

Evaluation of learning effect of blended teaching mode ----- Take the international finance course as an example

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Abstract. In the era of big data, the school's teaching mode has gradually transformed its focus from the traditional teaching mode to the blended teaching mode integrating online teaching and offline teaching. In order to explore the learning effect of students under the blended teaching mode and cultivate the all-round development of economic talents, this paper conducts an in-depth investigation on the blended teaching effect of international finance course, the core course of finance major. A total of 161 students majoring in finance in 2019 were selected as research objects. According to the scores of international finance courses, the subjects were divided into research group (n=83) and control group (n=78). The research group selected students with high scores of international finance courses, while selected students with low scores as the control group. According to the results of the questionnaire and innovation satisfaction survey of students studying international finance courses, the following conclusions can be drawn: Students in the research group accept the blended teaching mode more than those in the control group ($p < 0.01$), and students in the research group are better than those in the control group in the cultivation of innovation ability. Therefore, the blended teaching model should not only improve the ability of students with high performance, but also pay attention to the learning effect of students with low performance, so as to avoid extreme differentiation of learning effect.

Keywords: Blended education; Teaching effect; International finance; big data; Autonomous learning.

1. Introduction

In the era of the popularization of the Internet and big data, education has gradually built a complete and systematic conceptual and theoretical framework. In the 13th Five-Year Plan, the education department proposed a new charter [1] to vigorously promote the reform of online and offline education in major universities. Under the background of integrating online teaching mode into traditional teaching mode, the new teaching mode solves the problem of the limitation of traditional teaching in time and space, and lays the foundation for the comprehensive construction of diversified teaching mode. The blended teaching mode can promote students to finish the learning task subjectively and actively, and improve the comprehensive quality of students [2]. In the hybrid education model, students can use the network platform to give full play to their personal opinions, enhance the ability of language expression and communication, and solve some problems of teachers in the traditional teaching model to a certain extent. Paying attention to the formative evaluation of students in the learning process is very beneficial to the development of students' ability [3]. It is inaccurate and incomplete to take grades as the only criterion for evaluating students, while hybrid teaching continues the advantages of traditional teaching mode and solves some defects brought by traditional teaching. Blended teaching is of positive significance in cultivating students' ability of independent learning and realizing multidimensional teaching objectives of knowledge, ability and teaching effect. In the process of exploring the teaching model, colleges and universities realize that there are some problems in the traditional teaching model, so they turn to the education model combining the Internet and the traditional teaching model one after another. The mixed teaching model has been applied to many subjects such as finance, financial accounting, econometrics, etc. Therefore, the exploration of the teaching effect of the mixed teaching model should be a hot issue in recent years.

International finance is a basic and compulsory course for finance majors. Understanding internal and external balance is the core of international finance courses, and it is also an important part for students to establish and improve the construction of financial thinking system. Therefore, students' realization of teaching objectives at all levels of international finance courses determines the development of students' abilities. Wang Jianming believes that the blended teaching mode based on online courses should be applied to course teaching [4]. Since the international finance course mainly includes two parts: basic theory and financial practice, this course has strong practicality and extensive theory, and the international Finance course has been selected as the seventh batch of excellent courses. Therefore, international finance course is chosen as the research object of blended teaching model learning effect evaluation. The hybrid teaching mode adopts the mode structure of online learning platform and offline courses in parallel, and the teaching method changes from teacher teaching to students' active learning, so as to improve students' ability of scientific research innovation, cultivate the sense of teamwork, stimulate students' interest in learning, while promoting the comprehensive development of students' pentagonal ability.

2. The effect of hybrid education mode

Hybrid education model perfectly integrates traditional teaching model and information technology teaching by using the teaching mode of online learning platform and offline classroom teaching in parallel [5]. Students learn by video through the Super Star Learning Connect software, which provides basic theoretical guidance for students to learn professional knowledge in the future. At the same time, teachers teach theoretical knowledge in offline courses and extend and expand the content of textbooks, guiding students to cultivate independent thinking ability and develop their learning potential.

During the beginning of the semester course, students can participate in the online course discussion independently, express their own opinions and opinions, and stimulate the desire of students to discuss knowledge. In offline classroom teaching, teachers guide students to take the initiative to ask questions, improve their ability to think independently and cultivate innovative thinking.

At the end of the course, students should give feedback on the platform in time to contribute to the realization of the teaching effect goal. In the offline class, students are divided into discussion groups for follow-up study, which greatly cultivates their team writing ability. Therefore, the blended teaching can achieve the goal of improving the teaching quality to some extent. The effect of blended teaching mode is different for students at different levels. Students with excellent academic performance and strong learning ability have a higher acceptance of blended teaching, but some students with weak learning autonomy and low academic performance cannot achieve the effect of traditional teaching mode in blended teaching. Therefore, improving the learning effect of students with low scores has become an urgent problem to be solved by hybrid education. Blended teaching should give full play to the advantages of online teaching and face-to-face teaching [6], and effectively implement the advantages of blended education to each student. Based on the actual learning effect of students, the differentiation of learning effect of students should be minimized to the greatest extent.

