

Research on Wisdom Teaching and Practice of Diversified Communication and Cross-school Study in New Engineering Universities

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ABSTRACT

This paper takes the diversified communication of cross-school courses as the research object, In view of the problems existing in the implementation of curriculum wisdom teaching, If teaching characteristics, innovation, practicality and compatibility are not strong, The teaching mode is not interactive enough, The assessment method is uncontrollable, Lack of evaluation and dynamic teaching management mechanism, The teaching and practical research of cross-school courses such as teaching team, teaching content, teaching mode, assessment method and teaching management have been carried out respectively. Put forward the combination of innovation, practicality and compatibility of teaching content, Using the online and offline teaching mode of flipping classroom, network platform and classroom teaching, adopting the assessment mode of comprehensiveness, controllability and authenticity, and the innovative operation mechanism of teaching management that can be supervised, evaluated and renewed, the aim is to promote the co-construction and sharing of high-quality curriculum teaching resources in colleges and universities and improve the quality of personnel training.

Key words: *Cross-school study, Diversified communication, Wisdom teaching, Practical research*

1. INTRODUCTION

Taking credit courses across schools is a new teaching mode in colleges and universities based on the educational concept of "Internet plus". This model can relieve the pressure of shortage of teachers in colleges and universities and reduce the cost of running schools. With the help of the national and provincial excellent resource sharing courses and other teaching platforms, college students can choose excellent courses from other universities to study according to the agreements between universities, and the credits obtained can be included in the intelligent teaching mode of students' academic achievements. Because the cross-school courses are all national or provincial excellent resource sharing courses, this teaching mode can realize the sharing of high-quality teaching resources, promote education equity, and improve students' autonomous learning ability, migration and creativity ability and ability to solve practical problems.

The educational modernization of China's program advocates and practices wisdom education, and the implementation of wisdom education gives birth to a new mode of wisdom teaching and a new way of wisdom

learning. Smart teaching mode is a solution and process in which teachers create learning environment and space, deeply integrate and innovatively apply teaching resources and teaching technology, reconstruct classroom teaching organization and ecology, and provide accurate guidance for students to carry out experiential learning, blended learning and personalized learning. This model is an integrated system of teaching activity framework, process and strategy based on the principle of wisdom education, deep integration and innovative application of information technology to empower efficient learning. Combining several important intelligent classroom solutions and intelligent teaching practices launched by K12 Education, combined with the intelligent teaching experiment in the intelligent education demonstration area, and based on the "learning-oriented" teaching design model and process, the intelligent teaching mode of personalized teaching, mixed teaching and situational teaching is constructed.

2. PROBLEMS IN WISDOM TEACHING IN CROSS-SCHOOL STUDY

2.1 The teaching content is not innovative, practical and compatible

At present, the cross-school courses are basically national excellent resource courses, but the content of the courses has not jumped out of the traditional teaching mode, the tangible teaching content has not highlighted its characteristics and novelty, and the intangible innovative teaching ideas and teaching ideas cannot be reflected; Diversified communication courses mainly teach communication skills in the workplace, which is practical, but the online practical teaching content is less, focusing on theoretical teaching; The teaching content does not design courses for different majors, which leads to the unclear scale of knowledge mastery and insufficient individualized learning for students of different majors.

2.2 The teaching mode is not interactive and communicative enough

The existing cross-school courses lack synchronous or asynchronous communication between students, teachers and students, and can not adapt to autonomous learning and collaborative learning; Research on innovative interactive teaching modes such as exploratory learning and thematic learning can not provide learners with diversified interactive ways; Teaching methods and means lack innovation, and do not fully tap the platform advantages and technological advantages of the Internet.

2.3 The assessment method is uncontrollable and out of sync with intelligent learning

At present, the cross-school credits are assessed by combining online and offline, with unit tests and homework online and final exams and usual scores offline. The assessment items of this assessment model are too simple, and students' theoretical knowledge, practical ability, learning input and self-management can not be comprehensively assessed.

2.4 The evaluation and dynamic teaching management mechanism is not perfect

The evaluation of cross-school courses does not adopt an effective and scientific way to collect feedback from learners, online teaching is basically in an unmonitored state, students' learning process can only be completed by self-management, and teachers have not formed a dynamic evaluation system and standard, which cannot evaluate teaching quality; Teaching content and teaching resources can not be updated in time.

3. REFORM AND PRACTICE OF WISDOM TEACHING IN CROSS-SCHOOL STUDY

3.1 Teaching team

Formulate teacher standards for professional teaching teams, set up a group of teachers with advanced teaching concepts and rich teaching experience, and formulate teaching team management system and reward and punishment mechanism to ensure the teaching quality of cross-school courses.

