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Personal Training Evaluation System Design for High Education

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ABSTRACT

Coordinating the relation between curriculum system, teacher achievements and student academic records is an urgent question to be solved. Solving the question needs a multi-disciplinary knowledge, multi-sectoral cooperation. Related operations include qualification, evaluation of quantitative management, process guidance, personality analysis and rating subsystems. In order to solve the problem of colleges management, the colleges urgently need an intelligent management system for the evaluation, guidance and auditing of academic records. First of all, the paper analyzes the state of academic records at home and abroad. This paper puts forward the records system of college students' academic records based on Browser / Server structure, which is based on the records of relevant scholars and the influencing factors of practice, analysis and determination of academic records. Through the analysis of the system business, the demand and function, the system composition is constructed. Then, the evaluation system will be designed. Through the basic information management, certificate management, evaluation management and student academic model design, the system design is finished. Finally, the paper analyzes the role of the evaluation system. The system is able to systematically and standardize most of the work in the course, teacher, and academic records management workflow. The system not only guarantees the quality of teaching, but also makes academic records evaluation more effective, more powerful process management, and effective communication.

Keywords: evaluation system, information management, certificate management, evaluation management, the academic record model

PRESENT SITUATION ANALYSIS

The school's performance appraisal for teachers has long adopted a variety of network-based assessment system in some developed countries abroad. Schools have a detailed overview of the teaching situation of each instructor by these systems. These systems make it easy for schools to develop rules and regulations for reward and punishment, home reasonable management of faculty. For example, the Massachusetts Institute of Technology (MIT) also has its own teaching assessment method. Its assessment method is organized by the students spontaneously, for the purpose of helping the next student (Fangfang, & Jinghuan, 2014). Attaching great importance to the

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State of the literature

- The Massachusetts Institute of Technology (MIT) has its own teaching assessment method. Its assessment method is organized by the students spontaneously, for the purpose of helping the next student
- Colleges are aware of the importance of performance appraisal for teachers
- The Ministry of Education launched a "high-level creative talent project", "211 Project" and a series of measures. During the development of the 13th Five-Year Plan, the computer science and technology major must adapt to social and economic development

Contribution of this paper to the literature

- The system evaluates students' academic records from various aspects and viewpoints. The future is to intend the system functions, and gradually expanded by the student academic records evaluation to integrate the college administrators, teachers and students of the evaluation system. The system will become the basic data platform for the comprehensive quality evaluation of college students.
- The implementation of the system is able to systematize and standardize most of the work in the curriculum, teacher and academic records management process.
- The system improves the quality of the students' academic records. The system can increase the students, teachers and colleges' three channels of communication, which strengthens the communication between each other. This will not only guarantee the quality of teaching, but also improve teaching efficiency.

professionalism of teachers and the spirit of business study at the Massachusetts Institute of Technology. It emphasizes the combination of theory and practice, as well as the interaction between professors and students. In the teaching quality and teacher's work evaluation around these aspects to carry out. Colleges are aware of the importance of performance appraisal for teachers in our country. For example, the Ministry of Personnel and the Ministry of Education jointly issued the Guidance on the Administration of Job Setting in Colleges (No. 5 [2007] of the People's Republic of China) on May 7, 2007. It issued by the Ministry of Education, "The Ministry of Education on the compulsory education school teachers' performance appraisal work guidance" pointed out: "complete teacher performance assessment work is compulsory education schools to implement the performance wage system of the inevitable requirement" in December 2008. These directive documents directly and clearly emphasize the importance of the performance appraisal of teachers and related methods (Dongping, 2012). By using technical means to establish a performance appraisal system can be more reasonable to the teachers of scientific management and objective evaluation (Yunhuo, 2010). The system can improve the teacher's work attitude and work enthusiasm, and promote the enthusiasm of teachers. And the system drives the school's economic benefits through the use of scientific information management tools (Zhiming, 2008).

