

# Research on the Current Situation of Online and Offline Blended Teaching in Colleges and Universities - Taking the Major of Interior Design of Architecture at G University, a Vocational University in Zhejiang Province, as an Example

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## Abstract:

As the Internet + teaching pattern is widely applied, online and offline blended teaching has been accepted by more colleges and universities. The author of the present study conducted a questionnaire survey on the major of interior design of architecture at G University, a vocational university in Zhejiang Province, to investigate the current situation of online and offline blended teaching and promote the reform of this teaching model. The results show that blended teaching is beneficial for student outcomes but has some drawbacks, such as poor interaction, insufficient restraints on students, knowledge not profound enough, teachers' failure to answer after-class questions in a timely manner, and delayed assignment submission and feedback. Therefore, the author thinks that a good instructional design is pivotal for the major of interior design of architecture, which can ensure a reasonable number and time of courses that are offered via blended teaching, abundant online learning resources, and timely feedback and assignment submission..

## Keywords:

Blended Teaching, Questionnaire Survey, Online and Offline, Learner Outcome

## 1. Research Background of Online and Offline Blended Teaching

As the Internet + teaching pattern and We-media develop, the online and offline blended teaching model has been greatly promoted, especially with the support of the Ministry of Education and provincial and municipal education departments. The earliest online teaching originated from online demonstration classes. However, as these classes taught through simple methods emphasized imparting knowledge and did not provide opportunities for teachers and students to interact with each other, this

online teaching model was not effectively popularized. It is MOOC that has promoted China's online teaching reform, and in recent years, online education platforms, such as Zhihuishu, Xuexitong, and Yuketang, have sprung up.

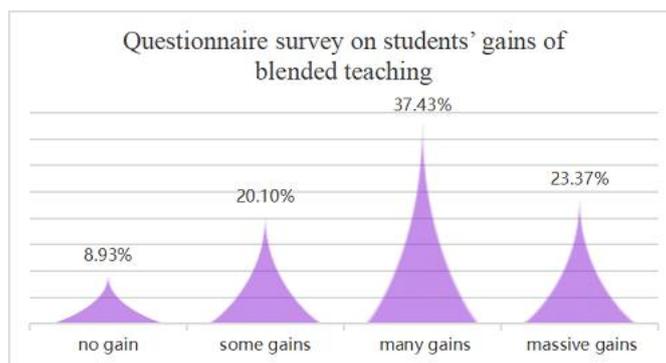
The booming teaching skills competitions at national and provincial levels have driven a large number of universities and teachers to explore online and offline blended teaching. Almost all award-winning teachers have adopted blended teaching and intelligent teaching equipment. Practice has demonstrated that online and offline blended teaching can quickly improve the efficiency of teaching and learning. However, online platforms cause much inconvenience to teachers and students while providing technical support for intelligent online and offline blended teaching and an efficient teaching environment. For example, courses are offered on different platforms, and students struggle to juggle with the platforms and passwords. For teachers, not a single platform is impeccable for uploading and downloading teaching resources as well as implementing blended teaching, but multi-platform operation causes confusion and inevitably stresses teachers.

The questionnaire platform Wenjuanxing was used to conduct a survey on online teaching platforms commonly used by teachers and students specializing in interior design of architecture at G University, a vocational university in Zhejiang Province, China. 800 questionnaires were distributed, and 689 valid ones were collected, with a return rate of 86.1%. The questionnaires were further verified, and the data collected had good reliability. Data on various aspects, such as the advantages and disadvantages of the teaching platform, the use of the platform, how often the students study, and the number of classes offered in a week, were analyzed, and solutions were proposed to the current situation of online teaching, providing theoretical and data support for the deepening of the reform of online and offline blended teaching reform for design-related majors.

## **2. Research and Analysis of Online and Offline Blended Teaching**

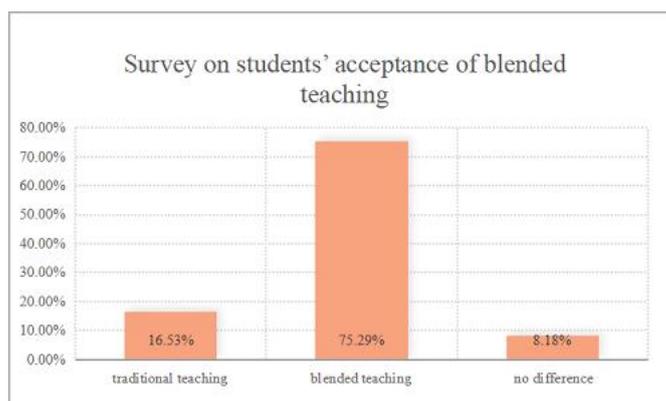
### ***2.1. Analysis of the Effectiveness of Online and Offline Blended Teaching***

