ASP.NET Curriculum Reform Based on Projects

Houjun Liang¹, Rui Xie², Jiaming Xie³

¹School of Management Science and Engineering, Anhui University of Finance and Economics, Bengbu, 233030, China

²School of Accounting, Anhui University of Finance and Economics, Bengbu, 233030, China

³School of Statistics and Applied Mathematics, Anhui University of Finance and Economics, Bengbu, 233030, China

Abstract

After analyzing asp After the importance of net course and the problems existing in traditional teaching, this paper puts forward the idea of reforming the course through project teaching. Through the introduction of practical cases, group teaching and examination reform, the course teaching has improved students' practical ability and teamwork ability, and improved the teaching effect of the course.

Keywords

Asp NET; Project teaching; Group teaching.

1. Introduction

In today's society, with the rapid development of information technology, web developers have become urgently needed talents in many industries. ASP. Net is a major web development technology. Many colleges and universities have included it as a course in the training program of applied talents of computer major. ASP. Net course is a highly practical course in computer major, which is mainly to cultivate high-quality dynamic web page development talents to meet the growing market demand for web development technology talents.

ASP. Net is a computer professional software technology Net is one of the core courses in the development. Through course learning, students can cultivate their ability to develop dynamic websites, be familiar with the development process of enterprise websites, and develop the ability to compile standardized development documents; Expand students' autonomous learning ability and constantly enrich and improve themselves. Asp Net programming course mainly includes basic knowledge and advanced stage, including c# basic knowledge, control explanation and ado Net data access technology; The advanced stage includes Ajax technology, development cache technology, graphics and image and multimedia applications. The characteristics of computer majors are: Students' learning levels are uneven, and their learning and understanding of HTML, c# language, database and other aspects of the basic knowledge of the course are different; Students' self-control ability and autonomous learning ability are poor, the effect of classroom teaching is not ideal, and their ability to accept knowledge is different. Teachers need to stimulate learning interest, correctly guide and supervise learning. The traditional teaching mode is: the teaching form is single, mainly for the teacher to speak the courseware above and the students to listen below; The teaching content is divorced from the actual application, and there are only some simple cases and demonstrations, which are far from the actual development environment of enterprises; The examination form of the course is single, and the written examination is still the main form, which cannot reflect the students' practical ability.

Due to some disadvantages of traditional teaching methods and means, there is a disconnect between the knowledge learned by students and the actual job needs of the society, which leads

to students' inability to be competent for the job after graduation. Therefore, asp Net curriculum reform is imperative.

2. ASP. Net Course Teaching Status and Problems

ASP. Net course mainly includes asp Net basic knowledge, asp Net server control, common built-in objects, database programming, file operation, XML data operation, website design, system configuration and deployment, MVC framework, etc. Traditional teaching mainly focuses on chapter teaching, and students lack an overall understanding of knowledge points, resulting in a certain disconnect between students' ability and social needs. The problems of traditional teaching are mainly reflected in the following aspects:

(1) The teacher will asp Net knowledge points are scattered to each chapter and taught step by step. During the teaching process, some experiments are done to practice. Although students can master various knowledge points, the content they learn is actually isolated and lack of coherence. This situation makes it difficult for students to integrate the course content and apply it to the development process of specific projects, so they are not competent for the requirements of the society for web developers.

(2) The teaching method is relatively simple, mainly using multimedia PPT and demonstration methods to explain. When teachers teach, students can only listen passively and can't carry out actual operation and practice. The experimental teaching is usually carried out after a period of classroom teaching, and at this time, students have basically forgotten the program development ideas and skills that the teacher talked about in class, resulting in the unsatisfactory experimental effect. Experimental teaching is mainly based on confirmatory experiments, which also leads to students' lack of innovative consciousness, and it is difficult to improve their ability to analyze and solve practical problems.

(3) The course assessment is mainly written examination, and students' knowledge mastery is evaluated through an examination paper of the final examination. Because asp Net is a highly practical course, which mainly cultivates students' web programming ability. However, a single written examination is difficult to make a correct evaluation of students' learning situation, and cannot objectively reflect students' practical ability of web programming.

