

Research on the New Mode of MOOC and Flipping Classroom Teaching Method in Classroom Teaching of "Network Database"

Guogen Fan^{1, a}, Fang Meng^{2, b}

¹Guangzhou Huali Science and Technology Vocational College, Guangzhou 511325, China.

²Huali College Guangdong University of Technology, Guangzhou 511325, China.

^a29942978@qq.com, ^byuhu0422@163.com

Abstract. The teaching mode of "flipping classroom" course is adopted to reform the course of "Network Database", and according to the teaching knowledge point, the teaching PPT, teaching video, micro-course and other kinds of teaching resources are made. Enrich the MOOC online teaching resource library for the course of Network Database. According to the characteristics of running schools and students' personality of computer major, taking vocational ability as the core of curriculum, combining the mode of flipping classroom teaching, and according to the characteristics of the mixed teaching mode of flipping classroom, the course knowledge module of Network Database is established. Under the guidance of mixed teaching theory, based on the professional direction, adopting MOOC and flipping classroom as the basic teaching mode of "Network Database" course, the students can change from passive to active under the mode of flipping classroom course. To cultivate students' ability of innovation and independence, to improve the quality of personnel training and to promote teaching reform.

Keywords: MOOC; flipping classroom; Network Database course; teaching reform.

1. Introduction

With the continuous development of network information technology, in the post-MOOC era of rapid expansion of resource information, MOOC (large-scale online open course) shows a strong momentum of development. In the post-MOOC era, the application and sharing of teaching resources can be improved by adopting the mixed teaching mode. In the course of studying the course of "network database", it has the characteristics of highly interactive and resource-assisted teaching. This paper studies the teaching mode of "network database" course in the post-MOOC era. According to the characteristics of the course of "Network Database", the course knowledge module of "Network Database" is developed according to the characteristics of the teaching mode of "Network Database" by adopting the mixed teaching mode and flipping classroom teaching mode, and adopting the mixed teaching mode and the flipping classroom teaching mode [1]. Under the guidance of the mixed teaching theory, the optimization design of the classroom teaching mode of "network database" is carried out, and the hybrid teaching theory is taken as the guide, which is based on the professional direction and pays attention to the connection. As the basic teaching thought of "network database" course, in the post-MOOC era and combined with the mixed teaching mode, the project is adopted to reform the teaching of "network database" course by using the "flipping classroom" course teaching mode. According to the teaching knowledge point, we make the teaching PPT, teaching video, micro course and other kinds of teaching resources, enrich the MOOC online teaching resource database of the course of "network database", under the optimized teaching mode, innovate the teaching way, Improve the quality of teaching [2].

2. Analysis of the Concept and Development of Flipping Classroom and MOOC

2.1 Concept of Flipping Classroom and "MOOC"

With the development of the global network information technology, based on MOOC--, the teaching resource base and the open teaching course have gradually become an important way of classroom teaching and distance teaching. Each university has established the MOOC sharing platform by its own specialty characteristic and the discipline characteristic, the quantity and the kind of the MOOC teaching resources are more and more abundant, MOOC has effectively satisfied the teaching resources sharing and the resources on-line scheduling characteristic. It is especially suitable for courses with strong specialty in network database. In the course of classroom teaching, the teaching mode is optimized on the basis of MOOC platform. Using the teaching platform such as SPOC (small private online courses, (small scale restricted online course) to carry on the classroom teaching of "network database" [3], combining the new teaching mode, such as microcourse and developing classroom, etc. In the post-MOOC era, new innovative teaching modes such as SPOC, flipping class and micro-course are adopted to reform the teaching of the core curriculum and to train the talents of information technology, so as to improve the interaction of classroom teaching in the course of "Network Database", so as to improve the interaction of classroom teaching in the course of network database. The potential of MOOC is brought into full play, the traditional teaching structure is changed, the course teaching of "network database" and multimedia teaching are realized by flipping classroom teaching, and the course design and development are combined in the course teaching of "network database". To carry out, evaluate and improve the students' enthusiasm and initiative in the teaching of the course of "Network Database" [4].

Flipped class is translated from "Flipped Classroom" or "Inverted Classroom". In the mode of flipping classroom teaching, students change from passive learning to active learning. As a new type of classroom teaching mode, flipping classroom is a way of exchanging roles between teachers and students. The teaching method of "network database" course adopts the method of flipping classroom teaching, and carrying on diathesis teaching by means of role exchange. In order to improve the effectiveness of students' study, we should integrate the existing flipping classroom design mode to develop and design the "network database" course flipping classroom, optimize the teaching of "network database" course, and improve the effectiveness of students' learning. To enhance the students' initiative in the course of "Network Database".

