

Research and Practice of Online and Offline Mixed Teaching Mode Based on Current Situation Analysis of Education

Wenyang Lu

Xi'an Peihua University, Xi'an, China

Keywords: current situation of education; mixed mode; promotion of education

Abstract: Based on the analysis of the current situation of education, this paper introduces MOOCs to practice the mixed teaching mode. In practice, we find that the mixed teaching mode is conducive to improving the quality of students' learning and teachers' teaching ability as a whole, so as to better promote low quality course into high quality course.

1. Introduction

At a time of rapid development, the development of Internet information technology has laid the foundation for educational innovation, and it has also provided us with better tools, larger platforms, more convenient ways, and more effective ways to present quality content to learners. At the same time, it also promotes the "trinity" education and teaching reform of value shaping, ability cultivation, and knowledge impartment in schools. Since 2012, different universities at home and abroad have actively explored and made full use of Internet platforms and mobile terminals to promote education and teaching reform in schools. The Ministry of Education has also issued a series of documents and measures to promote the application and sharing of MOOCs and strengthen standardized management.

Combining the needs of teaching reform in colleges and universities, it is imperative to take corresponding measures to promote the reform of undergraduate education and teaching. Firstly, we must strive to achieve "change consciousness in advance". On the one hand, we should realize that "education changes life and the Internet changes education"; on the other hand, we should realize that "the new exploration of the in-depth integration of information technology and education and teaching provides a major opportunity for China's higher education to 'change track and overtake' ". Secondly, "actively meet an emergency" in practical teaching innovation. It is necessary to continuously promote the research, construction and application of MOOC. Finally, "actively seek change" in the teaching practice of specific courses. Combining good resources with students' situation, learning's situation, and school's situation in specific teaching, teachers should use subjective initiative to achieve rapid improvement in teaching quality.

2. Investigation before implementation based on MOOC mixed mode

In order to better promote the effectiveness of education and teaching reform, before the implementation of the new mode, we carried out relevant research and visits for teachers (401 people) directly undertaking frontline teaching work and students (1409 people, to investigate in batch) who have participated in mixed mode teaching. In investigation, we found problems in traditional teaching, and also obtained students' attitudes towards online and offline mixed modes based on MOOC.

2.1 In traditional teaching, both teachers and students have a certain degree of influence on the quality of teaching

From the survey of front-line teachers, we found that in traditional teaching, on the one hand, there is an ability gap between teaching and learning. Students of the independent colleges rarely have the habit of previewing before class. Even if the teacher explains very clearly in the class and the teaching progress slows down as much as possible, students still generally do not understand, do

not want to listen, and experience poor learning. The fundamental reason is that the students' learning ability is not enough. This kind of ability gap between teaching and learning has led some students to develop from the state of not understanding to not attending classes, or even abandoning learning, resulting in an increasing declining teaching situation. On the other hand, teaching design lacks pertinence and precision. Due to the requirements of tasks and progress, teachers pay more attention to the explanation of relevant knowledge points, which makes students' sense of gain limited to low level thinking stages, such as memory, understanding, and application. It is difficult to raise to high level thinking stages, such as analysis, evaluation, and creation. At the same time, due to busy tasks of the teachers, even if students have low level thinking, they have no time to pay more attention and understanding to it. These problems inevitably lead to a lack of pertinence and precision in teaching design and implementation. Thirdly, students' participation is insufficient. Teacher-centered cramming teaching has insufficient student participation, low learning interest and enthusiasm, and low learning effectiveness.

The results of our anonymous survey of students show that students' learning problems are mainly related to insufficient collaboration (32.2%), insufficient participation (31.6%), and more free-riding phenomenon (25.6%), which all have an obvious impact on students' learning effect. At the same time, in the past three years, the most prominent aspect of the college's supervision experts and students' evaluation of teaching is the lack of interaction between teachers and students.