3. Research process and method

3.1. Research objects

This survey selected 161 students majoring in finance from the class of 2019 as research subjects. The students were divided into study group (n=83) and control group (n=78) according to their scores in international finance courses. Male students accounted for 49.69% and female students accounted for 50.31%. In order to avoid the influence of scores on the emotions of respondents in filling out questionnaires, the scores were set as high and low. The average score of the course is 75.

3.2. Research methods

In order to further explore the evaluation of students' learning effect on blended teaching, this paper adopts the method of questionnaire analysis.

Effect analysis is carried out from three dimensions: knowledge goal, ability goal and teaching effect goal. The questionnaire was conducted in the form of five-level Likert-scale model. Spss22.0 software was used to analyze the reliability and validity of the questionnaire (excluding subjective questions) [7]. The standardized Cronbach $\alpha=0.942$ and coefficient value >0.8 indicated high reliability of the questionnaire data. The KMO value of questionnaire data was 0.954, indicating good data validity.

3.3. Questionnaire survey

After the end of the final examination, the questionnaire was sent to the two groups of students. The students filled in the questionnaire after scanning the two-dimensional code, and submitted the information after completing the questionnaire. A total of 161 questionnaires were recovered and 0 were invalid, and the efficiency and recovery of the questionnaire reached 100%. In this survey, the satisfaction evaluation of learning effect was divided into five grades from "very consistent" to "very inconsistent". The five-level scoring system was adopted, and "very consistent" was set as 1 point, and so on.

3.4. Statistical processing

In this paper, spss22.0 software was used to calculate the mean value of all the data, independent sample t test, chi-square test and so on, and analyzed from various perspectives. A p value less than 0.05 was considered as a statistically significant difference. Through multiple tests, the effect of blended teaching is actually investigated.

3.5. Research results

According to the survey results, students with high scores are significantly higher than those with low scores in achieving their goals. The goal realization degree of the study group was significantly higher than that of the control group ($p>0.000$). According to the average satisfaction of the study group and the control group, it can be seen that students with high scores have stronger satisfaction with blended teaching to achieve multi-dimensional teaching objectives, while the value of the control group is relatively high, indicating that students with low scores in international finance courses are not fully adapted to the blended teaching mode, especially in the improvement of language expression ability, the average difference is more obvious. The average value of the research group was 2.00, while that of the control group was 2.87, indicating that students with good performance would give a positive response to the teacher's questions in class, while students with poor learning effect could hardly have a deep understanding of the questions told by the teacher in subsequent courses due to their weak grasp of basic knowledge. As a result, students' language expression ability has not been really improved. More than 83.48% of the respondents believe that hybrid international finance courses are highly practical and will be of great help to their future study and work.

As can be seen from Table 1, there is an obvious correlation between student achievement and the aspect of stimulating learning interest of knowledge objectives. According to the questionnaire, the chi-square value of both was 12.425 and the P-value was 0.001. Students with excellent academic performance believe that blended teaching mode can develop students' learning potential, greatly improve their knowledge control ability, and enhance students' knowledge summary ability, which lays a solid foundation for the construction of financial professional knowledge system. I can think independently about important and difficult problems encountered in the course, and have profound communication with teachers after class, so as to improve my dialectical thinking ability.

Table 1. Survey results of the two groups of students.

Evaluation content	Specific project	Research group n=83	Control group n=78	χ^2	p
Knowledge objective	Stimulate learning interest	2.08	2.72	12.425	0.001
	Develop learning potential	1.99	2.71	19.639	0.000
	Improve knowledge control	2.14	2.76	22.092	0.001
	Learn professional knowledge	2.00	2.54	10.295	0.002
Capability objective	Stimulate the desire for knowledge discussion	2.08	2.59	10.773	0.004
	Improve knowledge summary ability	2.16	2.78	16.925	0.001
	Improve your language skills	2.00	2.87	11.326	0.000
	Enhance communication skills	2.33	2.76	7.843	0.020
	Develop the ability to learn actively	1.99	2.53	13.030	0.001
	Improve teamwork ability	2.17	2.83	15.193	0.000
Teaching effect target	Cultivate innovation ability	2.04	2.68	17.729	0.000
	Provide feedback to teachers	2.11	2.56	9.477	0.010
	Promote teacher ability development	2.00	2.91	24.859	0.000
	Promote teacher-student emotion	2.08	2.82	23.367	0.000
	Improve teaching efficiency	1.93	2.51	15.148	0.000

Based on the questionnaire survey, the students majoring in finance are investigated in their native places. The students whose native places are urban are taken as the research group, and the students from rural areas are taken as the control group. Students from cities and towns have a higher degree of acceptance of the hybrid education model than those from the countryside, and the P-value of achieving the innovation goal is particularly significant, which indicates that there is a difference between students from the countryside and students from the city in the cultivation of innovation ability. Only 3 people in the control group were very satisfied with the improvement of innovative ability of blended teaching, while 20 people in the research group were very satisfied with the choice. The urban students believed that blended teaching mode really cultivated the ability of innovative thinking, while the rural students thought that it had little effect.

