The Practice of Blended Teaching Reform Focusing on Ability Cultivation: A Case Study of the Business Operation Simulation Course

Yingmei Guo, Yunying Bao, Junwen Lu

College of Economics and Management, Yunnan Agricultural University, Kunming, Yunnan Province, China

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Abstract: Blended teaching is the application of information technology in the field of education. The teaching goal transfers from knowledge imparting to ability cultivation. In an agricultural college of western China, the blended teaching reform carries out in the “Business Operation Simulation Course”, which is a main course for economic management specialties. Through analyzing this example, this paper summarizes the reform effects from three aspects: virtual simulation training which focuses on ability training; the mode of “Internet + agriculture and forestry education” relies on multiple smart teaching tools and platforms; the diversified whole-process evaluation system focuses on process learning. Combined with the results of investigation on teachers, following conclusions are put forward. Three factors restrict the effectiveness of blended teaching reform: the transformation of teachers' consciousness and cultivation of lifelong learning awareness; incentive and guarantee mechanisms established by the school; students' cognitive transformation and learning habits. Only by forming joint forces can we guarantee the high quality undergraduate education in colleges and universities and create “excellent courses”.

1. Introduction

With the extension of information technology in the field of education, new challenges have been put forward to the teaching reform of higher education. In 2017, the Ministry of Education promulgated the *13th Five-Year Plan of Education Informatization*, emphasizing that colleges and universities should adhere to the “deep integration of management informatization as well as education and teaching innovation” once again. Agricultural colleges and universities should take the blended teaching reform as the starting point, and actively explore reform methods for the Internet + agriculture and forestry education which fit the development trends of agricultural education and multi-disciplinary integration.

2. The Significance of Blended Teaching Reform

The blended teaching reform originated in the United States. The international education circle put forward the idea after reflecting on the practice of “E-learning”. [1] Blended-learning means to integrate the complementary advantages of traditional classroom teaching and online learning, and design teaching activities on that basis. [2] Compared with the traditional classroom teaching, the application of blended teaching in colleges and universities has three advantages. First, it strengthens the learning supervision mechanism and can provide timely feedback. Second, it can improve the degree of classroom participation through multiple interactions. Thirdly, it embodies the learner-centered teaching concept.

3. The Practice of Blended Teaching Reform in the Business Operation Simulation Course

The author works in an agricultural college of western China. The blended teaching reform carries out here from four aspects in the Business Operation Simulation Course, which is a main course for economic management specialties..

3.1 Virtual simulation training sessions focusing on ability cultivation

The Business Operation Simulation Course is designed based on the Seentao New Business Sand Table System V5.3 and the Yuechuang Cloud Platform. Students need to play the roles of CEO

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(chief executive officer), CFO (Chief Financial Officer), CMO (Chief Marketing Officer), COO (Chief Operating Officer), CPO (chief public relation officer) and other operators. The training content is managing the whole operation process of a modeling enterprise; the platform can simulate the operation of the enterprises in different accounting years.

3.1.1 Cultivate students' abilities of constructing knowledge structure and solving problems on their own initiative, and stimulate students' learning enthusiasm.

The constructivist learning concept, which emerged in the 1970s, has learned from the achievements of educators such as Piaget and Vygotsky. It emphasizes learner-centered teaching and pays attention to the autonomy, hierarchy and situationality of learning activities. [3] The virtual simulation experiments represented by the simulation course of enterprise operation can be regard as teaching a mode which combines experience, practice, interaction and confrontation. Through the role-playing, students simulate the operation process of production and marketing in different life cycles of manufacturing enterprises. In the group confrontation, they need to make decisions according to the actual situation. Under that circumstances, they can actively explore knowledge and improve their ability to analyze and solve problems.

3.1.2 The progressive experimental teaching can improve students' innovation and entrepreneurship abilities

Taking this course as an example, we adopt the progressive teaching method, which consists of three practical teaching modules: manual sand table, electronic sand table and the Yuechuang platform. The three training modules have their own emphases on situations stimulated, training modes and abilities cultivated. The step-by-step training teaching not only conforms to the law of education, but also deeply integrates the practical requirements of cultivating economic management talents and carrying out innovative entrepreneurship education. The process is shown in Table 1.

