

Research on the Construction and Application of Student Process Evaluation System in Blended Learning Mode

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ABSTRACT

This paper collects relevant data through questionnaire survey, action research, interview and so on. Based on the blended learning process of College English course and the existing practical experience of colleges, the author proposes the process evaluation index and weight of students in blended learning model, and constructs the process evaluation index system of blended learning. Through a semester of teaching practice, the author has collected and analyzed relevant data to improve and optimize the process evaluation system of blended learning. After the research, the final conclusion is drawn that the construction of students' process evaluation system in the blended learning mode makes the evaluation system more scientific and comprehensive, improves students' interest in English learning and enhance the communication between teachers and students, contributes to the deep integration of information technology and curriculum, effectively guides students to improve their comprehensive quality, and encourages them to study independently, in groups and online, and improve students' English scores in an all-round way.

Keywords: *blended teaching mode, process evaluation, College English*

I. INTRODUCTION

With the rapid development of information technology, the use of information technology means to promote the reform of education and teaching so as to promote the improvement of teaching quality, has become the core issue of education information. Combining the advantages of traditional classroom learning and network platform learning, blended learning changes the role of teachers and the relationship between teachers and students in traditional teaching, so as to improve the learning method and learning effect. As the leading role of learning in the class, students are the main body of the class, and teachers, who are to guide students and solve puzzles for them, help them learn knowledge and cultivate their ability of independent learning. Therefore, blended learning has attracted more and more attention from researchers in recent years, and has become one of the popular teaching forms in colleges and universities, and been widely used in College English classes.

However, the school where the author works is a typical local applied undergraduate university, and the course evaluation method of College English is "30%* usual score +70% final score". The usual scores are mainly based on the daily attendance and written homework, and the final scores mainly evaluates the students' mastery of basic language knowledge and basic language skills. Undoubtedly, this assessment method cannot comprehensively assess students' English application ability and intercultural comprehensive ability, not to mention further stimulate their critical thinking ability, without reflecting students' mastery of this course and course performance at all. Therefore, the establishment of a reasonable and effective evaluation system for College English blended learning can not only give play to the leading role of teachers in guiding, inspiring and monitoring the teaching process, but also fully pay attention to the growth of students, their internalization of knowledge, mastery of skills and improvement of ability.

II. THEORETICAL BASIS OF RESEARCH

A. *Constructivism learning theory*

The teaching view of constructivism emphasizes that students should give full play to their individual subjective initiative. In the whole learning process, students are required to construct mathematical knowledge in their minds actively by exploring, discussing and other different ways. As a new type of learning theory, it also endows learning with new significance. First, in the view of constructivist learning theory, the learning process is a process in which learners actively construct knowledge. "Learning is a process of constructing internal mental representation. It is not a process of transferring knowledge from the outside world to memory, but a process of constructing new understanding based on existing experience by means of interaction with the outside world" (D. J. Cunnighan, 1991). Therefore, for the learning activity, it is not a process of teachers simply passing knowledge to students, nor a process of students passively receiving information, but a process in which students actively form the meaning of information in the process of interaction with the outside world based on their existing experience and knowledge. In addition, constructivist learning theory also gives students a new understanding of the knowledge they learn. That is, knowledge is no longer the accurate representation of reality that we usually think of as pictures, texts, textbooks, teachers' demonstrations and writing on the blackboard, but only a hypothesis and understanding. Students' perceptions and meanings of the world is up to their own.

B. *Situated cognition theory*

Situated cognition theory emphasizes that the design of learning should take learners as the subject, connect the concrete practice of human society with the arrangement of activities and content, and unify the development of learners, the construction of identity and the acquisition of knowledge. In general, the theory of situated cognition has a great impact on the design of teaching systems and development of learning environments, and provides a theoretical basis for the new fields of educational technology, such as virtual learning community, computer-supported collaborative learning, and the construction of information technology and curriculum integration.

III. THE CONSTRUCTION OF STUDENT PROCESS EVALUATION SYSTEM UNDER BLENDED LEARNING MODE

A. *The preliminary construction of student process evaluation in blended learning mode*

At present, there are many problems in the curriculum evaluation system of colleges and universities. The content of the assessment is one-sided, with too much emphasis on knowledge points, and evaluates memory mainly, students' intercultural ability, critical thinking ability and innovation ability less. The evaluation method is single, the examination result still occupies the considerable weight in the evaluation index, with too small or even no proportion of ability quality index.

In order to overcome the above disadvantages, College English adopts the process evaluation, which is to evaluate students' learning in the course implementation. It adopts the value orientation of equal emphasis on goal and process, and comprehensively evaluates the learning effect, process and learning attitude. According to the experience of mixed learning in the college where the course group is located in the past two years, the first-level indicators of learning evaluation are determined as learning attitude, learning process and learning effect.