The academic records evaluation system of college students refers to the comprehensive, accurate, long-term and temporary understanding and record of college students' academic records. It is based on appropriate standards for a reasonable record. Then according to the records results to carry out targeted guidance, supervision and education. The evaluation of academic records of college students is an important content of college teaching and student management. It is directly related to the realization of higher education teaching objectives and the professional development of students and the ability to conduct scientific and accurate judgments, and the results of feedback to the educational practice to improve teaching behavior (Yingqiang, 2014). The evaluation of academic records of students is of great significance not only for the inspection of colleges to improve teaching quality, but also to optimize student management and to promote education and teaching reform. Whether the evaluation is scientific or rigorous is related to the authority and impartiality of teaching and management in colleges and universities (Di, & Gang, 2002).

The state puts forward that "The whole party and society as a whole should attach great importance to the important role of knowledge innovation and talent development in economic development and social progress so that science and education can truly become a broad consensus and practical action for the whole nation". The

Ministry of Education launched a "high-level creative talent project", "211 Project" and a series of measures. China's education is adapting to the needs of economic development. Educational innovation has become an objective requirement for professional development. During the development of the 13th Five-Year Plan, the computer science and technology major must adapt to social and economic development (Zhaoxin, 2013). Through the analysis of the status quo in teaching, try to find a clear professional development strategy. Constitute the curriculum, teachers, students to promote each other, and jointly improve the sustainable development of teaching model, by the design of curriculum system, the design of teacher performance and student achievement evaluation system (Yilei, & Peng, 2014).

Foreign scholars have carried out more research on the academic records of undergraduates. One of the most famous is the theory of institutional influence. Early institutional influence theory confirms that institutional characteristics and student behavior are two important factors in the impact of individual students. Foreign scholars often use academic records performance include students on the degree of expectations, after graduation income level, graduation rate, degree acquisition rate. The proportion of students with lower academic records can also be used as a quantitative indicator of the overall academic records of the student. The study and practice of foreign academic records evaluation have provided the experience for our research and practice. We need to establish a scientific, rigorous quantitative analysis of academic records standards. Therefore, multi-channel, multi-view development of evaluation resources is the future direction of research and practice.

The relevant management work of the university has not been liberated from the cumbersome manual operation. The management information is not uniformly, do not share, so an information island is formed. For example, the curriculum does not keep up with the requirements of the time, the construction of teachers is relatively backward, college students' academic records evaluation of a single and many other issues. The study and development of college students is the core of higher education quality. The evaluation of curriculum teachers and students' academic records are an important factor influencing college students' study and employment (Min, 2006).

At present, the evaluation of student's academic records in colleges are limited to a fixed interval. It is necessary to ensure that the depth professional knowledge, taking into account the students have a more complete theoretical foundation, but also to develop student better practical ability. This is a difficult goal. In colleges or universities, evaluating means are simple, lack of scientific considerations, and mostly accord to examination results. The evaluation cannot reflect the ability in all aspects of college students (Yangyin, 2014). For students with poor academic records, colleges and universities lack early warning and countermeasures, and there is no corresponding tracking means for student academic records. How to reflect the teacher's teaching workload, to avoid the phenomenon of doing more than simple to lead to contempt for teachers to teach enthusiasm (Chengsi, Yilei, & Haixia, 2016).

This paper proposed an evaluating system for college students based on Browser / Server structure, which is based on the records of relevant scholars and the influencing factors of practice, analysis and determination of academic records. Through the treatment of students' academic records, it can provide the decision-making information of the students' learning situation to the teaching management department, so as to make effective management and teaching guidance program for the students' learning dynamic information.

The system helps students to cultivate their own learning ability and cultivate the sense of self-development. This is not only the development of learning level, but also the development of the whole personality perfect. Students can learn from their academic success stories and their weaknesses. Therefore, students can give themselves a suitable academic records positioning so as to reduce unnecessary detours. Students can clear their future efforts to learn the direction, and then develop good habits.

The system helps to promote the quality of university education. The systematic management and control of teacher achievement and student records can improve the effective improvement of professional courses in colleges and professions. The teacher's teaching and research activities to form a good support, so as to improve the quality of university education.