2.2 Problems and Thoughts on the Course Teaching of Network Database

At present, the reverse classroom and MOOC teaching mode are still in the initial stage in the post-MOOC era, and the correlation between teaching methods and teaching is still in the process of groping. According to the characteristics of network database course teaching, this paper analyzes the problems existing in the reverse classroom teaching in the post-MOOC era [5]. Under the environment of MOOC, the course system is optimized, the course resources are integrated and the teaching effectiveness is improved. Turning over class, the problems existing in the course design and implementation of MOOC in the course of "Network Database" are mainly reflected in the following aspects:

First, the traditional teaching mode has a deep influence on teachers' teaching and lacks the enthusiasm of teaching model reform. In the teaching practice of "Network Database" course, teachers are more willing to use the traditional teaching mode and are not willing to accept new things, which is an important problem in carrying out the teaching reform in the course of "Network Database". Since students and teachers can obtain free and high-quality teaching video and multimedia information resources under the flipping classroom or MOOC teaching mode, in the post-MOOC era, through the sharing of information resources, the flipping classroom teaching mode is adopted. It can improve students' ability to understand and accept the course of "Network Database". China has also started to set up the MOOC alliance of colleges and universities. In the post-MOOC era, the evaluation of resource information has been maturing. The quality of teaching

information resources is recognized by teachers and students. Therefore, we can make full use of MOOC teaching resources, reform the traditional teaching mode of "Network Database" course, change the traditional teaching methods and improve teaching efficiency [6].

Second, in the post-MOOC era, there are some hardware limitations for the full implementation of flipped classroom teaching. At present, the social economy and teaching development in our country have made a certain degree of development, but there is still a certain gap in the teaching facilities and equipment in developed countries. In the post-MOOC era, although the integration of teaching resources and information sharing have achieved certain results, However, there is still a certain gap in the input of various schools into the hardware supporting facilities for teaching. Under the current economic development and educational situation in China, it is not realistic to fully implement flipping classroom teaching. There is also a lack of resources and hardware constraints.

Third, in the post-MOOC era, the platform of network database is not perfect enough. In the post-MOOC era, the integration of mainstream curriculum resources is constantly improved, but because the course teaching of "network database" is still in its infancy, it is not mature enough to build the platform of "network database" curriculum resources, so it needs to be designed in the mixed teaching mode. The MOOC resource teaching platform of the course resources of network database is built. According to the individualized demand of the students, the students' innovation ability and independent ability are cultivated through the building of the teaching resources platform. To improve the teaching quality of the course resources of Network Database [7].

3. The Importance and Main Thought of Flipping Classroom Teaching in the Course Teaching Reform of "Network Database"

The flipping classroom has higher application value in the teaching of "network database". By flipping the "network database" classroom teaching, the flipping classroom teaching can change from the quantity mode to the quality mode. In the process of teaching, the form of video is adopted to optimize the classroom teaching of Web Database. Based on the teaching practice of Network Database, the innovation of classroom is studied.

3.1 Under the Guidance of Mixed Teaching Theory, the Teaching Mode Should be Optimized

In the post-MOOC era, under the guidance of mixed teaching theory, the new teaching mode of flipping classroom and MOOC is introduced in the classroom teaching practice of "network database", combining with the characteristics of "network database" classroom teaching. Construct a whole set of complete mechanism guarantee, establish a new teaching mode which accords with the teaching characteristics of "Network Database" course, under the situation of flipping classroom teaching, adopt 1/3 group mutual aid, 1/3 teacher explain; A third of the classroom-arrangement case pattern is designed for "network database" class teaching. In the course teaching of "network database", the case teaching is student-oriented and software programming is added. We should change the traditional infusion teaching into active teaching, actively reform the teaching mode under the flipping classroom, and activate the students' learning initiative. According to the degree of the students' mastery of the course of "network database", the course assignment of "network database" is arranged in groups and stages. The MOOC multimedia courseware is recorded in the course of teaching, which further enriches the MOOC teaching resource database and centralizes the teaching cases and teaching resources. In this efficient mode of "flipping over classroom", we can promote the improvement of classroom teaching of "network database".