Table 1. Comparison of Training Modules in the Three Phases of Business Operation Simulation Course

Phase	Stimulated situation	Training method	• Abilities cultivated
Manual sand table	Tracking decision-making situation in manufacturing enterprises which integrate supply, production and sales	Carrying out in offline laboratories; relying on the sand table as teaching aids	(1)Tracking decision-making ability (2) Budget management ability (3) Marketing ability (4) Production and operation management capability (5) Financing ability (6) Team building ability
Electronic sand table	The establishment, maturity and development of enterprises with supply, production and marketing processes; the characteristics of different market life cycles are shown	On-line and off-line	(1) Entrepreneurial decision-making ability (2) Strategic planning capability (3) Financial management ability (4) Marketing management ability (5) Production, operation and management capability (6) Team building ability (7) Stress management ability
“Yuechuang”, the Internet + innovation and entrepreneur-ship education platform	A complete, high-simulation Internet + practical education cloud platform integrating business scenarios, role-playing, scenario simulation and business review. Students can directly participate in the business activities of the “enterprises” in the highly realistic market competition environment.	Innovation and entrepreneurship education cloud platform and practice system with Internet as the carrier; combining online and offline	(1) Strategic management ability (2) Communication and coordination ability (3) Technological research and development capability (4) Marketing ability (5) Production, operation and management capability (6) Financial management ability (7) Leadership (8) Team building ability (9) Stress and frustration management ability

3.2 Relying on a variety of smart teaching tools and platforms and explore the "Internet + agriculture and forestry education" model

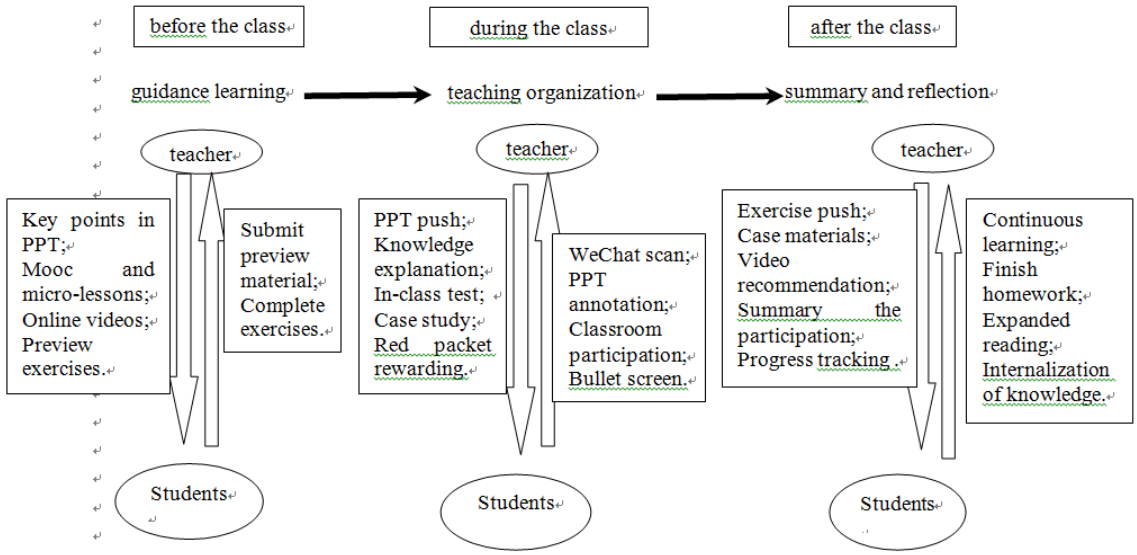

Figure 1. The Blended Teaching Reform Model Combining Online and Offline, as well as Activities Before and After the Class

In agricultural colleges in the border area, students have poor self-learning consciousness and low participation degree in class. The guidance on learning is not well designed. The business management simulation course is taken as an example. Before class, the teacher sends the learning materials (including PPT, videos, preview exercises and so on) to students through the mobile terminal; students can preview through mobile devices such as mobile phones. In the course, students enter the classroom through Wechat scanning. Teachers comment on the students' preview and optimize the teaching design. Students can receive PPT synchronously through mobile phones and mark difficult points. Then the teacher stimulates students to think actively through in-class tests. The teacher-student interaction can also be carried out through bullet screens and red envelopes (containing money as the gift). These activities greatly mobilize students' enthusiasm in classroom. After class, teachers send students exercises, cases, thematic audios, online course videos and other materials through the mobile device so as to promote students' knowledge internalization. The process is shown in Figure 1.

