

# Research on the Influencing Factors of Students' Learning Engagement under the Blended Teaching Model of College English

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**Abstract:** Under the blended teaching model of college English, students' learning engagement is influenced by many factors. This paper selects the students of Qiqihar Medical University to carry out the experiment, and draws the following conclusions: among the factors affecting learning engagement, the explanatory power of students' individual factors is large, and that of teachers is slightly lower than that of students. Environmental factors ranked third, while peer factors were almost negligible. It is suggested that student-centered teaching design should be carried out. Scientific and reasonable project task-based teaching should be carried out, and perfect network equipment and high-quality learning resource support should be provided for college students to improve the level of learning engagement under the blended teaching model of college English.

## 1. Introduction

College English blended teaching model is one of the new English teaching models in recent years. Generally speaking, under this model, students invest more time and energy than in the traditional model. However, in some cases, students' input is not enough; in some cases, students' input is very much. What are the factors that affect students' learning engagement? What are the main factors and what are the minor factors? This paper will explore the influencing factors of students' learning engagement under the blended teaching model to provide teaching reference for college English teachers.

## 2. Blended Teaching Model of College English

College English blended teaching is a new teaching mode which effectively integrates the traditional English teaching mode with Internet technology [1]. In the actual teaching process of college English course, smart classroom is an important way to realize blended teaching. In College English curriculum, the application of intelligent classroom to carry out blended teaching can effectively attract students' attention and stimulate students' interest in learning by virtue of colorful audio-visual teaching content, which plays an important role in improving the curriculum quality of college English teachers and promoting the development of college students' English level. Smart classroom plays an important role in the blended teaching mode of college English. The application of smart classroom in the blended teaching mode requires teachers to recognize students' individual differences and design interesting teaching contents according to students' learning interests. This kind of curriculum design requirements are consistent with the requirements of the concept of quality education. But the pure wisdom classroom can't take up the whole process of college English teaching. The ultimate goal of blended teaching is to assist teachers in English teaching, to show the weak links of students in the process of learning English for teachers, so as to achieve accurate teaching and interesting teaching, and to promote the improvement of college students' English learning quality.

The implementation of blended teaching, through the reversal of the learning process, can promote knowledge internalization many times [2]. In the pre class stage, students can learn autonomously by using relevant information and learning platform according to their own actual situation, and communicate with teachers and peers asynchronously to preliminarily understand and master

knowledge, which can promote students' Internalization of knowledge for the first time. In the class stage, teachers organize students to carry out practical activities such as discussion, cooperation and exploration, so as to guide students to actively share knowledge and simulate real situations. It is intended to promote students' second internalization of knowledge through application, achievement display and evaluation, etc. At the end of class, students will reflect, summarize and evaluate, etc., so as to deepen their understanding of knowledge and promote students' third internalization of knowledge. Blended teaching provides strong support for improving students' interest and enthusiasm in learning and enhancing the interaction between teachers and students. Therefore, to explore how to make full use of blended teaching to further improve the level of students' learning engagement is one of the effective ways to improve students' learning effect.

### **3. Concept and Calculation of Learning Engagement**

The concept of learning engagement was first proposed by American educational psychologist Tyler. It describes the time students spend in learning and the impact on learning. Later, pace used learning engagement to express students' learning time and learning quality. Learning engagement is the state of students' active participation in learning, which includes three dimensions: relatively independent, stable and interactive cognitive engagement, emotional engagement and behavioral engagement.

Based on the analysis of the characteristics and the actual situation of blended English, the scale designed with reference to the above scale factors includes three dimensions: behavior, cognition and emotion. The behavior level includes autonomous learning, cooperative learning, teacher-student interaction and peer interaction; the cognitive level includes metacognitive strategies, deep learning strategies and reflective learning; the emotional level includes learning enthusiasm and interpersonal feelings. According to the above dimensions, referring to the relevant scales of the existing research, this paper makes a questionnaire on learning engagement of college students in blended English, which is used to investigate the level of learning engagement of college students in blended English. A total of 26 questions were designed, and the distribution of each dimension is shown in Table 4. The questionnaire is the topic setting from three dimensions of behavior, cognition and emotion. The questionnaire uses Likert 5-level scale, and divides the questions into five levels: very disagree, disagree, general, agree, very agree. The scores are 1, 2, 3, 4, 5 respectively. The higher the score is, the higher the level of learning engagement is. Before the formal distribution of the questionnaire, Class A of medical imaging and Class 1-4B2 of clinical medicine, Grade 2020 were selected for the test. A total of 141 questionnaires were distributed and 141 were recovered, with a recovery rate of 100%.

### **4. Carding of Influencing Factors of Students' Learning Engagement**

Learning engagement is influenced by many factors, including students' interest, motivation, ability base and other factors, as well as external educational factors such as teachers, peers, learning resources and environment [3]. According to the students' own factors and external educational factors that affect learning engagement, combined with the learning conditions and characteristics of College English blended teaching, the questionnaire is designed and the data is analyzed. A large number of studies have shown that students' high level of learning input can play an important role in promoting students' learning gains and individual development. Learning engagement is a kind of positive, stable and continuous behavioral, cognitive and emotional investment of students for their own learning and future development, which reflects the level of students' initiative in learning activities. Whether students participate in teaching activities or practical activities, the time and energy invested by students are significantly related to the learning effect. A higher level of learning investment can stimulate and maintain students' learning motivation and promote students' active and effective learning. With the development of research on learning engagement, learning engagement is regarded as an important indicator to measure the quality of higher education. Starting from the perspective of learning, improving the quality and efficiency of students' learning is the core idea and

value orientation behind the investigation and evaluation tool of students' learning engagement. In order to improve the quality of classroom teaching and enhance the level of students' learning engagement, it is urgent to systematically explore the influencing factors and mechanism of students' learning engagement. In this study, dozens of influencing factors were combined and deleted. After several rounds of discussion and revision, we have finally determined the main factors that affect college students' learning engagement in blended English, which mainly include: individual factors, teacher factors, peer factors and environmental factors [4].

