

Influence of Online Learning Attitude in the Blended Teaching Model on the Final Grades

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The combination of online teaching and traditional offline teaching can maximize the advantages of both. Based on the blended teaching of *English Reading* course, 39 students were selected as the research subjects to study the relationship between their online learning attitudes and their grades in the final examination. Judged from the number of times for each student to download teaching resources, the number of assignments submitted online, and the quality of the submitted assignments, each student's attitude toward online learning was examined comprehensively, and a correlation analysis was conducted through SPSS Statistics 21.0 to explore the influence of online learning attitude on English reading performance. Through data collection and analysis of the online learning attitudes over a 16-week period, a significant positive correlation was found between the online learning attitudes and the English reading grades, indicating that the online learning attitude in the blended learning model plays a crucial role in improving the English reading skill, and students should maintain a positive attitude toward online teaching in blended learning.

Keywords: blended teaching model, online learning attitude, correlation analysis, final grade of *English Reading*

1. Background of the Study

Under the impact of E-learning, the traditional education model has undergone tremendous change. Many scholars and teachers hope that it can bring about reforms to traditional teaching models and even replace them. In China, at the beginning of the 21st century, He Kekang (2004) proposed the concept of blended teaching model. In the network information era, the traditional cramming method of teaching can no longer effectively stimulate students' interest in learning and mobilize students' initiative and enthusiasm in study. However, the online teaching which provides students with rich multimedia resources lacks the in-depth participation of both teachers and students in the classroom. This explains the necessity to combine the online teaching with the offline teaching.

For learners in non-English speaking countries, English reading is not only an important channel to master and expand vocabulary, but also an effective way to consolidate language knowledge, and advance language

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skills. Based on the above background, it is worthwhile to study the relationship between online learning attitude and final grade.

2. A Review of Related Researches

After more than 20 years of development, the blended teaching mode has shown a new boom under the current concept of “Internet + education”. There is a general consensus among researchers, pedagogical experimenters, governments and educational institutions: Blended learning will become the regular teaching model in the future. The blended teaching model is to combine the advantages of traditional learning methods with the advantages of E-learning. That is to say, it is necessary to give full play to the leading role of teachers in guiding, inspiring, and monitoring the teaching process. In the meantime, it can fully reflect the initiative of students who are taken as the main body of the learning process. With the continuous development of blended teaching, it is no longer a combination of simple learning methods, but an organic integration of online learning, traditional learning, mobile learning and offline learning. Meanwhile, it brings a teaching reform which is changing the current teaching situation of China.

At present, in the field of blended teaching, the most influential theoretical framework is the Community of Inquiry Model proposed by Garrison, Anderson and Archer (2001). Based on their many years of blended teaching practice at Athabasca University in Canada, three key elements of blended teaching—social presence, teaching presence, and cognitive presence were proposed. Effective learning occurs only when all the three senses of presence are at high levels. After 2007, with the development of research and practice, the definition of blended teaching gradually became clear: the Sloan Alliance updated the definition of blended teaching, clarifying that only “30%-79% of teaching content adopts online teaching” can be called blended teaching. Means (2013) and others further defined it as “more than 25% of the teaching content included in the assessment part adopts online teaching”. Yen and Lee (2011) took blended teaching as a “fundamental change and redesign of the teaching model” and proposed three characteristics of blended teaching: (1) Shifting from teacher-centered to student-centered education; (2) The interaction between students, students and teachers, students and content, students and external resources; (3) Adopting an evaluation mechanism combining formative evaluation and summative evaluation. After 2013, the concept of blended teaching has also undergone some new developments. Goodyear (2019) emphasized that the so-called blend is not only a blend of face-to-face teaching and online teaching but also a blend of teaching and tutoring methods in a “student-centered” learning environment.

At present, the relationship between learning attitude and comprehensive performance has been studied by many scholars. Wang Aiping and Che Hongsheng (2005) point out that there is a significant correlation between learning attitude and final grade, and learning attitude indirectly affects academic performance. Sun Weisheng (2003) discovers that learning attitude is crucial to whether learning activities can be carried out smoothly and whether a good academic performance can be achieved. They think that stimulating and cultivating students’ strong interest in learning is the main psychological factor that constitutes students’ positive learning attitude. Wang Yang (2017) and other scholars find that some vocational students who have a negative attitude towards their studies do not experience a sense of achievement or lack of efficacy in their studies, and then lack interest in learning. This negative attitude towards learning directly leads to a decline in academic performance.