3.3 Developing diversified and whole-process evaluation system and focusing on process learning

Taking the simulated course of business operation as an example, the evaluation of students' academic performance has changed from summative evaluation to whole-process evaluation. Their academic performance consists of four modules, including classroom participation (20%), business performance of the simulated enterprise (40%), quality of the experimental report (30%) and team assistance (10%). The whole-course evaluation focuses on examining students' ability to analyze and solve problems by using knowledge, and can avoid the situation of "high marks and low abilities".

4. Reflection

As a front-line teacher in an agricultural university of Western China, the author participates in and experiences the blended teaching reform which proposed by the educational administration department and the teacher development center. Combining with the teaching practice and the investigation of teachers, it is found that three factors restrict the effectiveness of blended teaching reform.

4.1 Teachers need to actively change concepts and foster the lifelong learning idea

The *40 Articles on Higher Education in the New Era* issued in October 2018 reiterates that improving the teaching ability is the cornerstone of uplifting undergraduate education quality. However, according to the survey, some senior middle-aged and old teachers in the agricultural college doubt or hold conservative attitudes towards the implementation of blended teaching reform. They respond to the practice of blended teaching passively, neglecting that teachers' professional growth is the long-term driving force for their career development. According to Berchester, Phillips and other scholars, the development of university teachers includes three dimensions: teaching development, organizational development and personal development. [4] In the new era, university teachers should always maintain the spirit of reverence for the teaching career, uphold the concept of lifelong learning, and take initiative to challenge the existing educational ideas, teaching strategies and teaching modes.

4.2 Incentive and guarantee mechanism established by colleges and universities

4.2.1 Innovation of the incentive mechanism for teachers

The imbalance of teachers' investment in “teaching” and “scientific research” and the alienation of teachers' evaluation system in colleges and universities [5] are topics repeatedly discussed in the academic circle. In order to build “excellent courses” and improve the quality of undergraduate education, it is necessary to innovate the existing teachers' incentive mechanism, and shift from the single research-oriented evaluation mechanism to a teaching-oriented evaluation mechanism. The reform can be carried out from the perspective of assessing teachers' performance, the salary design and the promotion of professional titles, so as to fully mobilize the teaching enthusiasm of front-line teachers, and encourage them to spare no efforts in the process of blended teaching reform.

4.2.2 Optimization of teaching conditions

The blended teaching reform is the application of information technology in the field of education. In practice, agricultural colleges and universities in western areas are constrained by the shortage of educational resources, the limited investment in campus network construction, and the slow speed of campus network. The teaching resources transmission is not timely. The outdated multimedia classroom facilities and the lack of maintenance services also affect the effectiveness of blended teaching organizations to a certain extent. Therefore, the improvement of campus network facilities and the optimization of teaching conditions are also the material guarantee for the smooth blended teaching reform.

4.3 Students' cognitive changes and the formation of good learning habits

In 2018, with the enrollment of new students who born after 2000, the teaching objects of colleges and universities are also changing quietly. The new generation of college students, known as “Internet aborigines”, have new characteristics in their thinking mode and learning style. From the perspective of students, they should establish a more open and inclusive vision on learning, develop self-conscious and good learning habits, carefully preview before class, actively participate in class, expand learning after class, and realize the virtuous circle of knowledge internalization. Only when students are deeply involved in it, can the blended teaching reform achieve twice the result with half the effort.

5. Conclusion

To sum up, the blended teaching reform represented by the simulation of business practices requires the joint efforts of schools, teachers and students. Only when they join forces and cooperate with each other can we guarantee the high quality of undergraduate education.

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