From the above data results of both teachers and students, it can be seen that in the traditional teaching, the problems of lack of teaching and learning ability, insufficient pertinence and precision of teaching design, insufficient interaction, and limited participation are all affecting improvement of the quality of teaching. So it is necessary to carry out teaching reform and exploration.

2.2 Students expect to introduce information technology to teaching and take a positive attitude towards mixed teaching mode

In order to better understand the learning situation, on the one hand, we surveyed students on the introduction of information technology into teaching and improvement communication and exchange skills. Among them, 88.6% of students agreed to introduce information technology into teaching, and 86.9% of students expected to improve communication and exchange skills. These reflect that the indigenous people of the Internet have a high degree of recognition of information technology, and are more willing to communicate and exchange during the learning process, solve learning confusion, and enjoy the learning convenience brought by information technology.

On the other hand, before the practice based on the online and offline mixed mode, we provide training and guidance to participating students so that students can fully understand and know about this teaching mode. And then anonymous questionnaires were conducted on students in five aspects: understanding, difficulty, acceptance, selection and adaptability. The results of the questionnaire showed that 83% of students thought it was easy or normal in terms of difficulty. In terms of willingness to choose and accept this model, nearly half (44%) of the students did not accept this model. Students do not accept this model. Nearly 30% (30%) of the students are unwilling to choose this model. Later, we actually visited the students and found that students were worried about uncontrollable factors in the implementation of the new model, such as influence of their performance, high requirements for learning tools, heavy learning tasks, etc. But most students (60%) have a positive attitude towards adaption of this model, and 32% are neutral, which indicates that the vast majority of students are confident in adapting to this model. In general, most students have a positive attitude towards the new model, but at the same time have some degree of hesitation about the new model.

3. Analyze the current situation of education, introduce online resources, and carry out mixed teaching reforms

3.1 The actual current situation of undergraduate teaching

Because from the current situation of teaching, whether it is students, teachers or schools, there

are foundations and prerequisites for adopting online and offline mixed models.

Firstly, students at school. The young students who are currently in school are indigenous people of the Internet. They are accustomed to using the Internet and adopting the method of Internet to improve cultivation of thinking and ability in teaching, to achieve innovation in content and methods, to increase the challenge of the curriculum, to strengthen the management of the learning process inside and outside the class, and they do not have too many technical obstacles. In addition, the use of WeChat, course platforms and corresponding APPs that based on the Internet in communication can better solve the lack of communication between teachers and students in the past. Online teaching videos, assignments, discussions, and quizzes are placed on the same platform, which can timely understand the student's learning situation and timely feedback homework; offline classes mainly solve their learning problems, thereby highlighting the high-level, innovative and challenging of learning. Online and offline mixed teaching complement each other, it is possible to achieve the whole process, comprehensive, three-dimensional teaching, close teacher-student relations, optimize learning methods, increase student investment, thereby helping students improve their learning efficiency.

Secondly, let's talk about teachers. On the one hand, learn the curriculum design and teaching experience of other schools and teachers through online courses; on the other hand, designing teaching and making online courses is a rethinking and re-improvement of teachers' own teaching design and ability. To iterate and advance continuously in repeated reflection and practice. At the same time, this open teaching and learning will promote teaching from internal pressure to internal motivation. Good resources and the compulsion of students' learning in teaching, teachers themselves will strive to do better, this is the intrinsic motivation. Thus force the reform of class teaching to fully mobilize the passion of "teaching", improve the quality of teaching, and form a closed-loop system with feedback of teaching and learning.

Thirdly, from the school's perspective, the introduction of good curriculum resources to enhance class teaching, and output good curriculum resources to promote comprehensive development. This has lead to the concept of school-running in private colleges, the open-loop integration. The online and offline mixed mode courses not only serve students but also serve teachers. While concentrating efforts on development, it can also serve more social learners and also reflect the university's social responsibility.

3.2 Introduce MOOC resources based on the current situation and research, and implement mixed teaching

Based on the above current situation and investigations, we conducted overall design and implementation of multiple rounds of online and offline mixed teaching model courses.

