Study on the Mixed Teaching Model of College Teaching Under the Background of Educational Informationization

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Abstract
Information technology provides a new medium and means for the development of education, and promotes the new transformation of educational ideas and methods. The two constantly merge in the process of running-in, forming a new educational situation. The mixed teaching model of traditional classroom teaching and online autonomous learning has become the mainstream teaching model at present. However, the development of new things must go through a process of gradual improvement in continuous adaptation. The purpose of this paper is to explore the optimal path of constructing the mixed teaching model under the background of information technology, and to create the best environment for students' individualized learning.

Key words: Educational informatization; College teaching; Mixed teaching model

The development of information technology has promoted the arrival of the "Internet+" era, and the education has also entered the era of great change. Among them, the mixed teaching model is popular in teaching with its unique advantages, forming the transition from the traditional teaching model with teachers as the main body to the mixed model with students as the main body, and the teaching and teaching model realize the transformation from single to diversified, and realize the maximization and optimization of students' individualized learning. In college teaching, with the help of the Internet, students can obtain the required resources from the massive learning resources to meet the needs of individualized learning, and the role of teachers has changed from the learning controller to the learning instructor and helper, and the teaching model has changed accordingly, forming a mixed teaching model. However, how to make full use of information technology and network resources in practice and construct a teaching model suitable for students' individualized learning has become the most concerned problem for teachers.

1. SIGNIFICANCE AND FEASIBILITY OF CONSTRUCTING MIXED TEACHING MODEL

1.1 The Significance of Constructing Mixed Teaching Model
With the development of information technology, "the Internet+" has gradually been integrated into every link of education. The improvement of digital teaching conditions and the popularization of smart phones and computers make students' ways to learn more and more diverse. Therefore, under the background of educational informatization, it is inevitable to carry out the reform of college teaching with the times and to construct the mixed teaching model of college, which is not only the requirement of cultivating social talents, but also the inherent law of educational development. Adopting the mixed teaching model can not only make full use of modern hardware and software resources, provide

students with massive treasure trove of knowledge learning, but also realize students' individualized learning and achieve the purpose of truly "teaching according to their aptitude ". Mixed teaching realizes the combination of traditional classroom teaching advantage and network learning advantage, which not only plays the leading role of teachers, but also embodies students' initiative and creativity as the main body of learning.

Apart from local higher vocational colleges, more and more college students come from different provinces, so the students' learning background, foundation and comprehensive quality are very different even they are classmates or students of the same major, but the unified teaching model is more difficult to adapt to the uneven level of students while the mixed teaching model just meets the students' personality differences, thus enhancing students' learning confidence, interest and effect. In the university campus in the information age, students can easily obtain the required information and resources. Teachers and students have almost the same access to knowledge. The gap between the two is more and more manifested in the relationship between prophets and hindsight. The so-called "cup bucket relationship" between teachers and students has quietly changed, and teachers have lost their absolute position in the traditional teaching model. At the same time, students have a stronger sense and ability to accept new ideas and new technology, which may be better than teachers in the acquisition of resources and the use of skills. Therefore, when constructing the mixed university model, teachers should first pay attention to the cultivation of students' learning ability in the information environment, especially the cultivation of individualized learning ability, that is, to cultivate students' self-discipline and management ability in autonomous learning, and to improve the ability of cooperation and communication in the process of cooperative learning. For teachers, in curriculum design, we should have the ability to reconstruct and innovate knowledge, organize new classes, and guide students to acquire online resources independently.

1.2 Feasibility of Constructing Mixed Teaching Model

With the popularity of "Internet" and smart phones in China, people's access to information is becoming more and more extensive and faster. Contemporary college students, growing up with the internet and mobile phones, get information on the Internet as well as fish foraging in the water, so the use of the internet and mobile phones is one of their instincts. Although most college teachers are less sensitive to the internet and mobile phones than college students, they are the first users of the network and mobile phones, so the use of network and mobile phone software is also familiar and handy. Therefore, with the help of MOOC, micro-class and various learning platforms, teachers' teaching forms and students' learning