3. Curriculum Reform Based on Project Teaching

(1) The introduction of real case teaching process breaks the traditional teaching mode by chapter, and adopts the method of case teaching to introduce the actual real projects into the teaching process. During the teaching process, relevant knowledge points will be integrated into all links of the project, so that students can more clearly understand the knowledge and skills involved in the project development, and truly achieve the purpose of driving teaching through the project and improving students' practical ability. The course teaching is mainly based on project development, supplemented by teachers' teaching. Teachers act as project managers and students act as programmers to simulate the real working environment in the company to the greatest extent. The actual case used in this case teaching is the online examination system, which is divided into three roles: administrator, teacher and student. The functions of the administrator mainly include: adding, deleting, modifying and querying teacher information and student information. The functions of teachers mainly include: adding, deleting, modifying and querying the information of test questions; Arrange the examination, such as automatic test paper generation and test paper setting; It can automatically judge the objective questions and manually judge the subjective questions; Query and count the information of students' examination results. Students' functions mainly include: conducting online examinations and querying examination results.

(2) Group teaching

Due to the increasing scale of network programs, actual companies and enterprises need many people to cooperate in the development of specific projects. In order to cultivate students' teamwork ability in actual project development, this case teaching adopts the group teaching method. During the teaching process, according to the class capacity, 3-4 students are divided into a group, and a team leader is set up. Teachers should measure the development ability of each team and try to make every team member gain something in the process of project development. The team leader of each team is responsible for assigning the development tasks of the whole project to each team member. Teachers should change the previous teaching habits of giving priority to lectures in class and cultivate students' abilities in project planning and development and team cooperation through guidance.

(3) Reform of assessment form

Traditional asp Net course examination results are mainly composed of written examination results and usual performance results, but this examination method has some one sidedness and cannot reflect students' practical ability. In order to assess students' practical ability, teamwork ability and independent innovation ability, the assessment score can be changed into three parts: usual performance score, project acceptance score and team member evaluation score. The usual performance score accounts for 30%, mainly assessing students' attendance, work attitude and homework completion. The project acceptance score accounts for 50%, which mainly assesses the completion of tasks assigned by students in the group. The specific contents of project acceptance mainly include the completion of project function modules, the beauty of program interface, the standardization of program code and the perfection of project development documents. The evaluation results of team members account for 20%, mainly assessing students' teamwork ability and professional communication ability, which is obtained through the evaluation of students by team leaders and team members.

4. ASP. Net Programming Course Teaching Exploration

4.1 adhere to the project as the carrier, employment oriented, and do a good job in traditional classroom teaching asp Net programming teaching mode in recent years has been adhering to the project-based teaching as the carrier, combining teaching and learning. At present, the classroom teaching mode still takes project-based teaching as the main line, but it should be adjusted according to the characteristics of students in computer professional colleges and the job needs of enterprises, so as to realize employment orientation.

4.1.1 teaching content

From the perspective of teaching teachers, project-based teaching still needs to run through the whole teaching classroom, but the selection of projects should be targeted. It should not only be designed for the teaching content, highlight the key and difficult points of the teaching content, but also be close to the practical application, so as to arouse the students' interest in learning. The design of the project is still based on a small project in each chapter. Through the study of each chapter, students can design a complete work, which can enhance students' self-confidence and sense of achievement, so as to improve students' interest in learning; Part of a project implements the teaching materials of the whole course, and students are prone to fatigue. Give students an asp Net technology development is too difficult, so that students have the fear of difficulties from the first contact.

4.1.2 teaching methods

ASP. Net course involves more theoretical knowledge and strong practicality, so to do a good job in traditional classroom teaching and learning, we should focus on project examples to exercise students' practical ability. The teaching method should be that teachers are speaking and students are practicing; The teacher speaks and does while the students listen and practice.