It has become an inevitable trend to adopt approaches focused on students' needs and driven by digital application to continuously promote teaching reform in colleges and universities. This study used the questionnaire platform Wenjuanxing and conducted a survey on students specializing in interior design of architecture at G University to investigate and analyze the effectiveness of online and offline blended teaching and students' gains. There were four options in this item of the 100-score questionnaire: no gain (negative score), some gains (60-70 scores), many gains (80-90 scores), and massive gains (90-100 scores). Specifically, "no gain" indicates that students feel uncomfortable during the learning process and show resistance. In such a context, the blended model, compared with traditional teaching methods, hinders students' growth and achievements, so it receives a negative score. According to Figure 1, most students considered blended teaching beneficial, and only 8.93% chose the option of "no gain". In addition, 20.13% of the students chose "some gains", and those who thought the blended model is beneficial or very beneficial accounted for 60.8%. 29.06% thought that they had gained nothing or little from the teaching model, which suggests that online and offline blended teaching is not welcomed by everyone. Therefore, it can be concluded that there are still some problems during the implementation despite the good results achieved.



**Figure 1.** Questionnaire survey on students' gains of blended teaching.

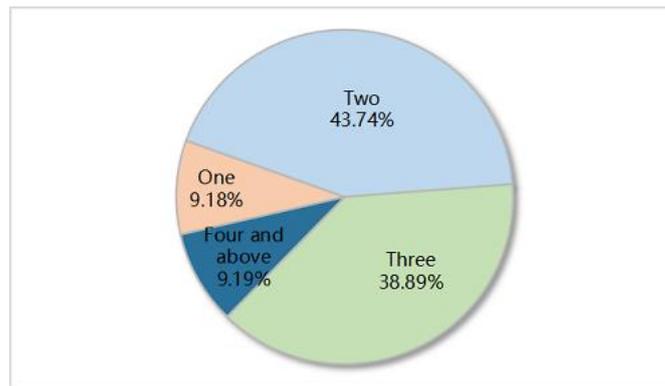
The survey investigated the students' acceptance of blended teaching. There were three options: traditional teaching, blended teaching, and no difference. The results showed that more than 75% of the students approved of online and offline blended teaching, and 16.53% chose the traditional teaching model as they were accustomed to it. Only 8.18% thought there was no difference between the two. As shown in Figure 2, most students accept the implementation of online and offline blended teaching, and this model can boost students' interest and improve their efficiency. Traditional teaching methods also have some merits, so it is necessary to strike a balance between the two.



**Figure 2.** Questionnaire survey on students' acceptance of blended teaching.

## 2.2. Analysis of the Number of Courses Offered via Blended Teaching

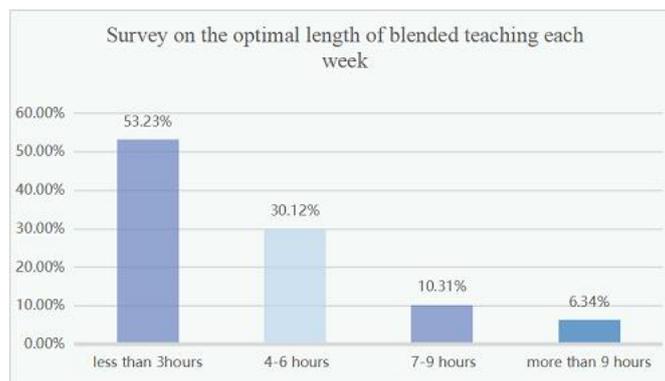
The author of the present paper designed an item to collect students' comments on the number of courses offered via blended teaching to determine reasonable numbers of online and offline classes. According to the results, the number of courses offered via blended teaching should be appropriate. An exceedingly small number impedes students' motivation, while an unduly large number overwhelms students and thus reduces motivation and teaching effects. Over 82% of the students considered it reasonable to take two to three courses offered via blended teaching each semester, as shown in Figure 3. The author thinks it important to rank all the courses according to their priority levels and carefully consider the number of courses when formulating an instructional program. For example, two to three core courses and compulsory courses of a major can be prioritized for blended teaching during one semester. Two, no less than three, courses offered via blended teaching can help ensure teaching effects and achieve optimal effectiveness.



*Figure 3. Questionnaire data on the number of courses offered via blended teaching.*

### **2.3 Analysis of the Time Online of Blended Teaching**

The time spent on online learning directly affects students' learning efficiency and sense of fulfillment. A short time online means a low utilization rate of blended teaching's online resources, which undermines the advantage of online learning; a long time online forms a long virtual teaching mode, which is likely to exhaust the students and affect teaching effects and student outcomes. Therefore, reasonable time spent online is an important baton that promotes both teaching and learning. To find the answer, the author designed an item in the questionnaire to collect opinions on the optimal online time each week of blended teaching from students majoring in interior design of architecture, with four options—less than 3 hours, 4-6 hours, 7-9 hours, and more than 9 hours. According to the results shown in Figure 4, most students accepted 3-5 hours a week of online learning. Specifically, 53.23% considered 3 hours to be the best. Therefore, the author thinks that online learning should be no longer than 3 hours a week. Each session lasts 45 minutes. If two courses are offered via the blended model each week, and the optimal length of online teaching for each course is 90 minutes, no more than two sessions of each course should be offered online. (Figure 4)