BUILD AN EVALUATION SYSTEM

Learning is the core task of college students in the college stage. All the activities of college students spread around learning. This is determined by the characteristics of college students. Generalized academic records refer to the ability of a student to acquire knowledge or develop in the process of learning the academic tasks of knowledge and skills acquisition, especially in academic subjects. Many scholars have different views on the academic records, such as achievement, ideological character, behavioral norms, learning attitude, interest and personality psychology, etc., or include the mastery of various disciplines, the development of various abilities level, learning the emotional state and so on (Cai, 2006). Academic records refer to the level of integration of students' abilities in their studies. It is the purpose of learning, but also learning to achieve the success of the process, and has a dual attribute (Wang & Wang, 2014).

Business Analysis

The evaluation software mainly includes the personal information submitted by the students, the evaluation of the teachers and their own students, certificates obtained, and other basic evaluation materials. The administrator provides the platform for the automatic management of the information such as the student's academic score, the teacher providing the basic materials such as attendance and learning evaluation.

Students can fill their own names through the system, national, party members, blood type, constellation, etc. The student uploads his various certificates, then waits for the administrator to approve. Students evaluate the performance of teachers and other students at the end of the semester. Finally, students can overview their overall academic scores, including personality analysis, evaluation information and academic records scores for all types of certificates.

Administrators can use the system to upload students' test scores for this semester. Administrators can configure the academic achievement evaluation model parameters, review the student's various certificates, and import the student's basic data. The administrator can also set up course group for each semester and export evaluation reports for students and teachers.

Instructors can use the system to count school attendance and evaluate students' performance at the end of the term. Teachers can also view the student comments on their own teaching situation. Through the emotional analysis can be more accurate evaluation of the teacher's level of working hard, rather than the simple evaluation to teachers as did before.

Based on the model parameter settings, the system will analyze students' scores from crosswise aspects, respectively and longitudinal. Through the evaluation of the student emotional analysis, as well as the students to obtain various types of certificates to calculate, and finally have the total academic scores.

The activities that describe the student's academic scores process are shown in [Figure 1](#).

Demand Analysis

The system combines the characteristics of student evaluation management to achieve the evaluation process of network management. This makes it easy for professionals, teachers and students to obtain information. The goal of the system is to achieve online performance analysis and management, to submit personal materials, personality analysis and management, the formation of evaluation reports. The system uses Unified Modeling Language (UML) for object-oriented modeling design. This will ensure that the development process is fluent and easier to maintain. In the design process, some pre-planning must be carried out to ensure that the decision is correct. First, the system is properly analyzed so that the role of the system is determined in order to clarify the responsibilities of the various users in the system. The participants of the system include educational administrators, teachers and students. The roles of above participants are simply analyzed as follows. The system is mainly used for the following categories of school members:

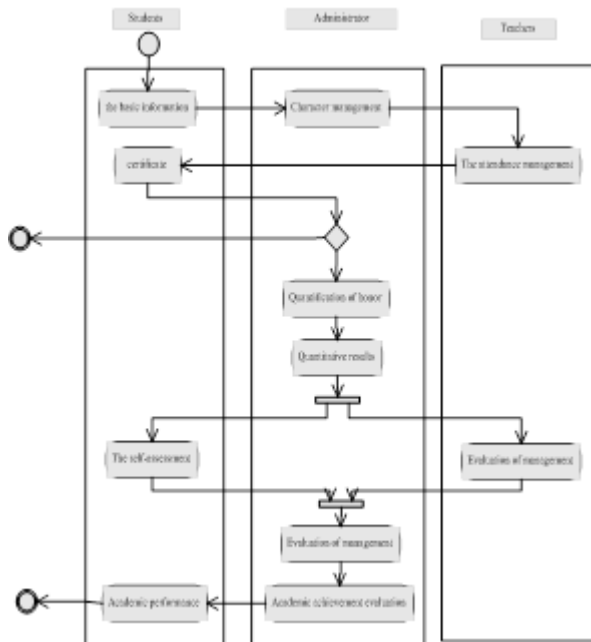


Figure 1. System Activity Diagram

- (1) The system administrator's job is to complete the system management and maintenance. Such as adding an administrator, setting up system configuration, modifying personal information, adding a professional, class and course, viewing a professional, viewing student grades, viewing honorary certificates, adding announcements, viewing announcements, uploading / downloading files, viewing student scores, historical data removal, and audit the various types of certificates submitted by students.
- (2) The teachers. The jurisdiction of the teachers includes the information of the revision, the exchange with the student, the attendance student, the evaluation of the student at the end of the period, and the student's final evaluation.
- (3) Students. Students are required to log in to the system via the Internet in a hostel or other computer premises. Students can easily complete their basic information (student number, name, age, birthday, blood type, class, province, etc.). Students can submit comments to course teachers and class teachers and classmates. Students can submit the certificate obtained, such as College English Test 4 (CET 4) and CET6 certificate, the national computer software level examination certificate, patent certificate, published papers and so on. These submissions are approved by the administrators. In addition, students can view announcements and their score.