3.2 On the Basis of MOOC Teaching Resources, Carry out the Optimization of Flipping Classroom Teaching Mode

In the post-MOOC era, based on the teaching resources of MOOC, the flipping classroom teaching mode is promoted in the classroom teaching of "network database", and the teaching reform is deepened by combining the new teaching mode such as micro-course teaching, which adopts the

form of flipping classroom and MOOC teaching. In the course of course setup, teacher allocation and classroom teaching, we should take the mixed teaching theory as the guidance, base on the professional direction, pay attention to the connection, and introduce the project as the basic teaching thought of the course "Network Database". Combined with the flipping classroom teaching mode, the reform of network database classroom teaching mode is carried out, and the teaching design mode is optimized. To give full play to their own initiative in the process of learning, let students fully experience how to use the knowledge they have learned to solve practical problems in different situations, and in the course of flipping the course of "Network Database" in the classroom, the distributed scheduling of MOOC teaching resources is carried out by means of multimedia software. Combined with the teaching mode of micro-classroom, the characteristics of "network database" classroom teaching are analyzed, and the combination of practical teaching and innovative practical ability teaching is adopted. Improve the pertinence and practicality of teaching under the flipping class [8].

4. Reform Mandate and Key Reform Initiatives

On the basis of the above standard, scientific analysis of the flipping classroom teaching mode in the post-MOOC era and the analysis of the present situation of "network database" classroom teaching, combined with the characteristics of "network database" classroom teaching, under the distributed environment of MOOC resources, Building the information management platform of classroom teaching resources, combining the multimedia courseware development of network database, optimizing the development and design of the course teaching mode, combining the flipping classroom teaching method, proceeding from the efficiency and the actual effect. The network database resource platform centered on 2+2 online and offline teaching / learning modules" is completed. In order to improve the effectiveness of the course reform of network database, the classroom teaching reform should be carried out according to the demand of the society for talents.

4.1 Further Develop the MOOC Teaching of Network Database and Optimize the Construction of Teaching Platform

Aiming at the defects of the traditional teaching method of the course "Network Database", the course teaching reform of "Network Database" is carried out on the basis of flipping classroom and MOOC resource platform, taking the ability teaching and innovative training as the core. The innovative resource platform is built in the mixed teaching reform. Constructing 2+2 online and offline teaching / learning dual modules", that is, teachers' online teaching modules and students' online learning modules, according to the syllabus, objectives, nature and design of the course. The design of teaching module on line and the platform of "network database" curriculum resource are carried out. Taking 2+2 online and offline teaching/learning dual modules" as the center, the integrated "network database" course teaching resource information management platform is established. The course data management database of network database is built, the data storage and scheduling of network database are optimized by cloud storage structure, and the case base and database are built. The real-time management and information adaptive scheduling of course resources are realized in the database.

4.2 Change the Traditional Teaching Concept and Carry out the Practical Teaching of Network Database Course with the Cultivation of Innovative Ability

The curriculum group carefully cuts the teaching contents and formulates detailed teaching tasks according to the syllabus. It is necessary to organize the whole course into several modules according to the knowledge structure, and each module is divided into several small knowledge points. The direction of the main knowledge modules in the course of Network Database and the small knowledge points subdivided by the big knowledge modules are worked out. In the construction of teaching information resource platform, it is necessary to make teaching PPT, teaching video, micro-course and other teaching resources, build the case base and database required for the course,

and record the correct use of software operating tools in detail. Record the use of shortcut key, record the case steps, improve the teaching practice and innovation ability.

4.3 Develop New Teaching Mode and Improve the Teaching Quality of Network Database Course.

The online operation course of "network database" established in the network teaching platform, according to the time arrangement provided by the teacher, the teaching video, the teaching PPT, micro-lesson and other teaching resources, etc. Complete the five modules of the network database operation knowledge learning and understanding. On the basis of understanding the content of the course, gradually complete the software operation skills, complete the corresponding exercises or assignments. In the whole learning or practice process, students should form the habit of following learning, and record the correct use of software operation tools in detail. To deepen the memory of the knowledge system that students learn in online courses, to form a systematic operational knowledge structure, to implement an effective incentive mechanism in the practice of classroom teaching reform, and to arouse students' enthusiasm for self-conscious learning. To ensure the implementation of the teaching reform.

5. Conclusion

In the post-MOOC era, the "flip classroom" course teaching mode is adopted to study the course reform of "network database", to analyze the course reform of "network database", and to analyze the technical principle of the micro-course of the course, under the mode of flipping classroom teaching. Carefully cutting the contents of "network database" classroom teaching, drawing up detailed teaching tasks according to the syllabus, combining with flipping classroom teaching methods, proceeding from efficiency and effectiveness, the network database resource platform centered on "2+2 online and offline teaching/learning modules" is completed. In order to carry forward the teaching reform smoothly, establish supporting measures, strengthen propaganda, create a good atmosphere of teaching reform, make the teachers and students participating in the experiment of teaching reform understand and accept the new teaching mode, strengthen the training of teachers and students. On the basis of organizing teachers to combine the characteristics of courses to improve their teaching ability, the new ideas and methods of education should be put into practice with practical actions, so as to promote the cultivation of teachers with innovative talents and improve the quality of classroom teaching.

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