reorganizes them in a certain form and structure to effectively carry out related activities. For IAE education, establishing effective organizational, management, and service institutions is the first problem. . As well as institutions that establish extensive external connections with society, such as various incubators, technology parks, venture capital institutions, etc., to form a positive interactive development ecosystem of innovation [9].

At the micro level, it is the rules and norms for universities to carry out educational activities. Standardizing the process of talent cultivation in a systematic manner is of great significance for ensuring the construction and operation of collaborative education mechanisms, and cultivating students' innovation awareness, entrepreneurial thinking, and practical skills[10].

Specifically, the profound practice of cultivating innovative and entrepreneurial talents from the perspective of the new era talent perspective. Firstly, it is necessary to consciously follow the growth laws of innovative and entrepreneurial talents. On the one hand, it is necessary to improve the theoretical literacy of IAE talents and provide an objective learning environment for their growth, including the construction of teaching staff, curriculum system, and cultivation evaluation system. On the other hand, it is necessary to improve the practical ability of IAE talents, providing them with a practical platform to understand the entrepreneurial process, accumulate relevant experience, and learn relevant knowledge. In addition, it is also necessary to cultivate good moral qualities for innovative entrepreneurs, so that they can achieve long-term development. The second is to create a good ecological environment for the growth of innovative and entrepreneurial talents. Firstly, create a favorable environment for the growth of innovative and entrepreneurial talents. We should provide high-quality resources with the principles of fairness and justice, including opportunities for continuous learning and further education, reasonable and perfect incentive mechanisms, and guarantee mechanisms after the failure of IAE. Secondly, create a favorable working environment for the growth of innovative and entrepreneurial talents. To make innovative and entrepreneurial talents have a place to use, break down barriers to talent mobility, form a good mechanism for maximizing talents, and provide a platform and career development space for innovative and entrepreneurial talents. Finally, create a policy environment conducive to talent IAE. We need to establish a sound policy system for IAE, help talents solve problems such as lack of initial funding for IAE, technology patents, and transition issues after IAE failure, so that talents have no worries in the process. Clarify the various main responsibilities of talents, including government departments, higher education institutions, and enterprise research units, clarify the various functions of each subject in talent IAE, reasonably divide labor, form a sound IAE system [11].

Combining with computer-aided technology, this paper analyzes the talent training mode in colleges and universities, constructs an intelligent platform suitable for talent training in modern colleges and universities, and promotes the output efficiency of talents in colleges and universities.

2. Talent training innovation platform

2.1. Platform functional requirements analysis

Training quality management information system should ensure the confidentiality of data, such as students' teaching evaluation information, attendance information of academic affairs department and teachers' self-evaluation information, etc., which should not be obtained by unauthorized users.

The training quality management information system should realize the corresponding prompt information and rejection function when the data input is wrong.

When inputting effective data information, it can satisfy correct business processing, so that users can get accurate data information and processing results.

Second, the data of teachers' attendance, teachers' self-evaluation and students' evaluation of teaching entered in the training quality evaluation system should be consistent with the data of performance evaluation in the training quality evaluation system. When relevant teachers query these basic information.

Third, the training quality management information system should respond quickly when the functions such as query, modification and deletion are realized, so that users can query effective data in time, and students, teachers and academic affairs departments can make corresponding decisions in time according to the data.

Fourth, the training quality management information system should be able to timely and accurate release of course information. When the teaching department for course information changes, it can achieve synchronous updates, and can enable students and teachers to accurately find relevant documents.

Fifth, the training quality management information system should fully consider the expandability of system functions to ensure that in future use if there are new requirements generated can develop more and more powerful functions in time. Moreover, the system should be as simple and easy to operate as possible, with a good man-machine interface, which is convenient for users to operate.

2.2. System architecture design

The main entities included in the process of training quality management information system include: school academic affairs department, teachers and students. The main subsystems are: training plan system, training quality control system, training quality evaluation system, training quality assessment system. The main documents are: training objectives, course plans, teachers' self-evaluation results, students' evaluation results, teachers' attendance results.