Functional Analysis

The following basic functions should be realized by the system:

1. **Manage Basic Information:** Students can fill out their basic information, see their grades, rank in a semester, and check the teacher and other students on their own evaluation after the login system.
2. **Honor Management:** Students are required to submit their own documents of social activities in each semester. Such as CET 4 and CET 6 certificate, the national computer software level examination certificate, patent certificate, published papers, and so on. These submissions are approved by the administrators. The system automatically presents an intelligent proposal based on these honors, academic scores and teacher reviews give students a comprehensive evaluation.

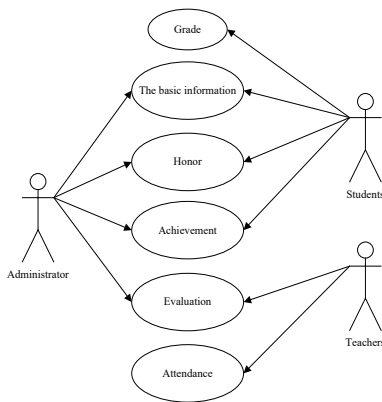


Figure 2. Management process diagram

3. **Personality Management:** according to blood type, constellations and other speculation analysis of the student's character, so that targeted management of the students.
4. **Score Management:** The statistics of the module include the student's grade of semester, the abscissa changes the student's learning ranking change. The module can be used to compare the student's performance changes from a lengthways perspective and analyze the causes of the changes intelligently. The system can be crosswise compare a student with other students of the difference, which is relatively weak analysis, which is relatively strong.
5. **Attendance Management:** course teachers in class when the students attendance, as the usual results and the final evaluation of the sentence.
6. **Emotional Analysis and Management:** the evaluation of the information of students according to the emotional dictionary method, emotional analysis, evaluation of information as a commendatory or derogatory, and statistical analysis.
7. **Academic Record Quantitative Management:** Academic record consists of three parts in this subject. The first part is learning scores, which is on behalf of intelligence quotient and learning attitude. The second part is the evaluation of the results, which is on behalf of emotion quotient and attitude. The third part is the honor analysis, which is on behalf of the ability of social activities. The academic records analysis is a combination of academic records analysis, evaluation analysis, and honor analysis quantified, according to the analysis results issued academic records report.

The academic records evaluation system of college students refers to the comprehensive, accurate, long-term and temporary understanding and record of college students' academic records. It is based on appropriate standards for a reasonable record. And then according to the record result to carry out targeted guidance, supervision and education. In the process of developing university records evaluation system, this paper focuses on the following elements from the perspective of educational managers, teachers and students:

What is the most useful information for academic records systems?

How to obtain and analyze this information?

What is the way to make the information more clear?

Based on the above questions, we develop and improve the academic records system from the following aspects:

Concerned about the records of meaningful information, such as students of personal basic information, personality information, social activity ability information and academic records information. Each role can clearly reflect weaknesses and improvements of a student.