3.2 Teaching content

Innovative and characteristic teaching content construction, reconstructing teaching content framework system and knowledge points, condensing the essence of course content, and fragmenting knowledge. The choice of pictures, videos and cases should be added to the teaching content, so as to strengthen the times and innovation

of teaching content compilation, enhance the attraction of the course, and embody the characteristics and innovation of the course. The construction of teaching content combining practicality, aiming at the problem of less practical teaching content at present, sets up a flip classroom mode, adopts operable cases, simulates practical links of drills, and sets up real-time classrooms to improve the operability of practical teaching and the practical ability of students' multi-communication.

3.3 Teaching form

By using flip classroom, network platform and classroom teaching, knowledge points are divided into theoretical type, understanding type and application type through online and offline teaching mode. According to different types of knowledge points, different teaching modes are designed, and diversified interactive ways based on texts, videos and pictures between teachers and students, and diversified interactive channels such as inquiry, discussion and question solving are designed to increase interactivity.

3.4 Assessment Methods

In terms of assessment methods, diversified assessment systems such as flipped classroom assessment, online platform learning assessment, classroom performance assessment, practical achievement assessment and final examination assessment are constructed to reflect the comprehensiveness of examination contents. At the same time, online real-time examination rooms are set up to strengthen the authenticity and supervision of examinations and realize the examination method of "whole process monitoring assessment".

3.5 Teaching management

Teachers' teaching quality management mechanism, formulate diversified teaching quality evaluation standards for cross-school courses, and formulate dynamic monitoring indicators and management mechanisms. The management mechanism of students' teaching quality, aiming at the problems of plagiarism of students' homework, lack of motivation in online learning, lack of consciousness and enthusiasm, adopts the methods of constructing question bank for students to randomly select questions, and setting up anti-drag and switching functions of play online such as course video on the network platform to avoid them.

4. INTELLIGENT TEACHING MODE BASED ON CROSS-SCHOOL STUDY PLATFORM

4.1 Individualized teaching

Personalized teaching is a smart classroom environment, Teachers according to individual chemical situation analysis, According to the individual learning characteristics such as learning motivation, interest, style and habit, the staged learning objectives and unit learning tasks are accurately formulated, and the classroom learning tasks are reasonably matched and innovatively integrated with learning resources, teaching technology, learning organization and learning methods, so as to realize the intelligent teaching mode of personalized guidance and differentiated development for students.

First, personalized analysis of academic situation. Grouping based on ability stratification is a simple classification of learners according to classroom problem solving and big data of learning results, On this basis, teachers can extract typical cases from learning big data for in-depth analysis, so as to determine the objects of classroom learning to give key guidance and help in task presentation, questioning and interaction, resource and technology provision, learning methods and so on.

The second is to determine goals and tasks. Based on the stage goal and unit goal, the class hour goal is decomposed and determined, and the class hour goal is further concretized into a learning task list. When making a learning task list, according to the different levels of learners represented by the learning objects with emphasis on guidance and help, there should be a clear distinction in the expression of the difficulty of tasks, such as reducing or increasing the number of tasks completed.

Third, resource introduction + intelligent auxiliary system introduction. According to the matching of learning

content and learning progress, learning resources and intelligent auxiliary system are introduced. Generally speaking, when students learn knowledge, online learning resources should be provided, and when students apply knowledge to solve problems, intelligent auxiliary systems should be introduced according to needs.

Fourth, individualized learning diagnosis + differentiated precise guidance. According to different learning tasks, we should design and organize learning activities and learning methods. In the activity design, we should reserve time for interaction with key objects, question and answer and give learning guidance, predict possible problems in learning in advance, and provide ideas and solutions to problems.

Fifth, big data analysis + progress evaluation + improvement strategy. Based on the big data of learning process, the evaluation of learning progress is more objective and accurate. In personalized learning progress assessment, it is necessary to judge the results and draw conclusions based on the norm of achievement distribution, but the emotional learning data recording individual learning interests, attitudes, emotions, habits, etc. implies more important information pointing to future learning improvement strategies.

4.2 Situational teaching

Situational teaching is a smart classroom environment, According to the requirements of learning objectives and tasks, teachers adopt the intelligent teaching mode of project-based learning, project-based learning, designing situational topics, creating and creating real situations, and guiding students to carry out inquiry and experiential learning in group cooperation, so as to stimulate and cultivate learners' creative thinking, cooperative learning ability and problem-solving ability.

Situational instructional design should grasp six key links:

The first is to design situational topics. Situational topics are generally determined according to the learning objectives of stages or units. The key factors of situational topic design are: containing real problems and expressing them contextually, being procedural knowledge or principles, and being a problem-solving process of scientific inquiry.

The second is to create real situations and environments. Problem solving of scientific inquiry, It is necessary to restore the conditions, scenes and environment of problem generation. Teachers ask questions by describing the process of problem generation, stimulate students' motivation, interest and curiosity of independent discovery and cooperative inquiry by creating problem scenes, and guide students to enter the immersive learning state of continuous inquiry experience by creating a real environment.

Third, ability grouping + task matching. The group division of labor in situational teaching is mainly based on the needs of subject research. Teachers can design group members' role orientation, thinking characteristics, learning style, ability level and undertaking tasks from the perspective of subject research plan and based on learning big data.