First of all, according to the mastery requirements of knowledge points, design the guidance materials of the curriculum based on the students' ability.

Before class, teachers should pay attention to students' lack of ability and the helpful need of ability improvement, and design instructional materials. To complete the summary by completion, short answer questions, judgment and analysis questions, and case analysis questions. Among them, through completion to guide students to dig out the core knowledge elements when watching the video; then use the short answer questions to guide students to conclude and summarize the knowledge points; finally, through judgment and analysis questions and case analysis questions of various different forms, different levels to cultivate students' ability to apply knowledge and complete low-level thinking process. Then, based on the syllabus and teaching goals, design a checklist and use the average level of the entire major and class as a reference to guide students to summarize the achievement of learning goals and the advantages and disadvantages in the learning process, and fully let students understand their own learning effects and create a superposition momentum for subsequent learning.

In short, based on the MOOC teaching video, along with the guidance materials provided by the teachers at different stages, it not only provides students with sufficient freedom and sufficient study time and space, but also provides sufficient and appropriate reference objects to allow

students to understand their own learning situation and to attract students to invest more time and energy in the learning process. To improve students' learning ability, help students to cross the ability gap, and also improve the learning experience of students, guide them to understand the space for improvement in their own learning. To complete the guidance materials in a virtuous circle, promote student-student interaction, and promote the occurrence of autonomous and effective learning behaviors of high-participation.

3.3 Based on platform data analysis and learning situation, complete classroom teaching design in class

Based on the platform data, the analysis finds that universality and individuality problems that students show in pre-class learning and teachers design more targeted discussion questions in the classroom, and guide students to discuss knowledge points, solve problems, and analyze cases in groups. To promote students' active participation and active thinking, digest individualized problems among friends or groups, and realize knowledge internalization; gradually cultivate students' abilities of problem-solving, teamwork, communication and other series of abilities; this kind of student-oriented discussion teaching can further stimulate students to "show" in the classroom, meet the need of students to show their elegant appearance, and maintain the need of the sense of achievement of collective honor, so as to urge them to change their learning habits and actively do well in pre-class preparation.

"Student-centered" online and offline mixed teaching reform directly faces a series of problems in teaching. By introducing MOOC resources, it reshapes the teaching links, builds the supporting teaching resources, and increases students' participation. And also form a targeted, operable, and step-by-step ability cultivation path, which greatly stimulates the students' enthusiasm and interest in learning and teaching goal has been transformed from knowledge impartment to ability training.

3.4 Teaching effect of curriculum has been effectively improved

In the process of exploration of the new model, we have adopted continuous improvement step by step to promote the teaching of the new model. In general, the teaching effect is satisfactory.

First of all, students' participation in communication before and in class has improved significantly in the online and offline mixed teaching mode.

According to the cognitive rules of students, only when they participate in the class and often communicate with their peers and teachers about learning problems so as to promote brainstorming can effective learning really happen. According to the statistical analysis of platform data and students' questionnaires, we found that compared to the traditional mode and online learning mode (network mode), the proportion of students' often participation and communication behavior in the mixed teaching mode accounted for 72%, which is much higher than the other two teaching modes (8.3%, 19.7%).

Secondly, students' ability has improved significantly.

At the end of each round of online and offline mixed mode implementation, the anonymous questionnaire was conducted from 10 dimensions (independent learning ability, ability to collect the information they need through effective channels, oral expression ability, written expression ability, and ability to communicate with others, ability to look at problems dialectically, ability to analyze and solve practical problems with the knowledge learned, stimulation of awareness of innovation, and actively innovation in learning and practice, the degree of correct and objective understanding of themselves, and independent opinions and correct value judgments towards things, etc.) of changes of students to evaluate their abilities. To allow students to score their ability improvement from low to high, scoring from 0 to 5 points. The results of the questionnaire showed that students scored more than 3 points, and the proportion of the students exceeded 90%. This shows that the students' ability to participate in the practice of the new model has improved significantly. Among them, the improvement of oral expression ability is the most significant. The number of people who score 4 to 5 points accounts for 83.4%, followed by the two abilities: "independent opinions and correct value judgments towards things" and "ability to look at problems dialectically". 4 to 5 points accounted for 71.5% and 71.6% respectively. The above data means that the vast majority of

students think that their various abilities have improved significantly, which proves that the reform goal of teaching reform from knowledge impartment to ability training is gradually being realized.