In the classroom, teachers and students should change their roles. Teachers should actively encourage students to explore and innovate knowledge, actively discuss with students, and practice the taught knowledge points on project cases from the lecturer of knowledge to the instructor and discusser of students' learning; Students change from the recipients of knowledge to active participants in learning, and cultivate students' ability to analyze and solve problems, teamwork and communication.

4.1.3 course training

The training goal of computer professional colleges is still to improve practical ability. Although project-based teaching is mainly used in classroom teaching, practical projects are set around knowledge points, with the characteristics of single knowledge and easy for students to do. Therefore, curriculum practice is very important in the curriculum of computer professional colleges. Take Zhengzhou Railway Vocational and Technical College as an example, asp Net course training is arranged for two weeks. The traditional training method is that teachers choose training projects for students, do a good job of training guidance, and students start to do projects according to the guidance. In recent years, the school has changed the training mode and specially invited teachers from school enterprise cooperation units or professional training institutions to carry out practical training for students. Enterprise teachers have many years of project development experience. They introduce enterprise projects into the classroom and decompose project tasks through real development cases; At the same time, the enterprise operation mode is simulated in the training class. According to the students' mastery and interest, the students are divided into several groups, which are respectively responsible for database design, programming development and software testing. After the completion of the project cooperation, the project leader will reply, and the instructor will give the results after comments. Through the trial implementation in recent years, students' learning enthusiasm is higher, the effect of practical training is better, and their comprehensive abilities such as programming ability are significantly improved compared with traditional practical training.

4.2 actively use spare time to expand the second classroom for students' learning

After all, the time for classroom learning is limited. Students in computer colleges and universities must make full use of their spare time, encourage students to enter the library more, read and use electronic journals more, constantly improve their knowledge reserves, and create more opportunities for hands-on practice. Teachers should also take more measures, actively guide and create opportunities for students.

4.2.1 introducing the form of micro class to help students learn and understand the key and difficult points. Micro class is a new teaching form that makes targeted breakthroughs in the knowledge points in the course and provides students with learning and understanding. In order to better let students understand the key points and difficulties in the course, the teacher can show the difficult points to students in the form of micro class, help students check and fill the gaps, and consolidate knowledge, which is an important supplement to the traditional classroom.

4.2.2 do a good job in course assisted learning through the online teaching platform

At present, all colleges and universities have deployed online teaching platforms, which are an important supplement to traditional teaching. It breaks through the limitations of traditional teaching time and place, and provides students with curriculum teaching resources such as videos, lesson plans, courseware and functions. Course teachers should make full use of the advantages of the online teaching platform to publish course resources on the online teaching platform for students to learn and consolidate. At the same time, they can publish homework and examination questions on the online platform to communicate with students and answer questions. At present, computer professional colleges and universities are limited in teaching funds and scientific research strength. The commonly used online teaching platform is mainly

commercial purchase, and the blackboard teaching platform is the most used. It is a course centered integrated network "teaching" and "learning" environment. Teachers and students can discuss and communicate according to the needs of teaching and learning, providing teachers and students with a powerful online virtual environment for teaching and learning, Become a bridge between teachers and students.

4.2.3 carry out interest groups and participate in vocational skills competitions to improve students' practical ability. In order to further improve students' interest in learning, teachers divide students into several interest groups to build a platform for students to practice and show their ability. Starting from a simple project, combined with students' usual knowledge, they arrange practical content for students, and instructors regularly guide, inspect and comment on students. Through interest groups, students' practical ability and good autonomous learning ability can be cultivated; Cultivate students' enthusiasm for learning professional knowledge and skills, and mobilize students' enthusiasm for learning; And take this opportunity to cultivate some excellent students with comprehensive professional knowledge and strong practical ability to participate in the National Vocational College skill competition, so as to replace practice with competition, promote learning with competition, and improve students' programming ability. Through course training and carrying out interest groups, students' abilities in all aspects have been greatly improved. Teachers can select some students with outstanding abilities to form studios, contact enterprise projects, start with simple projects, and continue to improve. Students majoring in software technology at all grades continue to supplement, thus forming a long-term mechanism.