It is clear that blended teaching model has gradually attracted the attention of more and more researchers. The number of journal papers studying the blended teaching is increasing year by year, but most of them only concern with the model itself while few are empirical studies.

3. Research Design

Online learning attitude refers to a learner's tendency to respond to learning on the online platform, which is an internal state acquired during learning activities, including the degree of his awareness of the learning goals, his emotional experience during the learning process, and his persistence in learning activities. For the convenience of statistics, in this study, the attitude towards online learning is examined from three aspects: the number of times to download online resources provided by the teacher, the number of times to submit assignments online, and the quality of these assignments submitted. In this study, to ensure the scientificity and reliability of the research results, the final grade refers to the score got on the paper version of the final examination.

The three aspects of online learning attitude were measured in this way: Attitude toward download resources online was measured by counting the number of times for each student to download various learning resources posted by the teacher in one semester. Attitude toward submitting assignments online was measured by counting the number of times for each student to submit various assignments. The quality of online assignments was measured by the average score of both the subjective and objective assignments submitted online.

The research subjects are 39 university students enrolled in 2022. Their *English Reading* course which lasted for 16 weeks was instructed through blended teaching.

4. Data Collection

In this empirical study, the selected online learning platform is the WeChat mini-program "Class Butler", where the teacher posts tasks such as class check-in, learning resources, and assignments. Each student's learning data can be found visually on this platform. All the data in this study came from this platform. For the quality of assignments online, the assignments were divided into objective and subjective ones. Subjective assignments were evaluated by the number of "red flower" (the full score is 4 flowers), and objective assignments were evaluated by the grade (the full score is 100). The number of red flowers were given by the teacher, while the grades were given automatically by the mini-program "Class Butler".

In one semester, a total of ten learning resources were released, and 35 of the 39 students which occupied 89.7% download all the learning resources. A total of 18 assignments were released during this semester, and the highest number of submitting assignments online was 18 while the lowest was 9. Those who submitted more than 15 times accounted for the majority. For the number of "red flower", the average number was 2.3, indicating that the students' learning ability is still relatively good. The average score for students to get in the objective assignments is 94.95. The above three aspects of data show that generally speaking the 39 students have a positive attitude towards online teaching.

5. Correlation Analysis

Table 1

Data Description of the Online Learning Attitude

	Minimum	Maximum	Average	Standard deviation
Number of times to download online resources	5	10	9.62	1.269
Number of times to submit assignments online	9	18	16.59	1.929
Quality of assignments (average score of both subjective and objective assignments while multiplying the number of red flowers by 25)	62.75	85	76.58	5.65

As can be seen from Table 1, the number of times for students to download online teaching resources are between 5 and 10. The average number of times to download is 9.62. The times for students to submit homework online are between 9 and 18, and the average time of submitting is 16.59. The scores for assignments submitted including both subjective and objective ones are between 62.75 and 85, and the average score is 76.58.

Pearson correlation coefficient method was adopted to analyze the correlation between online learning attitude and the final grade in this study. When the correlation coefficient R is positive, it indicates a positive correlation between the two variables. When the correlation coefficient R is negative, it indicates a negative correlation between the two variables. Usually, the closer the correlation coefficient R is to 1 or -1, the stronger the correlation between the two variables. If the data of $\text{sigs} > 0.05$, the difference is not significant, indicating no significant correlation. If the data of $\text{sigs} < 0.05$, the difference is significant, indicating a strong correlation.

Table 2

Correlation between Number of Times to Download Online Resources and Final Grade

Number of times to download resources	Pearson Correlation	1
	Significance (two-tailed)	
Final grade	Pearson Correlation	.070
	Significance (two-tailed)	.672

As can be seen from Table 2, the correlation coefficient $R = 0.070$ indicates no correlation between the number of times to download online resources and final grade. It is easy to understand because every student has to download the teaching resources, otherwise he or she cannot continue the subsequent learning.