## **5. Experimental Study on Influencing Factors**

### **5.1 Selection of Subjects**

In this study, Class A of medical imaging and Class 1-4B2 of clinical medicine, Grade 2020 in Qiqihar Medical University were selected as the research objects, with a total of 141 students. Before participating in this experiment, the students have learned the same basic courses, and they are basically familiar with the use of blended Teaching and learning platform. The two classes are taught by the same teacher. The two classes have high homogeneity, and can be used as experimental objects. After the implementation of the teaching plan (the one year), the questionnaire of learning engagement was issued. At the same time, this study also uses classroom observation and interview methods to collect data in the process of students' learning, in order to comprehensively analyze and understand students' learning engagement.

### **5.2 Establishment of Regression Model**

We make regression analysis on the relationship between dependent variables and independent variables. Before entering the regression equation, we need to turn the category variables into dummy variables. The antecedent factors of college Students' individual factors mainly refer to gender, which is the category variable, with female college students as the reference group; The factors of course perceived difficulty and information technology ability are continuous variables, and the higher the score is, the greater the course perceived difficulty or the better the information technology ability is; the factors of active learning include learning motivation, the duration of serious online learning and the enthusiasm of participating in activities, which are continuous variables, and the higher the score is, the better the learning initiative is. Among the external factors, the learning environment mainly refers to the current residence of college students, which is a category variable, divided into urban and rural areas, with rural areas as the reference; The equipment condition mainly refers to the equipment and network support of college students to carry out online learning, which is a category variable. It can be divided into four situations: network with computer and mobile phone, network without computer with mobile phone, network without mobile phone with sufficient flow, network without mobile phone with insufficient flow; Teachers' factors and online teaching activity factors mainly refer to the seriousness of teachers' teaching attitude, the rigor of teaching activity organization, the duration of online teaching, homework arrangement, and the overall satisfaction of teaching. Among them, the seriousness of teachers' teaching attitude, the rigor of teaching activity organization, and the duration of online teaching are continuous variables. The higher the score is, the higher the corresponding teaching effect of teachers is The better the learning attitude, the stronger the teaching organization ability, and the longer the online teaching time; the assignment arrangement is a category variable, which is divided into assignment and feedback in time and assignment but feedback not in time, with assignment but feedback not in time as the reference; the overall satisfaction of online teaching is a continuous variable, and the higher the score, the higher the satisfaction of college students to the overall situation of online teaching.

### **5.3 Analysis of Influencing Factors**

Stepwise multiple regression analysis was used. All the independent variables were included in the regression model. The significance of each influencing factor was tested, and the variables that made little contribution to the model and did not reach the significant level were eliminated. SPSS

25.0 software is used to process the data, which is consistent with the expected results. Among the factors affecting learning engagement, the explanatory power of students' individual factors is large, and that of teachers is slightly lower than that of students. Environmental factors ranked third, while peer factors were almost negligible. Environmental factors have great influence, including learning resources, learning platform, technical support and so on.

#### **5.4 Enlightenment and Suggestions**

In the classroom of college English blended teaching, students carry out autonomous learning before class, carry out extensive cooperative learning inside and outside class, and actively participate in various learning activities such as problem discussion, achievement display and evaluation in class. In the process of active, extensive and deep participation in the above activities, students develop various abilities, promote learning gains, and improve the level of learning engagement. It proves that the mixed teaching mode is effective. The rich interactive activities and diversified learning ways in blended teaching can effectively support teachers to guide students to carry out autonomous learning, cooperative learning, question answering and discussion, greatly increase the opportunities of teacher-student interaction and student interaction, and play a significant role in improving the level of learning engagement of college students in the aspects of behavior, cognition and emotion. When there is a clear learning task, college students can better use their spare time for autonomous learning, improve the level of online learning investment at the same time, improve their autonomous learning ability. Teachers should encourage college students to carry out inquiry learning and discussion learning based on project tasks, arrange reasonable project tasks for them, make them actively carry out autonomous learning and online collaborative learning with their peers. Teachers should give continuous attention, strong support and timely feedback to the implementation of the project tasks, so that college students can maintain a strong sense of social existence and learning achievement, and improve their learning enthusiasm and learning input level. Teachers should encourage and support college students to independently plan the time ratio before, during and after class according to their learning tasks, as well as the coordination and arrangement of various school tasks, so as to improve their autonomous learning ability and innovation ability.

#### **6. Conclusion**

Compared with the traditional teaching, the blended teaching of college English is more conducive to the development of students' subjectivity, and students' interactive behavior is more rich, in-depth and efficient. At the same time, students have more emotional input, and their behavior participation is more active. This study focuses on three aspects: Students' behavioral input, cognitive input and emotional input. The results show that blended teaching can play a significant role in improving the level of college students' learning engagement.

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