4.3 teaching interaction module this module includes three parts: online Q & A, teacher email, and problem discussion. With the rapid development of science and technology, traditional education and management have been greatly impacted. The ways, auxiliary means and tools of education are also changing with each passing day. It is very important to emphasize collaborative learning in online courses. Collaborative learning is mainly completed through the teaching question answering module. On the forum, students and teachers can speak, reply to the speech, or have a thematic discussion on the platform.

4.4. Resource library module this module includes three parts: example tutorial, friendship link and website announcement. Example tutorial is to sort, choose and classify excellent tutorials outside the classroom or classic cases and skills on the network, and put them on the network platform to provide students with an orderly, rich and reasonable learning resource base. At the same time, there are also many links to other excellent interface design, so students can save a lot of time to find information. Software UI design is a course that covers a wide range of areas and has strong operability. Only by learning and practicing more at ordinary times can we learn this course well. The excellent example tutorials provided in the website are also divided into easy, medium, difficult and difficult grades. Students can choose according to their actual situation, so as to truly achieve the purpose of layered teaching.

4.5 online examination and practice module this module mainly provides examinations and exercises. The online examination and practice module mainly provides students with online examinations and exercises. You can also browse the web with your mobile phone for examinations, which is convenient and fast. The objective question system automatically determines whether the test results can be displayed immediately or later. After the exam, the teacher can make a comprehensive analysis of the students' grades.

5. Analysis of Teaching Effect

The network classroom breaks the traditional classroom teaching mode, and also breaks the limitation that the traditional distance education cannot implement effective communication and exchange. The software UI design network course has been tried for a semester in three

classes of computer major level 15 and two classes of network level 15 in our school, which realizes the networking and multimedia of the teaching process and effectively cooperates with the classroom teaching. In terms of current use, it is applied to the classroom

Teaching has the following effects.

(1) The core teaching links in traditional teaching can be well implemented on the Internet, such as teaching, learning, homework, discussion, examination, evaluation, etc; Check the preview materials before class. For the content you don't understand in class, you can master the knowledge points learned by repeatedly checking the video. Knowledge points that you don't understand can also be discussed on the platform.

(2) Teachers and students communicate and communicate fully through the network, without requiring time and place restrictions. When students have doubts, they can send help requests on the platform at the first time to solve the difficulties encountered in the learning process in time. Make students feel like learning under the guidance of teachers, rather than learning from computers. Teachers can provide personalized help to students according to their main characteristics and development, teaching in different levels, and finally achieve the teaching goals. Network teaching is more humanized.

(3) Students can evaluate each other through the network platform, find their own shortcomings in the process of mutual evaluation, and also discuss the knowledge points on the network platform, express their views, complement their advantages, and finally achieve common development. To sum up, the construction of network courses suitable for computer majors is not only a need of teaching reform, but also a need to promote teachers' self-development and promote the overall improvement of students' quality.

6. Summary

ASP. Net is a main course of computer major, and the society has a great demand for students who master the knowledge of this course. Due to some problems in traditional teaching methods, there is a certain disconnect between students' web development ability and social needs. Our school applies the actual project to asp Net teaching process, through case teaching, group teaching, examination reform and other methods, students' practical ability, team cooperation ability and project development ability are improved. Teaching practice proves that ASP Based on project teaching Net curriculum reform has achieved the expected results and laid a good foundation for further reform in the future.

Acknowledgments

This study was funded by the Teaching and Research Fund Project of the Anhui University of Finance and Economics(acszjyzd2020002, Provincial Quality Engineering (online course - "c#.Net programming")).

References

- [1] Zhou Derong ASP. Net programming course teaching reform [J],Journal of Chifeng University (NATURAL SCIENCE EDITION), 2016, 32 (1).
- [2] Zhang Yuanyuan Teaching reform and practical research of asp.net programming course [J], Computer knowledge and technology, 2019, 10 (34).
- [3] Mo Hongwu Research and Practice on the curriculum reform of asp.net programming based on Project Teaching [J], Curriculum education research, 2019, 1.