Blended Teaching Based on College Students' Sense of Acquisition Evaluation-A Case Study of Wuhan University of Technology

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Abstract. The purpose of blended teaching reform is to use advanced technology to guide students to study independently and deeply, so as to improve the sense of learning achievement of college students. This paper takes the students' acquisition consciousness as the starting point, takes the blended teaching model as the research problem, and adopts the method of rooted theory to interview some students and teachers of Wuhan University of Technology. The study found that there are some problems in MOOC classroom, such as poor system operation, unclear content design, reform slogan and so on, and some suggestions are put forward to improve the mixed teaching reform, such as strengthening training, grading learning, rearrangement etc.

Introduction

In recent years, the blended teaching mode of the combination of online and offline teaching has been highly respected, and more have replaced the traditional "teacher theory-student record" teaching model. In April 2018, the Ministry of Education issued the Education Informatization 2.0 Action Plan, which included eight actions such as the implementation of e-learning space coverage. It is imperative to break through the bottleneck of educational development in colleges and universities and promote the reform of educational innovation by means of increasing informatization. The informationization of higher education is an effective way to promote the reform and innovation of higher education and improve the quality, and it is also the innovative frontier of the development of educational informatization [1]. MOOC and other software as the carriers and symbols of web-based learning, and the development of them is bound to be more organized and systematic, while the audience of college students will be more and more. Of course, the learning tools that serve the students should be able to stimulate the students' initiative. The sense of acquisition of college students is not only the ultimate goal of their improvement, but also the initial starting point.

So far, although there are more than 3000 articles about blended teaching and 64 about the sense of acquisition of ideological courses alone. There are only 2 articles covering both "blended teaching" and "sense of achievement". Thus, it can be seen that most of the studies on blended teaching reform so far ignore the feelings of college students as the subject of experience, and most of the studies focus on ideological education. The educational impact of other professional courses on students is ignored. Based on this, the author tries to explore more universal hybrid teaching improvement measures from the sense of acquisition of college students.

Literature Review

The sense of acquisition is a kind of psychological feeling in which self-value is satisfied. It is a collection of emotions in which the object continues to believe in the value of knowledge with the help of educational activities and the resulting deep recognition of self-value [2]. J. Wen (2018) divides the sense of acquisition of college students into three dimensions of AIA (Access, Identity, Achievement): opportunities for reading, employment, democratic participation, and social recognition. During the period of college students, the ability and quality of all parties can be better
improved [3]. Generally speaking, the measurement of college students' sense of achievement is based on the interaction between the individual and the external environment, and ultimately returns to the degree of personal ability improvement, but the sense of acquisition is a kind of subjective feeling. Affected by college students' personal experience, value pursuit and learning level, it is difficult to divide their levels, whether the concept or measurement standards are different, difficult to unify. However, the common recognition is that in order to enhance the sense of achievement of college students, to meet the needs of college students and pay attention to fairness is the primary factor [4].

With the support of curriculum planning and teachers, blended teaching is suitable for different subjects and experience education [5]. Driscoll (2017) proposed that blended teaching should include four aspects: Web-based teaching, blended teaching of multiple methods, blended teaching of educational technology and face-to-face classroom teaching [6]. The blended teaching in this paper refers to the combination of web-based teaching and face-to-face classroom teaching. The investment in web-based teaching includes the overall learning objectives of the pre-planning course, the preparation of learning resources in the early stage, the formulation of specific segmented learning units in the medium term, the expansion of learning in the later period, and the overall design of learning environment and activities [7]. Several stages (J. J. Liao, 2018), accordingly, students' learning can be divided into three stages: preview and understanding of course content, in-class learning, consolidation and improvement, so as to improve students' learning ability and enrich their knowledge (see Fig.1). With the emergence of new media platform and the expansion of teaching methods, the connotation of blended teaching will be enriched from narrow sense to broad sense. However, it is undeniable that the short-term online MOOC classroom and the traditional offline classroom is still the main body of the teaching model reform. The two sides go hand in hand, combining the opening of online resources with the provision of a variety of teaching opportunities, which can not only ensure the completion of teachers' teaching tasks, but also expand students' perspective and interest, and enrich students' mastery of the curriculum, improve learning efficiency and cost effectiveness.