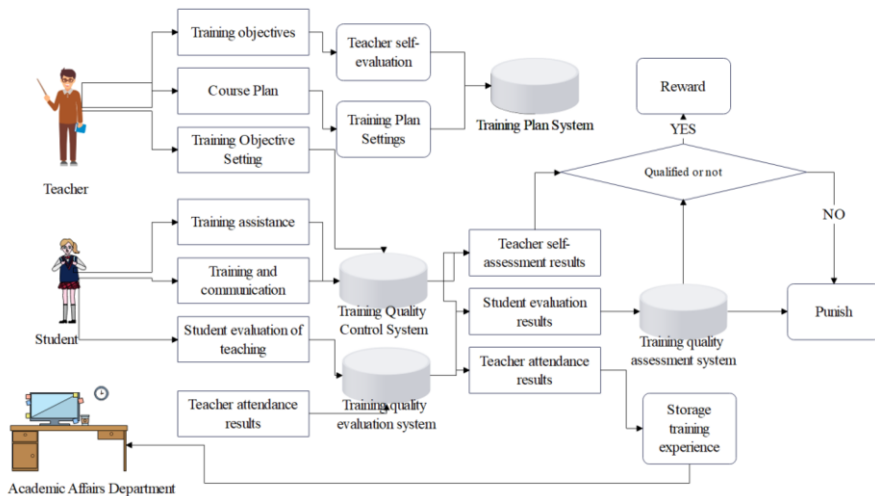


Figure 1. Flow chart of training quality management information system

The training quality assessment system should evaluate the performance of teachers and judge whether they are qualified. If they are qualified, teachers will be rewarded, and if they are unqualified, they will be punished accordingly. The assessment results are linked with teachers' bonuses, which can motivate teachers more. Training experience summary is to sum up and save the experience summarized by teachers in the course of course development, and will be transmitted to teachers and academic affairs departments, so as to provide a basis for the setting of new training courses in the future. MyBatis maps POJO (plain Java objects) to database records with simple XML configuration and annotations, without writing complex JDBC code and manual parameter setting. Moreover, it can be easily integrated with Spring, and its architecture is shown in Figure 2:

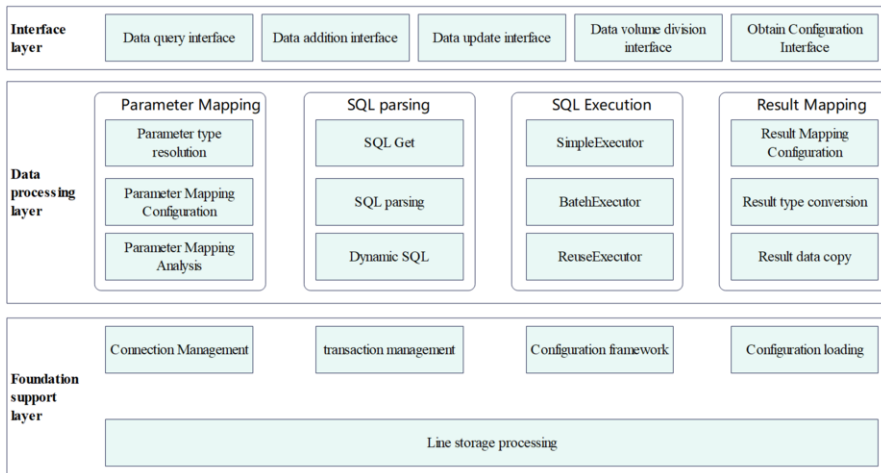


Figure 2. MyBatis architecture diagram

The training platform assigns AppID to the access system, and the operation of the access system in the training background will record AppID to distinguish the data authority. Administrators manage the data of different access systems according to AppID. Then, the super administrator logs in to the admin training platform using a separate admin console application (a special AppID). According to the user group, the website is integrated with the corresponding user single sign-on system. The training platform does not participate in the login authentication operation of the business system. When the website needs to call the training platform service or switch to the training management background, the user-defined authority authentication system of the training platform is used, as shown in Figure 3.