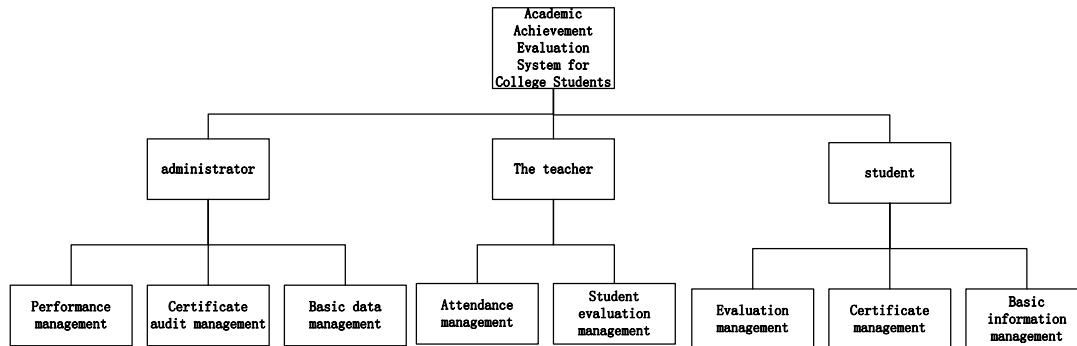


Figure 3. System Function Block Diagram

According to the user role difference, a different academic records report is obtained. Because academic records data is sensitive and privacy, it is not advisable for others to see the details of other students. Therefore, the system report is divided into the overall report of the administrator, teacher report, student personal report, and other gyp reports.

In order to visually and clearly find the record trends, we use text, forms, line graphs and other ways to present information. Such as through the text description and form, students can know their own course a course of achievement and other people's gap, through the line chart can know their own results since the change trend.

In order to help students seeing their academic records at the same time a clear understanding of the reasons for the emergence of the problem and the future direction of efforts, we will give a personalized intelligent advice in the student academic records report. According to the above analysis, a black diagram is shown in **Figure 3**.

EVALUATION SYSTEM DESIGN

Using Browser / Server architecture can make different users have different permissions, login to through the Web page in achieve their respective functions. For example, the administrator to carry out the management of basic information, students submit the certificate audit work. Import the student's grades per semester and set the parameters of the evaluation model. The teacher evaluates the student's class and achievements at the end of the period. Students can supplement and modify personal information and upload and manage the various certificates they received. Students can evaluate themselves, classmates, and teachers in the system during this semester. Students can calculate and see their academic records based on the model. According to the parameter setting of the model, the students will carry on the horizontal analysis and the longitudinal analysis to the examination result of the students, carry on the emotion analysis to the students' records, calculate the various kinds of certificates obtained by the students, and finally obtain the total academic records achievement.

Basic information management

Students can log into the system after the entry of personal information management and fill in personal information, such as their own name, nationality, height, party members, blood type, date of birth, and so on. The system according to the contents of personal information for information collection, through the date of birth automatically calculate the phase and constellation, combined with the blood type of character traits, and finally click on the submission after the entry database.

Certificate management

Students are required to submit their own documents of social activities in each semester. Such as CET 4 and CET 6 certificate, the national computer software level examination certificate, patent certificate, published papers and so on. These documents are reviewed by the administrator. The system automatically based on these

honors, academic records and teacher reviews give students a comprehensive records, and gives the wisdom of the proposal. Students can add honor and view honor in the system's honor management module. Add honor is to get their own access to the various types of certificates to the database, by the administrator to review, give the corresponding score.

Score management

Administrator users can input student scores of each semester into the database through batch processing function. With TXT format to store the results of each semester, and can be achieved through the text upload control import operation. After entering each semester, administrators can see the results per semester. If the data is too much, the administrator can search the toolbar to college number as a keyword to query individual student records. Administrators can edit, delete, and add actions to the student scores that are searched for, and can import them into excel to continue editing.

After storing the student's grade data, the system can analyze the changes in the student's grades since enrollment through the longitudinal academic results, and analyze the reasons for the changes. And the system can be crosswise learning score analysis of students and other students to compare the differences, which is relatively weak analysis, which is relatively strong. Students can view their crosswise learning score, longitudinal academic score, personality traits, and academic records analysis in the Personal Situation Analysis module.

Evaluation management

The evaluation is divided into the following categories: teacher evaluation for students, student evaluation for teachers, students for their own, and students for other students. The teacher can comment on the scores of the student at the end of the period. After completing the evaluation content, the teacher clicks the add button to add the evaluation information to the database. Students can evaluate the scores of teachers at the end of the period, and can view the teacher's own evaluation, to get the teacher's advice and guidance. The system can carry on the emotion analysis to the student's evaluation information according to the emotion dictionary method, evaluate each article as commendatory or derogatory, and carry on the statistical analysis.