Fourth, the learning and introduction of intelligent auxiliary system. Situational teaching is a "learning-centered" teaching. With the deepening of research, students' problems and doubts will become more and more, so it is necessary to introduce intelligent auxiliary system in real time. The reasonable introduction of intelligent study partner, robot teacher, intelligent search and intelligent question answering system can make group cooperative learning full of fun and share and reduce the workload of teachers' answering questions and guidance.

Fifth, problem diagnosis + experiential learning guidance. Experiential learning leads students into the learning situation of independent inquiry and free exploration, and a large number of problems arising in the process of group cooperation will make teachers tired of coping. Therefore, teachers should presuppose the main problems and doubts that may appear in advance according to the research topics, so as to accurately diagnose and determine the problems in class, and give accurate answers and guidance.

Sixth, process data analysis + progress evaluation + improvement strategy. Research-based learning and experiential learning will completely record and generate a large learning database. Teachers should consult the

database in real time, analyze and judge these big learning data, master the implementation of the research plan, learning status, learning achievements and learning progress, find out the existing problems in learning, and put forward improvement strategies and suggestions.

4.3 Blended teaching

Blended teaching is a smart classroom environment, in which teachers accurately design learning objectives and task lists based on online curriculum resource platform, students independently control learning time and progress, complete online learning tasks and ask difficult questions, and offline learning is mainly completed through answering questions, group cooperation and expanding learning. The essence of mixed teaching is the online and offline combination of learning objectives, curriculum resources, teaching technology, learning methods and evaluation methods, and it is an intelligent teaching mode created under the environment of "Mobile Internet plus".

Six key links should be grasped in mixed instructional design:

First, target import. Clear online learning objectives and tasks, and accurately design learning task list. Learning task list is the task-based embodiment of curriculum objectives, and the release of task list is the initiation of online learning. The design framework of the learning task list follows the cognitive map of the online course, and the task list clearly puts forward the learning objectives and requirements of the unit or topic. Learning task list should be composed of teaching objectives and tasks, key and difficult points, online exercise detection and offline homework.

Second, online learning. Students' online learning is task-driven and initiated independently. Online learning is a kind of ubiquitous learning in a narrow sense. According to the needs of personalized learning, students initiate and maintain independently, watch repeatedly, watch fast forward, and finish learning at any time. Online learning mainly includes video learning, courseware learning and online exercise detection learning methods and time matching design.

Third, online interaction. This mainly includes teacher-student dialogue, peer mutual assistance and activity guidance design of submitting questions. Using the teaching management system, interactive section and WeChat group of online course platform, online teacher-student dialogue is carried out to encourage students to discover and ask questions independently, and focus on strengthening the activity design of how students find and ask questions in teacher-student dialogue. Summarize and sort out online learning questions, form a list of unit or topic questions, and team teachers conduct in-depth discussions, accurately design and propose problem solutions.

The fourth is to flip the classroom. This is mainly composed of three parts: answering questions, cooperative learning and independent inquiry. In the flip class aimed at answering questions, all activities must be accurately matched with time, so as to ensure the efficient and orderly answering questions in class.

Fifth, deep learning. Deep learning means that after online and offline learning tasks are completed, Students at both ends (i.e., excellent students and underachievers) are inspired by teachers' answering questions and classmates' questions in classroom answering and discussion interaction, which leads to more difficult problem-solving learning beyond the learning objectives of this unit (or theme), which is an extended learning and advanced learning driven by difficult problems. The instructional design of deep learning should be carried out from three activities: teacher-student interaction, individual counseling and extended learning.

Sixth, summarize and improve. After the learning task of a unit (or topic) is completed, learning analysis, summary and evaluation based on big data of learning process such as video viewing, courseware browsing, questioning, interaction, online learning notes, exercise test, etc., combined with offline homework, is the key link of mixed teaching. The design of summarizing and improving links consists of three parts: analyzing and learning big data and offline homework, summarizing learning gains and suggestions for improvement

strategies. This link is not only the end of a complete mixed instructional design, but also the precondition of the next mixed instructional design, which plays a connecting role.

5. CONCLUSION

This study aims at the common problems in cross-school courses in domestic colleges and universities-the lack of compatibility, innovation and practicality in teaching content, The assessment method lacks comprehensiveness, controllability and authenticity, the teaching mode is not interactive and communicative, and the curriculum teaching management mechanism is not perfect. Taking diversified communication courses as an example, a new mechanism and teaching mode for the operation of intelligent teaching in cross-school study are established. Through the research and practice of the intelligent teaching mode of cross-school study, Improving students' enthusiasm, initiative and interest in learning is conducive to cultivating students' ability to comprehensively use various knowledge and skills, cultivating students' independent thinking and innovative spirit, and cultivating team cooperation spirit, thus promoting the co-construction and sharing of high-quality curriculum teaching resources in colleges and universities and improving the quality of personnel training.

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