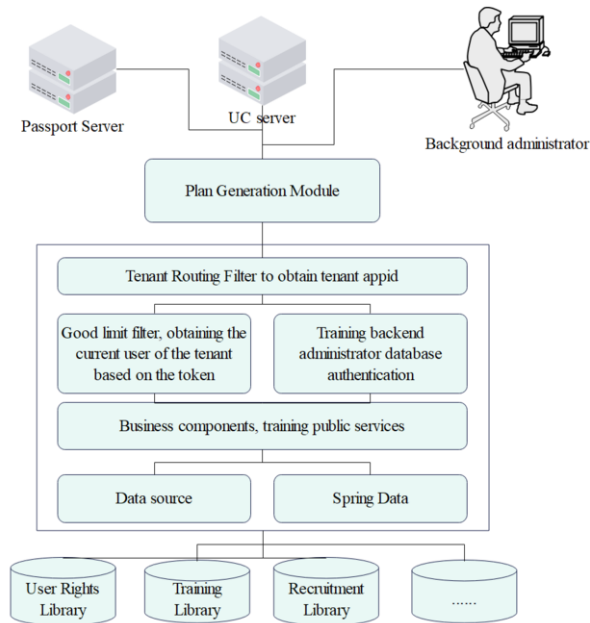


Figure 3. Multi-application access scheme of training platform

By analyzing the function and performance requirements, combined with SSH framework, we can get the overall framework of online examination system as shown in Figure 4.

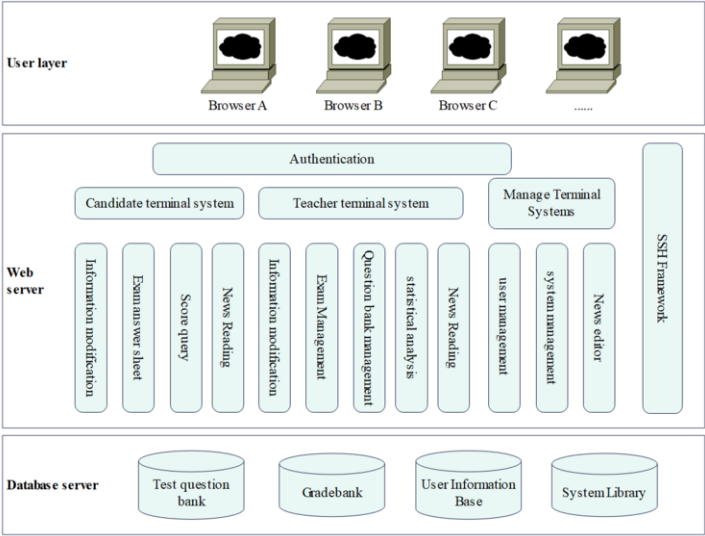


Figure 4. Overall architecture of online examination system

Users (including candidates, teachers and administrators) can use various browsers, such as IE browser, Opera browser and FireFox browser given in the figure, and can log in to the Web server. There are three subsystems in the Web server layer, namely examinee terminal system, teacher terminal system and management terminal system. To enter these three subsystems, we need to pass the authentication of identity authentication module first. Moreover, users with different identities will enter different subsystems, and each subsystem provides different functions to users. Among them, examinee subsystem mainly includes examination, score inquiry and news reading, teacher subsystem mainly includes examination management, question bank management and examination result statistics, while management subsystem mainly includes user management, system management and news editing.

The network topology of the online examination system is shown in Figure 3. Including database server, Web server, switch, router and firewall, etc. Among them, the remote client logs in to the server through the Internet and performs various operations. The internal network and the server are in the same region, so users can log in to the server directly and carry out various operations.