Student self-evaluation is to guide students honestly and seriously self-examining in this semester of their own achievements, in order to help students continue to improve and develop. It is a student or teacher through a semester of observation and exchange. After the evaluation of others, the students who are evaluated through these personalized feedback to promote their academic progress. Past student reviews often use the "evaluation form" of this simple quantitative scoring approach, the achievements of the students cannot be a comprehensive evaluation, and the evaluation of the table is often less targeted. Therefore, use of emotional analysis of the evaluation of the contents of the content of praise, derogatory, neutral comment classification. This will help to fully examine all aspects of the students, to improve students' academic records is a great help.

The academic record model

The academic record in this subject is composed of three parts. The first part is learning scores, which is on behalf of intelligence quotient and learning attitude. The academic scores consists of the average scores rank and the number of failing to pass per semester since enrollment. The second part is the evaluation of the results, which is on behalf of emotion quotient and attitude. Evaluation of information achievement analysis, according to the emotional dictionary to establish emotional analysis model, praise, in the assessment, respectively, to be different coefficients, and that is not good enough, or which is good enough. The third most is the honor analysis, which is on behalf of social activities. According to his submission of various certificate materials for analysis, different materials score different. Among them, the academic records analysis is a combination of academic records analysis, evaluation analysis, honor analysis quantified, according to the analysis results issued academic records report. Detailed and comprehensive report for the college managers, teachers provide a large data based on the personalized report. Through the quality of their own teaching or class management for quality review, data comparison to understand the possible problems, and to provide a basis for further solutions to the problem. The

report also provides a basis for students to diagnose learning outcomes, identify deficiencies, and determine the direction of their efforts.

CONCLUSIONS

Conform to the "people-oriented" spirit of the times and the evaluation of academic records of the comprehensive and personalized requirements, the system construction of academic records system in the evaluation of content reflects the diversity of information collection and processing. The system embodies the combination of evaluation and self-evaluation on the subject. In the evaluation methods, it embodies the intelligence of emotion analysis and processing method. In the evaluation results on the combination of academic records, student personality traits, students under the classroom activities and ability to work.

The system evaluates students' academic records from various aspects and viewpoints, making the evaluation conclusion more comprehensive, scientific and persuasive. The future is to intend the system functions, and gradually expanded by the student academic records evaluation to integrate the college administrators, teachers and students of the evaluation system. And the system records the college administrators of the implementation of the various educational measures, the achievements of teachers and students of the various stages of academic development. The system will become the basic data platform for the comprehensive quality evaluation of college students. Therefore, all types of colleges and universities should be combined with their own situation in-depth study of academic records system, and actively promote the relevant practice to explore.

The theory that directed designing the system is novel, and has a better reference value. The implementation of the system is able to systematize and standardize most of the work in the curriculum, teacher and academic records management workflow. So that professional educational administration staff from the duplication of redundant work in the liberation of effective management to solve a series of problems:

The system makes academic records evaluation more convenient and effective: Statistics of student achievement, access to the certificate, teacher attendance data to achieve a certain degree of difficulty in the past manual operation. So the system development process is an important part of the data collection and statistical modules. Through this module, students can make their own results, curriculum, classmates and teachers' records without time and location limitation, which improves the validity of the data. The administrator can use the module to inquire about the student's personal and social activity information and to determine the student's achievement by reviewing the student's winning information and making the evaluation proceed smoothly.

Strengthened Process Management: Through the system, the College can effectively track students' four years of achievement process and keep abreast of academic progress at all stages. The college strengthens the process management and improves the quality of the students' academic records.

More Effective Communication: The system of news bulletin function, curriculum, teachers, students basic information query function to increase the students, teachers and colleges three channels of communication, which strengthens the communication between each other.

This will not only guarantee the quality of teaching, but also improve teaching efficiency. Without increasing the total class hours and reducing the content of teaching, the proposed system makes teachers work hard. So that a comprehensive, accurate and realistic records of teachers teaching, research and service achievements, to create a fair environment, to stimulate the enthusiasm of teachers work.

Teachers as an important part of national education, assessing teachers work achievements fairly, impartially and scientifically, the college can be found their own shortcomings and loopholes on management. Through the use of technical means to solve the existing problems to strengthen the college's internal rules and regulations, can quickly promote the college professional and professional development process.

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