styles have changed. The teaching process has changed from one-way to multi-direction, the teaching method changed from single to multiple, and the classroom teaching changed from knowledge teaching to teacher-student interaction, classroom answering questions, discussion and other forms. The place, way and content of students' online learning have also changed. In the past, students studied mainly in the classroom with books, tutoring materials as the main learning materials. Now, students can not only use mobile phones or laptops anytime and anywhere to obtain massive learning resources, but also search for answers or solutions online when they encounter difficult problems. You can also solve problems with teachers, students through QQ or network platforms such as WeChat and learning software. In a word, the good learning environment after class makes the learning and communication between teachers and students and among students can span time and space to realize the effective combination of online and offline. Students can choose appropriate learning styles and methods according to their own individual differences, realize individualized learning，and thus improve the efficiency and purpose of learning. Under the background of information technology, the practical function of college is still the main goal of teaching, focusing on the cultivation of five skills: listening, speaking, reading, writing and translation. Therefore, the mixed teaching model is still based on these five aspects. However, the mixed teaching model has undergone fundamental changes in concept, design, resources, methods, evaluation and so on so as to improve both learning ability and comprehensive accomplishment.

2. CHARACTERISTICS AND PRESENT SITUATION OF MIXED TEACHING MODEL

2.1 Characteristics of Mixed Teaching Model

The mixed teaching model is the fusion of traditional teaching model and network teaching model, which combines the advantages of traditional classroom learning with the advantages of network learning, and realizes the full use of educational resources. The mixed teaching model gives full play to the leading role of teachers' guidance, inspiration and management in the process of students' learning, fully highlights the students' autonomy and creativity as the main body of learning in the process of learning, and achieves the ideal teaching effect through complementary advantages. The mixed teaching model can further deepen the students' participation in the learning process, help students to improve their teamwork ability, and enhance their inquiry ability and innovation ability in the process of seeking knowledge. The mixed teaching model breaks the monotonous solidification

form in traditional classroom teaching model, in which the teacher and the student can carry on the equal communication and the mutual exchange online, trains the equal interpersonal relationship among teacher-student and student-student with knowledge-seeking and truth-seeking as the link.

The most remarkable characteristic of the mixed teaching model is that it gets rid of the geographical restriction of the entity university, synthesizes the advantages of the network teaching and the classroom teaching, so that the students' main position can be brought into full play and the teaching quality can be greatly improved through the integration, sharing and optimization of the high quality educational resources. But this teaching model can not replace the main position of the traditional teaching model, as the advantages of traditional teaching can not be replaced by online teaching, and online teaching is only a supplement to traditional teaching, so the combination of the two can achieve complementary advantages, stimulate students' learning potential, enthusiasm and initiative, and fully realize students' individualized learning.

2.2 The Present Situation of Mixed Teaching Model

China's education situation is complex, as even every province or city has their own different conditions of education, and its teachers, information resources and teaching equipment are also very different, which makes the teaching level across the country uneven. The mixed teaching model under the background of informationization can maximize the cross-temporal sharing of educational resources and make up for the deficiency caused by objective conditions to a certain extent.

Although the advantages of the mixed teaching model have reached a consensus, but it is in the primary stage of development after all, and lack of mature theory and experience, so to fully realize the potential of the mixed teaching model, the cooperation and support of the government, society, schools and other forces are extremely needed. At present, under the influence of the new coronavirus outbreak, online teaching has opened an unprecedented peak era. During the epidemic period, education departments at all levels really realized the significance and positive role of information-based teaching, therefore, they actively encourage and scientifically guide the application and development of the mixed teaching model, so the new era of mixed teaching model is coming rapidly.

With the encouragement and support of the education department, schools at all levels have given full play to their initiative. While strengthening and perfecting the construction of campus network, they have actively advocated and organized teachers to learn and utilize various information platforms and resources, so as to create a high-quality network environment and conditions for online teaching and ensure the smooth development of teaching activities. Under the dual drive of active and passive, teachers are familiar with the skills to use information resources for teaching in the shortest time, which quickly improves their own information quality and ensures the teaching quality during the epidemic period. The accumulated experience has laid a solid foundation for the development of mixed teaching after re-schooling.

3. CONSTRUCTION OF MIXED TEACHING MODEL UNDER THE BACKGROUND OF INFORMATIZATION

3.1 Enhancing the Ability of Teachers to Apply Information

The quality of teachers is the key factor to implement the mixed teaching model. People properly compare teaching activities to stage performances, in which the teacher is the designer and director of the stage, and the student is the actor. The effect of the performance depends not only on the actor's acting skill, but also on the director's level, even saying the actor's acting is guided by the director. This metaphor vividly illustrates the role and importance of teachers in teaching. Therefore, in the information age, it is of great significance to strengthen teachers' educational information literacy.