Learning attitude includes one secondary index and three tertiary indexes. Attendance corresponds to students' lateness, early leave and time off; invalid learning refers to the frequency and duration of students' playing mobile phones, sleeping and chatting in class, and the frequency and duration of students browsing irrelevant websites, chatting on QQ, playing games and watching videos in the process of online learning; homework submission refers to whether students hand in homework every time, whether the submission is on time and the quality of homework, etc. The learning process consists of three secondary indicators: learning participation, use and sharing of learning resources, group learning and independent learning. The learning effect includes two secondary indexes: language ability and comprehensive ability.

B. *Index revision*

After the preliminary formulation of the evaluation indicators, in order to make the index system more concise, perfect, easy to operate and avoid repetition, the author respectively solicited the opinions of 8 experts and professional teachers inside and outside the school. There are 4 professors, 2 associate professors, 2 lecturers, and 2 experts from Zhengzhou University and Henan University of Economics and Law. Through the method of interview, the opinions of experts are

summarized as follows: First, expert teachers affirm the first-level indicators and second-level indicators, but some parts of the third-level indicators overlap and are not clear enough. For example, the independent learning ability in comprehensive ability and the secondary index of autonomous learning are repetitive and the boundary is not clear. Second, some three-level indicators are not easy to operate and difficult to quantify. For example, how to quantify the five abilities in the comprehensive ability to reflect the number of components needs to be considered.

According to the above opinions, the evaluation indicators are revised and fine-tuned as follows. The group learning participation in learning participation is deleted, because it is repeated and crossed with the second level indicator group learning; indicators involved in online learning are also cross-repeated, such as online learning participation, watching micro-classes, use of net-related resources, and use of online courses in excellent colleges, which are easy to be repeated if they are not clearly defined. It is defined as follows: online learning participation is mainly the use of THUnderClass; watching micro class mainly refers to the micro class videos before watching flipped classroom and the use of network related resources mainly refers to the network resources related to the course found by the students themselves; online courses of Excellent College refer to the use of relevant courses on the platform of Ulearning for independent learning; the index of comprehensive ability requires comprehensive assessment, which will be considered in the weight.

C. Weight definition

After the process evaluation index of students in the blended learning mode is determined, the weight of each index is assigned, that is, the weight relationship between each index and the proportion of each index in the result. According to the ranking of the importance of each indicator by experts in the previous interview with experts and the repeated discussion of the research group, the corresponding weight of each indicator is obtained through the quantitative calculation method. The specific quantitative calculation method is as follows:

For example, "invalid learning", a three-level indicator of learning attitude, is ranked by 12 experts and teachers. When it is converted to weighted value, 2 experts score 4, 4 experts score 3, 2 experts score 2, and 4 experts score 1. So the average weight score of attendance = $(2*4+4*3+2*2+4*1) / 12 = 2.3$. Then, based on all the indicators in the same dimension, find the weight of their percentage scale (leaving the decimal as necessary). Then, based on all the indicators in the same dimension, the weight of

their percentage scale is obtained (leaving the decimal as necessary). The weights of the three indexes under learning attitude are 3.1, 3 and 2.3 respectively, and the 100-scale weight of invalid learning = $(2.3*100)/(3.1+3+2.3) = 27$.

IV. APPLICATION OF PROCESS EVALUATION OF COLLEGE ENGLISH COURSE IN BLENDED LEARNING MODE

A. Implementation of the index system

According to the above evaluation indicators and weights, the course team designed corresponding evaluation tools, and selected students from 8 majors of 2018 to apply them to the practice of College English in the first semester of the 2018-2019 academic year. The evaluation tools are used to guide teachers' teaching and students' learning in practice. The evaluation indicators and corresponding evaluation tools of blended learning are applied to design evaluation nodes, collect data, summarize, sort out, process and analyze them, and adjust teaching and student learning on the one hand and optimize practical courses on the other hand according to data results.

According to the corresponding process evaluation indicators, the corresponding evaluation tools are designed, such as electronic portfolio, evaluation scale, questionnaire, individual interview, network learning statistics, phased test and final test. The electronic portfolio includes the study plan, study notes, learning gains and doubts, students' self-evaluation and personal final works; the rating scales include group rating scales (and individual job rating scales); questionnaire design is divided into pre-test and post-test, which are conducted at the beginning and end of course, so as to show students' development and change; the statistics of online learning include the length of students' logging in to Ulearning to watch micro-classes, the effective evaluation of resources, students' logging in to THUnderClass, participation in discussion and answering questions, etc.; phased test refers to phased assessment of students' knowledge and skill mastery after a period of phased learning, and the test questions are formulated according to the teaching progress. Through the implementation of these evaluation tools, the analysis and sorting of relevant data, before and after comparison, the optimization and adjustment of relevant tools, periodic adjustment and feedback can promote teachers to adjust their teaching and help students adjust their learning.