![MOOC Flow Chart](image)

**Research Methods**

At present, most of the studies on blended teaching take the form of quantitative research. However, the criterion of obtaining sense of psychological feeling is difficult to be defined by positivism research, and the literature has not given a reliable basis for division, too. So, it is difficult to be used as a reference. From the above, through qualitative research, that is, in-depth
interviews and other forms, we can better understand the ideas of teachers and students as the main body of blended teaching, and obtain some new information that cannot be obtained by quantitative research, so that the research has a certain depth. In addition, one of the differences between Chinese and foreign universities is that the majors of Chinese college students are often the result of adjustment, not their first wish, and their sense of identity and acquisition of this major often needs to be cultivated through later understanding. At the same time, there is a situation in which some students lose their interest in learning and thus do not act. Therefore, this paper takes qualitative research, through in-depth understanding of the psychological process of college students' learning, to explore the relationship between college students' sense of acquisition and blended teaching reform and improvement measures.

**Rooted Theory**

The rooted theory is an analytical method of qualitative research, which emphasizes the promotion of the theory from the data, and explores the relationship between these concepts, and gradually forms a theoretical framework to construct the relevant social theory [8]. In the literature at home and abroad, there are too few studies related to the evaluation index of blended teaching based on college students' sense of acquisition, so after conducting specific interviews and collecting summary records, it is impossible to obtain a theoretical hypothesis of scientific authority. Therefore, after conducting specific interviews and collecting summary records, the key attributes are summarized as the evaluation indicators of the study, from which the evaluation framework is summed up and the interview information is classified.

**Semi-structured Interview**

Investigation is a research method to understand the psychological activities of the subjects indirectly through various ways [9]. This study adopts the semi-structured interview method in the survey method, which has no specific requirements for the way and sequence of questions, the way in which the interviewees answer; the way and time and place of the interview records, and can be dealt with flexibly according to the situation. According to the relevant literature, the author inspires and collates the overall outline of the interview, determines the general content and the order of the questions, and makes the necessary adjustments according to the actual situation. This time, nine persons were selected as interview subjects, in the form of telephone interview or online chat typing. The interview lasted from half an hour to two hours, and collected more than 20,000 words.

**Interview Sample**

At present, nine interviewees have been recruited in this study, and the basic information of the interviewees is as follows (Table 1).

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Gender</th>
<th>Identity</th>
<th>College</th>
<th>Grade</th>
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<tbody>
<tr>
<td>1</td>
<td>T</td>
<td>Male</td>
<td>Student</td>
<td>Logistics</td>
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<td>Student</td>
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<td>Female</td>
<td>Student</td>
<td>Marxism</td>
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<tr>
<td>4</td>
<td>Y</td>
<td>Female</td>
<td>Student</td>
<td>Law and Humanistic Society</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>X</td>
<td>Female</td>
<td>Student</td>
<td>Law and Humanistic Society</td>
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<td>6</td>
<td>B</td>
<td>Male</td>
<td>Teacher</td>
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<td>7</td>
<td>K</td>
<td>Male</td>
<td>Student</td>
<td>Energy and Power</td>
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<td>8</td>
<td>G</td>
<td>Female</td>
<td>Student</td>
<td>Law and Humanistic Society</td>
<td>2</td>
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<tr>
<td>9</td>
<td>Q</td>
<td>Female</td>
<td>Student</td>
<td>Civil Construction</td>
<td>2</td>
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There were 5 (55.6%) female and 4 (44.4%) male, including 8 students and 1 teacher, involving freshmen, sophomores and juniors with more courses. According to the *Summary of the Reform of*
Teaching Methods in the academic Affairs Office of Wuhan University of Technology in recent years, the departments of science and engineering, liberal arts in our university encourage the use of the combination of online and offline classes.