First of all, we should strengthen theoretical training to improve teachers' theoretical literacy in three aspects: educational concept, teaching method and professional accomplishment. According to the actual situation, schools improve teachers' theoretical level through special lectures, outside training, inter-college or inter-university exchange of visits and other forms. Through learning, teachers can change their teaching ideas, recognize the significance of the times in the context of information technology, adopt the mixed teaching model, and change the role in the teaching process in time, that is, from the leader of the classroom to the organizer of the learning activities and the builder of the resource bank. Moreover, teachers should realize that the learning process is not only a process of learning knowledge, but also a process of self-management, independent innovation, communication and cooperation. In this process, students acquire knowledge, acquire methods, strengthen cooperation, and cultivate personality.

Second, enhancing the ability to use information technology. Under the background of informationization, teachers are not only curriculum professionals, but also skilled in the use of information technology, select appropriate network platform and APP software to carry out online and offline teaching activities and evaluation. Next, in the face of unified teaching materials, teachers should have the ability to re-develop, re-design and

re-arrange the contents of the curriculum; in the face of students at different levels, teachers must "teach according to their aptitude ", use information technology to transform the teaching materials according to the curriculum and students' learning level, make targeted micro-lessons and courseware in order to meet the needs of students' autonomous learning, and improve the effectiveness of mixed teaching. What's more, in the face of massive network information and resources, if students themselves search in the vast sea, it is bound to waste too much time, and it is difficult for students to identify the most suitable resources as they themselves have limited discrimination, which requires teachers to build appropriate resource banks and information sources targeted for students to choose independently.

3.2 Constructing the Mixed Teaching Model Under the Background of Informatization

Integrating all kinds of learning resources online and offline, combining online autonomous learning with classroom teaching, and then constructing mixed teaching model under the background of informationization are the best model of teaching reform today.

3.2.1 Design of Mixed Teaching Pattern

The premise of effective implementation of mixed teaching is to do a good job of teaching design and provide rich and diversified teaching resources. The mixed teaching model consists of two parts: online and offline, and the design of teaching model includes three links: pre-class, in-class and after-class, as well as the teaching evaluation that runs through it. Design needs to plan the specific content of each link, steps, requirements and evaluation methods, and the whole process should not only pay attention to students' autonomous learning and self-management, but also advocate the joint cooperation between teachers and students and among students, besides above, teachers and students use computers or APP of mobile phones anytime and anywhere to discuss the teaching content and after-school exercises. The following are the details of the design of the mixed teaching model:

Preview before class. Pre-class preparation is the first necessary link. Lacking pre-class teaching, students are not only passive, but also have difficulty in understanding and mastering what they have learned, so pre-class preparation is necessary. According to the traditional teaching model, teachers mainly point out the preview content and homework requirements, lack of detailed guidance and display, so the preview effect is general. While under the information-based conditions, teachers can design and arrange the pre-class and classroom teaching content, along with audio, pictures, animation and other media means to enhance interest and ease of memory, so as to enhance the preview effect. Moreover, teachers can count students' learning data through the platform, understand the key points and difficulties of students' learning, so as to improve the pertinence of classroom teaching. Because it is preview before class in advance, students can have plenty of time to watch teaching videos, study course materials, complete corresponding tests. During the learning process, they can enter the platform and discuss difficulties and doubts, help each other solve problems, and share their learning experiences and experiences in the interactive discussion area.

Class teaching. In the mixed teaching model, this link is still the core part of teaching. Teachers give lessons and answer questions about the key and difficult points according to the students' preview situation. During the course of teaching, teachers can use APP platform to carry out in-class exercises and tests, monitor students' learning about knowledge points in real time, and arrange some links such as answering questions and signing in. These activities can not only create a flexible atmosphere in classroom teaching, but also improve students' enthusiasm and interest in the classroom. In this process, teachers are the leaders of teaching activities. When teaching knowledge points, they can use visual video in teaching to vividly present knowledge points with the help of picturesque scenes, so as to effectively attract students' attention and concentration, thus strengthening students' memory. Among them interspersed small tests or thinking questions not only detect the student's learning effect but also exercises their ability to think. For the cultural differences and knowledge points that can cause ideological disputes, teachers can guide students to carry out creative and inquiry learning through discussion, debate and so on, and quickly master the knowledge points of the curriculum. After completing the study of knowledge points, we can organize students to make concluding remarks, let other students comment and ask questions so as to improve students' participation and enthusiasm in learning, stimulate students' desire for knowledge, and at the same time make up for the lack of interesting defects in spoon-feeding teaching.