Thirdly, teachers are growing rapidly in teaching reform, resource sharing and co- construction and inter-school integration.

Mixed mode teaching encourages teachers to better understand the core connotation of “student-centered teaching and learning” and realize that the key point of teaching should be changed from “studying how to teach to studying how students learn”. The specific manifestation is that teachers can learn the curriculum design and teaching experience of other schools and teachers through online courses. On the other hand, during the implementation of the course, teachers have to rethink their teaching goals, sort out their own teaching modes, and plan their own course content, design their own online and offline class. It is rethinking and re-improving of teachers’ own teaching design and ability. This makes teachers’ ability of determination of teaching goals, information technology ability, teaching design ability, class control ability, the ability of development and utilization of educational resources, education, teaching and research abilities and other series of teaching abilities improve rapidly.

Fourthly, improve the quality of courses and change the “low quality course” into a “high quality course”.

Through mixed mode that based on MOOC, the time allocation of students’ knowledge learning and cognitive learning is optimized. That is to say, through “online education to meet the students’ need of knowledge learning, and cognitive learning should be solved by class teaching.” To change the low quality courses with the characteristics of low-level, obsolescence, and mindlessness into the high quality courses with the characteristics of high-level, innovation and challenge. This is also the trend and direction of future education.

4. Conclusion

Through research and practice, most teachers and students agree with this MOOC-based online and offline mixed mode. This integration effect of information technology and education and teaching promotes the deepening of teaching reform and the improvement of teaching quality, quickly narrows the gap in the teaching level and quality of colleges and universities in developed regions, and promotes the connotative development of our school. At the same time, we also recognize that there are still some problems, such as: teaching concepts and thinking need to be positively changed, policy responses must be rapid and agile, teaching staff still need to be continuous optimized, resource construction still need to be intensified, and the requirements for improvement of the development of connotation are still urgent.

In the version 2.0 of the Excellence Plan that has been launched by the Ministry of Education and the derailment overtaking plan of undergraduate teaching that based on informatization, we must seize new opportunities and expand online teaching, mixed teaching and other various teaching mode on the basis of continuous practice and improvement. To promotes the reform of teaching methods, management modes, and education service ways, supports the cultivation of talents with informatization, and strives to achieve the characteristic development road of our school with a certain advanced level and the in-depth integration development of information technology and education and teaching.

References

- [1] Lingqing Song. Research on Challenges and Professional Development Facing Teachers in the MOOC Era [J]. China Educational Technology 2014 (9).
- [2] Xiaodong Li. Challenges and Countermeasures of Teachers’ Teaching Ability in Colleges and Universities by “MOOCs Courses” [J]. Journal of Nanjing University of Science and Technology (Social Science), 2014, (2).
- [3] Ministry of Education. Opinions on Strengthening the Application and Management of Online

Open Curriculum Construction in Colleges and Universities [EB / OL]. http://www.gov.cn/xinwen/2015-04/28/content_2854088.htm, 2015-07 -05.

[4] Teaching Technique [2012] No.5, Ministry of Education on Printing and Distributing *the Notice of Ten-year Development Plan for Educational Informatization (2011-2020)* [Z].

[5] Changhai Zhang, Jianli Jiao. Study on the Influence Factors of Acceptance of MOOCs Courses by Students of Local Colleges and Universities [J] China Educational Technology 2015 (6).

[6] Youru Xie, Miaoshan Ni, Jing Bai, Huiyan Zhang. MF Teaching Mode Combining Flipped Classroom and MOOCs in Colleges and Universities[J]. China Educational Technology 2015 (10).