The subjects of this study come from the Institute of Logistics, Marxism, and other 7 colleges and 8 majors or disciplines. Gender, identity, major, grade can form a contrast, so the sample has a certain degree of diversity and representativeness. The interview data obtained can better reflect the development of blended teaching in our school and the relevant information about the sense of acquisition.

Interview Results

Starting from the sense of acquisition, the author preliminarily summarizes the existing problems of blended teaching into three points according to the interview data, and puts forward the corresponding solutions.

Existing Problems

The Operation of the Online System is Poor, so it is Difficult to Meet the Needs of Teachers and Students. Teacher B points out that such a platform requires a lot of energy to explore, and it also takes a lot of time to log in and reply to student discussions frequently. A number of student interviews said that the construction of online teaching platform is not perfect, such as "server loading too slow", "too many classifications is difficult to find" and other teaching hardware facilities, affecting the mood and efficiency of participating in online teaching. From the perspective of AIA, the imperfect coursework system will first restrict the opportunities for students to participate in the classroom. The efficiency of online classroom is low, and the interaction between teachers and students on this platform is almost zero [10]. Due to the difference of login time or the inconvenience of page operation design caused by work and study, teachers and students cannot achieve the purpose of network teaching to promote communication and make effective use of corner time.

The Design of Online Teaching Content is Simple and Mandatory. Offline classroom firmly occupies the main body of teaching, but in contrast, online classroom knowledge is generally simple, basic, almost only the framework of classroom teaching. After students find problems in the process of autonomous learning, the level of communication with students or teachers through the network teaching platform is relatively shallow, and the promotion of students is insufficient, which affects the sense of achievement in teaching [11]. The high repetition rate of double-line teaching content generally makes students more tired. Teaching tasks force students to watch all teaching videos regardless of priority, which often leads to the existence of "brushing" behavior, which means only the video is played and not watched, in order to obtain the viewing record of the system. Although this kind of stipulation of forcing students to absorb knowledge is understandable, it is contrary to the principle of autonomy and freedom in the way, and it is easy to cause students' rejection psychology, thus affecting the promotion of students' sense of identity, which may not be desirable in fact. At the same time, online classes are often conducted through video playback, and the video content quality of each lecturer is different, and the crude content design will also lead to the inefficiency of online teaching. As the interviewee T said, "The teacher's voice in the video is sometimes big and sometimes small. The speed of speaking is also fast and sometimes slow, which affects my listening experience." Teachers, on the other hand, said that they could not interact with students while recording the course, could not receive immediate feedback, and that their enthusiasm for lecturing will also be reduced. As a result, the expression is stiff, the speed of speech is difficult to control, while the speech is not fluent, and so on.

Teachers and Students Focus on the Traditional Classroom, while Blended Reform Hollowing out. As a strategy at the institutional level, blended learning is a strategic opportunity to participate in organizational learning, rather than a single teaching method. Most colleges and universities do not clearly define hybrid learning from the institutional level, so that it has only become a single curriculum description [12]. It is the break of this system, that is, the mismatch
between the operator's cognition and the operating system, which makes the interviewees generally think that the sense of acquisition had nothing to do with the mixed teaching reform, especially with the online classroom. Because of the strong subjective will of the interviewees, there may be exaggeration in their evaluation, which cannot be completely used as a scientific basis, but it can still be seen that because of the low efficiency of blended teaching, teachers and students generally reject the online classroom and more inclined to the traditional classroom. “MOOC is a dispensable thing, even if it does not exist, it will not affect my acquisition of knowledge, and it is not with the offline classroom like two parts of the same system, but an appendage of the offline classroom [13].”