Review after class. Review after class is the consolidation and reflection stage of what you have learned. On the one hand, teachers can use the network platform to arrange some homework, or carry out online testing, instantly evaluating students' learning results, so that students can understand their own understanding and mastery of what they have learned in classroom, and timely check gaps and missing in response to weak links. Moreover, teachers can also provide online guidance and answer questions. On the other hand, students can look back at the video or teaching courseware many times to consolidate their understanding of what they have learned in classroom, and can also download the relevant extended learning materials uploaded by teachers to strengthen the knowledge learned in the classroom. Students in doubt can discuss with other students and teachers in the platform discussion area, carry out inquiry learning and cultivate innovative thinking.

3.2.2 Constructing the Perfect Evaluation System of Mixed Teaching Model

The mixed teaching model based on information technology is an innovative model with multi-directional interaction in which teachers and students participate together, and the quality of teaching results can be reflected by teaching evaluation. The information-based intelligent teaching platform can collect, save and analyze the learner's learning process, learning efficiency, participation and participation quality before and after class. These data and analysis can objectively reflect the teaching behavior and quality of teachers and students, so as to make objective process evaluation for teachers and students. Students can adjust their learning strategies and manage their learning behaviors through evaluation, and teachers can also reflect on classroom design and adjust teaching methods and strategies through evaluation results.

At present, the mixed teaching model based on educational informatization is still in the groping stage, and has not formed a perfect curriculum evaluation system, as the evaluation method and evaluation effect need to be run-in and verified for a period of time. Compared with the traditional teaching evaluation, the mixed teaching model can carry out more comprehensive and objective process evaluation with the help of information platform. For example, the school carries on the unit or the chapter stage test to the student at any time through the huge question bank, and knows the students' mastery of the teaching content and the learning effect in time. At the teacher level, we can adjust the mixed teaching design according to the evaluation data, reasonably determine the content and method of online and offline teaching, the construction and use of teaching resources, and adjust the curriculum evaluation system. In the classroom, the students' performance and learning effect are evaluated in time, and the enthusiasm of the students is stimulated psychologically. On the line, the students are commented and given directions through various platforms, so that they can clearly understand their achievements and shortcomings. At the student level, the change of learning style is not only the change of learning psychology and cognition, but also the improvement of practical ability and management ability, and the process of independent exploration and innovation in learning style and content. Students' learning effectiveness ultimately depends on their own management and learning strategies. Students can understand their own strengths and weaknesses according to the evaluation from teachers and peers, timely adjust to their own management and learning strategies. Therefore, the mixed teaching model is not only the change of teaching model, but also the change of teaching thinking, idea and practice, which turns the process of knowledge learning into the process of cognitive exploration and innovation with knowledge learning as the medium. Therefore, the curriculum evaluation system should change from hard quantitative evaluation to soft cognitive evaluation. As long as the teaching model can be recognized by teachers and students, especially students, the goal of education and teaching can be achieved, and students can get full personality development on the basis of the principle of "teaching according to their aptitude ", the teaching reform will be successful.

Conclusion: With the help of information resources and means, the mixed teaching model fully integrates online and offline learning resources and media, effectively combines pre-class preparation, classroom learning, after-class review and evaluation, and realizes the complementary and cross-integration of the advantages of in-class and extracurricular learning, which not only provides students with more convenient and colorful learning methods and experiences, but also makes teaching more vivid and efficient. In short, the mixed teaching model based on educational informatization will lead to a series of changes in the field of education. Education departments and schools should fully grasp this development opportunity, reform the traditional teaching model, realize the leapfrog development of the teaching model, integrate and share social resources, fully implement the educational concept of "teaching according to their aptitude ", and provide conditions and environmental protection for students' personality development.

REFERENCES

Shi, J. W. (2018*). Research and practice of mixed teaching model based on "Internet +"*. 2018 2nd International Conference on Management, Education and Social Science (ICMESS 2018).

Sun, H. X. (2018). Study on the mixed teaching mode of independent college based on Moocs Concept. *International Journal of Intelligent Information and Management Science*, (2).

Tao, J. (2019). *Application of mixed teaching model in tourism English teaching*. 2019 Asia-Pacific Conference on Advance in Education, Learning and Teaching (ACAELT 2019).

Wang, X. (2018). *Research on the mixed English teaching model of vocational college under the background of "Internet Plus"*. 2018 International Conference on Social Sciences, Education and Management (SOCSEM 2018).

Wu, Z. L. (2020). The Application of a Mixed Teaching Model to the Academic English Teaching for Graduate Students at Inner Mongolia University. *Creative Education*, (2).