

Research on the Application of Online and Offline Teaching Mode in the Course of "Computer Application Foundation"

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Abstract— Online and offline teaching mode is a hybrid teaching mode that combines offline traditional classroom teaching with online network teaching. Its scientific and reasonable application to the teaching of "Computer Application Foundation" can not only stimulate students' interest in computer knowledge, but also fully mobilize students' learning autonomy. This paper analyzes the application advantages of the online and offline hybrid teaching mode, and explores the implementation process of the online and offline hybrid teaching in the course of "Computer Application Foundation", so as to improve the teaching quality of the course of "Computer Application Foundation".

Keywords— Online and offline, Teaching mode, Autonomous learning, Computer Application Foundation.

I. INTRODUCTION

As a public course of computer and information technology education, "Computer Application Foundation" plays a very important role in cultivating students' information literacy and computer application ability. With the development and popularization of Internet technology, information technology, communication technology and mobile devices, especially the rise of MOOCs, blended teaching has been endowed with more abundant connotation, and how colleges and universities carry out blended teaching scientifically from their own actual situation has become a new topic of discussion. The reasonable application of online and offline mixed teaching in the teaching of "Computer Application Foundation" can stimulate students' enthusiasm in learning "Computer Application Foundation", cultivate students' independent learning ability, and improve the teaching effect [1].

II. MEANING OF ONLINE AND OFFLINE TEACHING MODE

Online and offline teaching mode refers to that teachers use information means including cloud computing, big data, mobile devices, etc. to build a network teaching platform based on mobile Internet technology, upload teaching videos, teaching task lists, courseware and other teaching resources to the network teaching platform, and set up evaluation and interaction modules. Students can use their spare time to complete the learning of these online materials, at the same time, they can interact with teachers; In the offline classroom, after collecting and sorting out the difficult problems fed back by students, teachers focus on teaching the difficult problems,

so that students can better master the teaching content. The online and offline teaching mode arranges learning tasks before class, takes problems as the driving force, and allows students to carry out autonomous learning with problems [2,3]. Online and offline teaching mode requires teachers to integrate classroom teaching and network teaching in curriculum setting, teaching design, knowledge transfer and question answering, so as to realize the organic combination of "offline" and "online" in the teaching process, so as to improve the teaching effect.

III. COURSE DESIGN

According to the current teaching situation of "Computer Application Foundation", the teaching mode of "Computer Application Foundation" is reformed, and the online and offline mixed teaching mode is explored and practiced.

This course integrates the online and offline teaching contents, combs out 56 knowledge points and records 58 micro course videos. The content of the whole course is both ladder and challenging, which meets the needs of innovative talent training. In order to achieve the teaching objectives of the course, the team practices the teaching concept of "student-centered", adopts the teaching mode of "MOOC + flipped classroom", divides the teaching process into three links before, during and after class, completes the knowledge point learning online before class, internalizes the knowledge in the way of "flipped classroom", pays attention to the cultivation of ability and quality, and expands learning after class, Complete the application and research of knowledge points [4].

In order to effectively supervise and scientifically manage teaching, teaching evaluation is designed from four aspects: formative evaluation for students, goal achievement evaluation for curriculum, student evaluation and supervision evaluation for teachers, so as to stimulate students' learning enthusiasm and promote the continuous improvement of teaching.

IV. TEACHING IMPLEMENTATION

In the process of teaching, we pay attention to the cultivation of computational thinking ability of learners. The content of the course is the comprehensive application of "Word, Excel and PowerPoint" in office software throughout

the whole course, which provides reference for solving daily office automation problems.

Teachers release the teaching task list offline, and students study by themselves and complete the test online. Teachers track and guide students' learning through the course platform and course group. By analyzing online learning data, teachers adjust classroom teaching strategies and complete class lesson preparation. In the class, teachers "take students as the main body", and stimulate students' interest and enthusiasm in learning through task-driven, group collaboration, role playing and inter-group PK. All students participate in the whole process, which effectively solves outstanding problems in traditional teaching. After class, students finish their homework and expand their learning. In order to meet the learning needs of students who are capable, the team carefully selects MOOC resources related to knowledge points to provide students with knowledge points to expand their horizons.

Team teaching started from 2019 students to explore and practice "online and offline hybrid" teaching, with a total of 4,399 students participating. In addition, in 2021, students from Soochow University, Yunnan University and Shanxi University of Finance and Economics will participate in this course through the "Wisdom Tree" course platform.

V. TEACHING EVALUATION

Process evaluation. The course platform monitors students' online learning process and automatically generates students' formative evaluation.

Objective evaluation. After the in-class test and the final exam, teachers evaluate the achievement of teaching objectives, analyze the evaluation results and formulate improvement measures.

Student evaluation. Teachers collect feedback on teaching effects by issuing questionnaires. Students' satisfaction with each index is above 90% in the questionnaire results of two semesters. In the online teaching evaluation organized by the Academic Affairs Office, all the teachers in the team scored more than 90 points in the last two semesters, ranking among the top 20% of the teachers in the whole school.

Supervision and evaluation. In recent years, the teaching team's teaching reform and practice oriented to "2 Features and 1 Degree" has been highly concerned and unanimously recognized by the school's supervision.

VI. FEATURES AND INNOVATIONS

Ideological and political elements are integrated into information technology classes, and moral education elements run through teaching: the teaching team insists on the unity of explicit education and implicit education, and integrates patriotism, Made in China and craftsman spirit into daily teaching activities.

Integrated construction of teaching objectives, content and resources to create "2 Features and 1 Degree": in accordance with the teaching philosophy of OBE (Outcomes-based Education), integrated teaching content and resources, combined with the needs of innovative talent training,

carefully built course resources, both ladder and challenge, easy to achieve teaching objectives.

The teacher is leader, the student is main body, the form is various, and the effect is obvious: the student becomes the main body of the teaching activity, its self-study ability, the practice ability and the professional accomplishment has been greatly improved, the reasonable teaching method and the tool use fully tapped the student own potential, cultivated the student innovation spirit.

VII. CONCLUSION

Online teaching mode will become the main trend of teaching reform. It can not only provide more flexible learning methods, help cultivate students' autonomous learning ability, but also facilitate the mining and utilization of teaching data. At the same time, it can realize the organic integration of traditional classroom and online classroom, improve teachers' teaching efficiency, but also through online teaching resources construction and promotion. It can also effectively promote teaching competition and enhance the social influence of curriculum and university.

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