B. Data collection

The collection of research data mainly uses the pretest on-line questionnaire to survey students' basic situation, learning attitude, learning habit,

learning tendency, original knowledge and existing ability, information literacy, learning ability, comprehensive ability and other dimensions before class, and survey them with the post-test in the same dimension and make comparison at the end of the semester. Some questions in the pre-test and post-test questionnaire will be set differently according to different teaching stages. Other questions are the same questions designed to investigate the stages of development of a particular aspect, such as the length of independent learning, the tendency towards learning styles, and the development of self-assessment of comprehensive abilities. The development and changes of students are analyzed by comparing the results of pre-test and post-test questionnaires.

In the implementation process, according to the questionnaire survey, it can be roughly estimated which students have adapted to blended learning, which ones are initially adapted to it and need to be further strengthened, and which ones have not yet adapted and needs more attention and further guidance. Six students with different learning levels, learning habits and learning methods were selected for irregular interviews to collect non-linear and in-depth data, which made up for the shortcomings of questionnaire survey.

At the same time, through the statistics of the login situation, data sharing, discussion board records and the quality and quantity of Q&A of some students' learning APPs, the relevant index data is obtained for analysis. At the same time, content analysis can be adopted for some materials in the students' electronic portfolio, such as group work, students' homework and learning experience, and evaluation and analysis can be carried out for these materials to obtain relevant evaluation index data.

V. CONCLUSION

After a semester of practical research, through the data comparison of questionnaire, interview and content analysis, the results are shown as follows.

First, students' independent learning ability has been improved. Blended learning focuses on cultivating students' independent learning ability and process evaluation urges students to conduct independent learning all the time. The comparison of the survey results shows that the number of students who believe that their ability to study independently increased by 32% after a semester of teaching practice, and the length of independent study increased from an average of 32 minutes per week to 87 minutes per week. It seems that procedural evaluation can promote the improvement of students' autonomous learning ability to a certain extent.

Secondly, the learning styles get richer. Blended learning mode provides more learning methods and choices, such as students' online learning, group learning, and flipped classroom and so on. After one semester of teaching practice, 21% of the students transferred their preference from the traditional learning mode to the diversified teaching mode.

Third, students' ability of information technology has been greatly improved. The blended learning mode has higher requirements for students' information technology ability. Students need to be skilled in using online learning platforms and software. Online tests require higher typing skill, and group presentations often require PowerPoint presentations, which require basic office software skills. Over the course of a semester, the number of students with poor IT skills dropped from 72% to 63%, indicating a significant improvement in students' IT skills.

Finally, their comprehensive ability self-evaluation has been improved. In process evaluation, in addition to teachers, students are also very important evaluation subjects. Mutual evaluation and self-evaluation are both important indicators in the evaluation. Through the detailed evaluation system issued by teachers, students began to have the awareness of self-evaluation. Constant self-evaluation and mutual evaluation made them constantly reflect on their learning methods and learning effects. 23.9% of the students believed that self-evaluation had a promoting effect on their learning.

The results show that the process evaluation system of blended learning provides operational guidance for teachers on how to guide students in blended learning and how to position their own roles in learning and evaluation. It provides students with operational guidance on how to develop their abilities from passive learning and evaluation to active learning and evaluation and how to develop their abilities in a comprehensive way through blended learning and process evaluation. Therefore, in the following research, the teaching evaluation of College English blended learning can be studied from different perspectives, so as to promote the further development of College English teaching.

References

- [1] Kaye Thorne. Blended learning: how to integrate online & traditional learning [M]. London: Kogan Page Limited, 2003.
- [2] Mohammad Iqbal Bashar & Habibullah Khan(2007). E-Learning in Singapore: A Brief Assessment U21Global Working Paper, No. 003/2007.

- [3] Liu Xiumei. Construction of Classroom-based College English Assessment System in Big Data Era [J]. *Modern Educational Technology*, 2016(1). (in Chinese)
- [4] Chen Min, Yang Xianmin. Design and Implementation of Personalized Learning Evaluation System Based on Process Information in Ubiquitous Learning Environment [J]. *China Educational Technology*. 2016(06). (in Chinese)
- [5] Pang Jingwen, Zhang Yuhang, Tang Yewei. Research on the Evaluation Index of Wisdom Classroom from the Perspective of Deep Learning [J]. *Modern Educational Technology*, 2017(2). (in Chinese)
- [6] Li Yudi. The Study on the Self-Directed Learning Oriented Dynamic Formative Assessment in College English Teaching [J]. *Education Teaching Forum*, 2020 (8). (in Chinese)