Table 2. Satisfaction evaluation on innovation ability cultivation in urban and rural areas.

grouping	n	Very satisfied	Relatively satisfied	In general	Not quite satisfied	Not satisfied	P
Research group	83	20	17	9	4	3	0.000
Control group	78	3	16	18	7	4	

3.6. Result analysis

The blended education mode often adopts the student group system. In the group discussion, students can express their opinions, which can fully improve the awareness and ability of teamwork of students. Students with high scores tend to play a leading role in group discussions, while students with poor knowledge base are reluctant to speak in public for fear of making mistakes. Their

participation in class is very low, which will make some students hate learning and adversely affect the development of comprehensive ability. After the discussion, if students can actively communicate with teachers, it will be beneficial to enhance the feelings between teachers and students. It can be seen from Table 2 that the average value of the teaching effect goal of the research group is much lower than that of the control group, indicating that the teaching effect goal of the blended teaching teacher is not fully reflected in the students with poor performance. Secondly, blended teaching mode requires high moral quality and professional level of teachers [8]. If teachers' evaluation of students in class is not in line with their actual performance, students' enthusiasm for learning will be discouraged. By observing the average value of the data of the control group, it can be seen that the total average value is less than 3, indicating that even though the students with poor academic performance do not achieve a strong learning effect in the blended education, the cultivation of comprehensive ability is improved compared with the traditional teaching mode. Therefore, in order to achieve the goal of comprehensively cultivating students, it is necessary to continue to develop hybrid education mode, enhance the participation of students with poor autonomy in teaching, and improve learners' autonomous learning ability, communication and expression ability, and teamwork awareness. Hybrid education should cultivate students' autonomy, establish students' critical thinking mode, and realize the enhancement of the feelings between teachers and students to carry out comprehensive and systematic quality training for students, truly realize the true connotation that teachers are the guide rather than the leader of students' learning, and comprehensively establish the education mode with students as the main body.

In terms of the difference between urban and rural education, rural schools usually adopt traditional teaching mode in teaching methods and use relatively backward teaching equipment. Students are used to the teaching activities of teachers as the subject of teaching, rather than the subjective initiative to learn knowledge. After entering the university, especially in the post-epidemic period, blended teaching has become the mainstream teaching mode. For those who have little access to online teaching platforms such as Chinese MOOC, it is difficult to adapt to the mixed teaching mode. The new teaching mode will reduce students' learning enthusiasm and initiative. In the past, traditional teaching mode could not effectively develop students' ability to think creatively. Therefore, students rarely express their independent opinions in class group discussion, which may gradually become disconnected from class, and fail to achieve the expected goals in terms of achieving teaching effect and improving teaching quality [9]. If students do not really establish the cognition of critical thinking, they will have certain defects in the structuring of knowledge system [10]. Training the dialectical ability of logical thinking of college students is an important part of the construction of financial system. As passive recipients of knowledge, it is difficult for students to cultivate the ability of independent thinking. Mixed teaching thinking should be permeated in order to facilitate the connection between junior high school education and university education. Fu Ying-jie also proposed in the article that students' thinking ability should be constantly exercised [11] to promote the development of students' comprehensive quality.

4. Conclusion and suggestion

As the core course of finance major, international finance requires students to have the ability of dialectical analysis in understanding knowledge points, which is of great practical significance for students' subsequent study of financial professional knowledge. Therefore, it is necessary to explore the learning effect of blended education mode on students. Through the three-dimensional teaching goal system of knowledge goal, ability goal and teaching effect goal, this study constructs the analysis index of students' learning effect of blended teaching. Instead of taking a single final grade as the final evaluation, it attaches importance to the development of students' comprehensive ability. Blended teaching plays an important role in cultivating students' innovation ability, stimulating students' interest in learning, cultivating students' communication ability and improving students' awareness of solidarity and cooperation. Hybrid education model also has some drawbacks. The

effect of hybrid education cannot be fully implemented for every student, resulting in differentiated development of students. Students with poor degree receive less promotion under the new education model, and students in towns and villages have a weak acceptance of the hybrid education model.

The development of hybrid education should not only focus on the mastery of knowledge points, but also pay attention to the cultivation of students' comprehensive quality, so as to promote the balanced development of students in hybrid education. Mixed education needs to prepare students in their junior and senior high school years, so as to avoid the rejection and strangeness of the new education model. At the same time, the process of urban-rural education integration should be strengthened. The analysis of teaching effect shows that hybrid education conforms to the development trend in the Internet era and promotes the comprehensive quality of students.

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