Table 3

Correlation between Number of Times to Submit Assignments Online and Final Grade

number of times to submit assignments online	Pearson Correlation	1
	Significance (two-tailed)	
final exam grades	Pearson Correlation	.441**
	Significance (two-tailed)	.005

According to Table 3, the correlation coefficient $R = 0.441$ indicates a positive correlation between the number of times to submit assignments online and the final grade, while the sigs is 0.005 which is much smaller than 0.05. This shows that the more actively students submit homework, the more accurately they grasp the knowledge, and therefore the more ideal their final exam scores will be.

Table 4

Correlation between Quality of Assignments Submitted and Final Grade

Assignments' quality online	Pearson Correlation	1
	Significance (two-tailed)	
Final exam grades	Pearson Correlation	.321**
	Significance (two-tailed)	.046

The quality of students' assignments is calculated by average score got in objective and subjective assignments. The score of subjective assignments is converted from the number of "red flowers". The converted score is calculated by multiplying the number of "red flowers" by 25, because the full score is 4 red flowers. Then the average score of both subjective and objective assignments for each student is calculated. As it is shown in table 4 that the correlation coefficient $R = 0.321$, while the significance (two-tailed) is 0.046 which is smaller than 0.05. This indicates a positive correlation between the quality of online assignment submission and the final grade. This coefficient number indicates that if students have carefully completed the assignments assigned by the teacher each time, in the process of completing the assignments they can consolidate and internalize what they have learned. After a semester, they are able to grasp the knowledge points in time, so they will be leisurely when taking the final test and their final grades will naturally be higher.

6. Conclusion

There are some findings in this study, and also some suggestions for teachers, students and education system.

First of all, the online learning attitude of a student can positively influence his or her performance in the final examination in the blended teaching model. According to the grades on the final exam paper, these students who ranked in the top third of the grades had a more positive attitude towards online learning in all three aspects. On the contrary, most of the students who ranked lower in grades had a more negative attitude towards online learning in three aspects. Therefore, students with a better online learning attitude tend to score higher in the final examination. In addition, there is no correlation between the number of times for students to download online resources and their final grades, because downloading learning resources is the most basic learning attitude of students, and almost every student downloaded every teaching resource.

Secondly, the reading proficiency of students are effectively improved by the blended teaching model. Compared with the proficiency of students in the previous years who were taught through traditional teaching, the instructors said, that of the students under the blended teaching are superior. As opposed to traditional classroom teaching, blended teaching enables students to get more resources and become more active in English learning.

Thirdly, the learning autonomy of students in English reading is fostered by the blended teaching model. With the help of blended teaching, students started to be interested in reading as well as learning. From passive learning to active learning, students truly become the masters of learning because they are gradually able to be responsible for their centered roles in learning.

Fourthly, teachers should strive to achieve the effectiveness of teaching and enable students to learn effectively. Teachers need to know about students' learning habits and provide teaching resources which are

targeted to meet students' individual needs. In addition, teachers should adopt innovative learning models to make teaching more effective and beneficial to students.

Fifthly, students are the dominant part of the education, and the teacher is only the guide and facilitator. Therefore, in blended teaching, students should actively participate in class learning and learn independently, including actively answering the teacher's questions and actively completing various assignments. It is discovered in this study that there is a strong correlation between the quality of submitted assignments and final grade. Test scores are also a reflection of learning ability. Hence, students can greatly improve their learning ability and test scores by actively participating in class, effectively utilizing learning resources, and carefully completing assignments.

Finally, a reliable operating system should be included in a good teaching system, including stable running speed, smooth web page opening process, innovative page design, and enough humanized experience. Moreover, various effective features should be included in a teaching platform, such as smooth live streaming. Interactive functions (such as raising hands and signing in), communication functions (such as group topic discussions), testing functions (such as post-class exercises), and common tools for online teaching (such as exam papers and learning data analysis) need to be included there in the online platform. There is also a need for personalized experience. Depending on the student's learning situation, student-oriented learning is generated through the use of big data and artificial intelligence technology. It generates personalized learning advice for students, establishes a personal learning database, discovers students' blind spots of knowledge, stimulates students' motivation to learn, helps improve students' independent learning ability, and increases the completion rate of online learning.

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