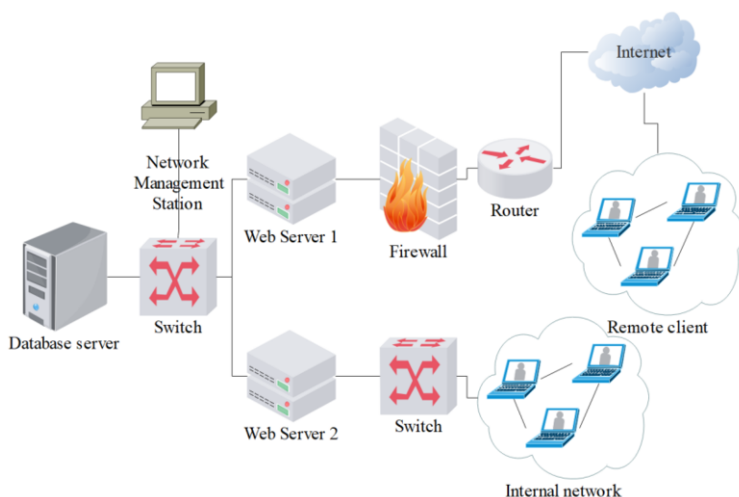


Figure 5. Network topology diagram of online examination system

In this system, the concepts related to course include course, course chapters, handouts, question bank and so on. A course can have multiple teacher, a course consists of several chapters with serial numbers and sequences between them, and a single chapter consists of videos and text handouts. Moreover, a course has a knowledge tree and a question bank. If a course is established in this system, it provides an interface for establishing related entities. For example, if a course is created and the course is purchased by the corresponding enterprise, it is necessary to establish a corresponding table between the course and the enterprise. If the course schedule is not established, the course cannot be purchased. Similarly, before deleting a course, the allocation relationship of the course must be deleted to avoid isolated records. The block diagram of the overall architecture model is shown in Figure 6.

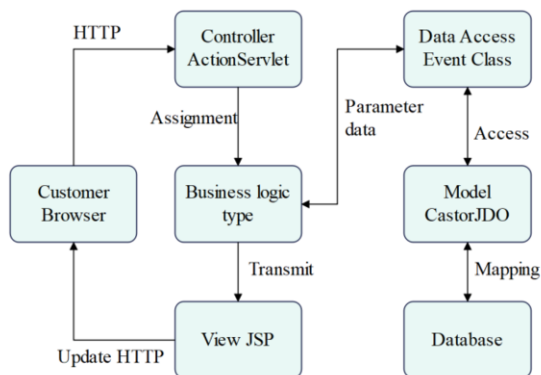


Figure 6. Block diagram of overall architecture model

3. Effect test of talent training platform

Meanwhile, this paper takes a college student as an example, these students' academic achievements are close, and they have no experience in social work. Therefore, it can be considered that the students' academic achievements, work experience and work ability before and after the experiment are basically the same, and experimental teaching can be carried out.

After three months of training, these people will work as internships, and then their internships will be evaluated. This paper compares the two groups mainly through work assessment, counts the working ability, and obtains the control results shown in Table 1.

Table 1. Evaluation of talent training effect

Num	Experimental group	Control group
1	68.91	66.27
2	62.16	55.20
3	63.15	56.80
4	67.73	62.38
5	72.18	61.83
6	63.84	63.02
7	61.85	63.75
8	64.96	68.45
9	61.05	60.27
10	72.29	69.98
11	67.92	63.44
12	72.71	57.90

From Table 1, it can be seen that the average working ability of the experimental group is 67, and that of the control group is 62. That is, after three months of training, the working ability of the experimental group is obviously higher than that of the control group. Therefore, the platform for innovative training of talents proposed in this paper has good results and can effectively promote the training of talents.

4. Conclusion

The cultivation of innovative and entrepreneurial talents in colleges and universities cannot be a traditional classroom teaching method, but should give full play to students' initiative and creativity. Meanwhile, school teachers should also be different from traditional education and teaching methods in the process of cultivating students' innovation and creativity, and adopt diversified and professional teaching methods, such as extracurricular practical learning, innovative training projects, cultural communication, situational teaching and other new teaching methods. At the same time, colleges and universities must also provide comprehensive and effective institutional guarantee, improve the construction of education and teaching infrastructure, enhance students' innovative consciousness, cultivate students' entrepreneurial skills, and take comprehensive improvement of personnel training quality as the fundamental standard. Combining with computer-aided technology, this paper analyzes the talent training mode in colleges and universities, and constructs an intelligent platform suitable for talent training in modern colleges and universities. Through the experimental study, we can see that the talent innovation training platform proposed in this paper has a good effect and can effectively promote the work of talent training.

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