**Improvement Measures**

**Carry on the Systematic Training to the Teachers and Students, Explain the Function of the Online Platform in Detail.** The necessary information technology training is to seek the survival path under the strong competition [14]. At present, most colleges and universities are generally equipped with professional managers for their respective network platforms, but they have not noticed the problems that teachers and students are not fully familiar with the blended teaching functions, and that the construction of online platforms is not mature. The management train of thought also needs to change the teaching way of seeking help from teachers and students, and should carry on the technical training systematically and in detail, in order to improve the quality and efficiency of teaching and learning. In fact, it is unreasonable for only a small number of technicians or teachers to be familiar with the operation of the platform. Six of the eight students interviewed said that they had never received a detailed introduction of the operation of the platform by the school or the teacher, or, "only informed of the account and password to log on to the system," the cumbersome cutton platform page makes the operation "worse". Thus, it can be seen that smooth page design is also necessary, which requires the smooth flow of user feedback channels and the active communication of customer service personnel, or that there will be no way to ask for help.

**The Content of the Online Classroom is Set up in Different Stages, and Have a Clear Distinction between Primary and Secondary.** The two classrooms cannot completely copy the other model, and each should have its own emphasis. The interviewer L thinks that the important and difficult points should be fully explained and the practical application ability of knowledge should be improved in the offline classroom, while the logic should be emphasized, the key points should be highlighted, the key points should be easily reviewed and the key points should be grasped in the online video. It is also necessary to set up learning content in online classes, such as basic articles and breakthrough articles, in order to meet the needs of students with different learning levels and interests, so as to ensure the consistency between online and offline classes. It also reflects the necessity of online classroom. At the same time, if teachers can make rational use of the means of online teaching and put some of the course contents into the online classroom for students to self-study, they can not only reduce their teaching pressure, but also expand the opportunities and ways of interacting with students in the offline classroom. Enliven the classroom atmosphere and improve the classroom efficiency. As the interviewee K said, the lack of practical opportunities makes him think that learning is meaningless. On the contrary, the application of knowledge can deepen students' understanding of their major, enhance their sense of self-identity, and is also conducive to career choice.

**Make the Double-Line Classroom Systematic and Integrated.** The online classroom in blended teaching not only provides more information and knowledge, but also increases students' learning time, which puts forward requirements for students' learning efficiency. For example, the interviewee W mentioned: "After listening to most of the content in class, at most there are some difficulties that I don't understand. I don't have the energy to read all the online lessons again, but the school has requirements. I have to watch all the online lessons once, and some of them waste my time.” this is not called a 'learning' online class. It's a ‘brush’. Therefore, the traditional offline classroom must be reformed and adjusted, compress the classroom content, re-layout, and
coordinate the distribution of online and offline teaching content. This requires the reconstruction of teaching logic and the view of time and space [15]. Teachers should adjust their roles, actively change their ideas, change the focus from one-way imparting knowledge to stimulating students' autonomous learning ability, make the blended teaching model a whole, and make the double-line classroom complement each other. Full development does not a drag on each other. Making good use of the blended classroom should enable both teachers and students to reduce academic pressure, rather than "asking for trouble".

Conclusion

Blended teaching is a new and developing teaching method in the course teaching of colleges and universities, which aims to expand the teaching form and improve the learning quality and efficiency of students through the linkage of online and offline teaching. Change passive education to active knowledge.

At present, the blended teaching reform is in full swing, and there is still a lot of room for development. Hybrid teaching should not only innovate for the sake of innovation, but also realize the localization and maneuverability of its development. Only by taking into account the experience and feelings of teachers and students and in line with educational habits can the role of blended teaching be brought into full play.

Effective blended teaching should make college students realize the pertinence and affinity of subject curriculum, which requires us to constantly ask about the value and significance of educational theory for individual growth, and consider the degree of temperament pleasure brought about by education itself.

References