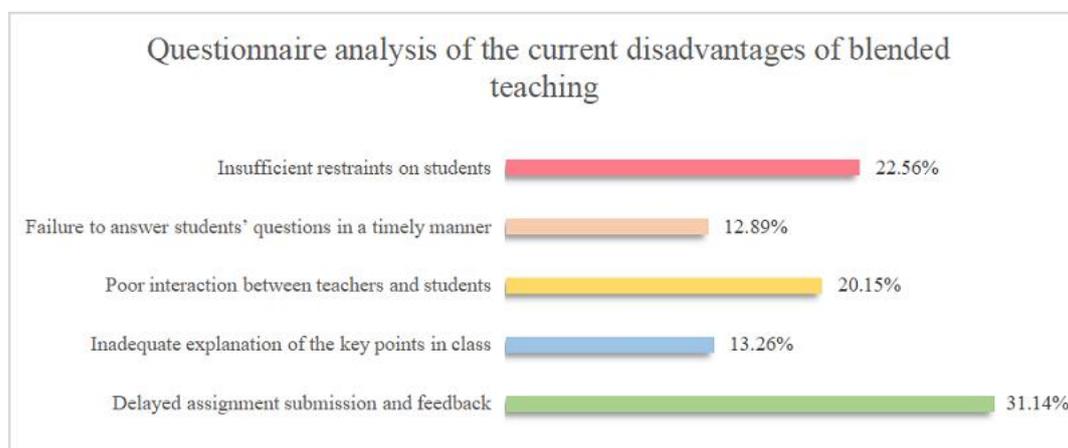


*Figure 4. Survey on the optimal length of blended teaching each week.*

## **3. Advantages and Disadvantages of Online and Offline Blended Teaching**

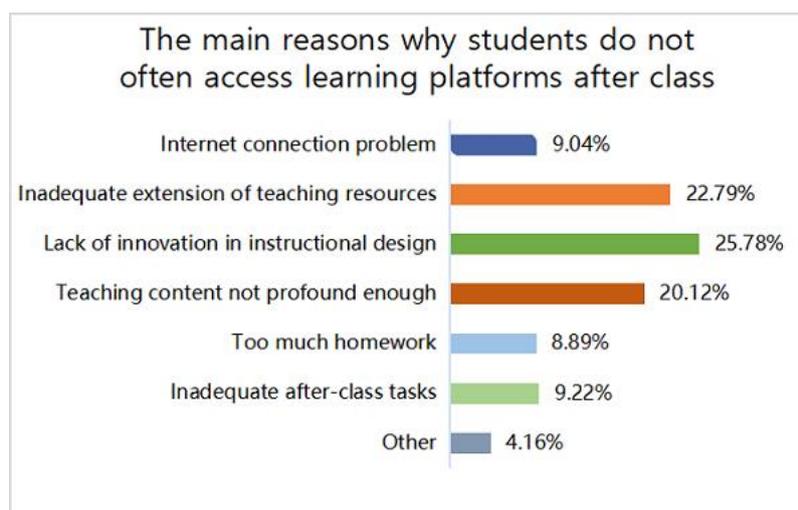
The questionnaire survey investigated the current situation of online learning and the shortcomings of online courses of blended teaching to have a comprehensive understanding of the merits and demerits of this teaching model. Figure 5 shows the data analysis, suggesting that the online part of blended teaching, compared with

traditional offline courses, has some drawbacks, such as delayed feedback on online assignments and problems, insufficient restraints in class, and poor interaction between teachers and students. Although online classes are not limited by space and time, they fail to enable face-to-face interaction. Teachers talk to computers and do not have enough interaction or eye contact with students. Furthermore, they cannot answer students' questions in a timely manner or notice absent-minded students. As a result, some students do not hand in their assignments on time; some of their questions cannot be answered; some of them miss some important parts of the class due to absent-mindedness. Therefore, it is necessary to change the current situation in the optimization and reform of online and offline blended teaching. For example, platforms can develop functions such as a reminder button and Q&A session to address the poor interaction between teachers and students. In addition, it is worth noting that the online courses of blended teaching are more than simply watching live streaming or teaching videos before doing some tests. The essence is that teachers gradually guide students to form good learning habits or teaching scenarios before, during, and after class. Thus, blended teaching has higher requirements for extending online resource reserves and teaching skills. In addition, in terms of the insufficient restraints on students in blended teaching, teachers should use the sign-in function of online teaching platforms to record students' learning attitudes, establish a system of rewards and punishments, strengthen the supervision of students while assigning corresponding tasks, and monitor the effects and quality of online courses. Moreover, to address inadequate explanation of the key points in class, the author holds that teachers should summarize the key points of each course, guide students with different levels of academic attainment in different ways, and organically integrate some ideological and political elements into the teaching of classic cases through pictures, text, or videos, in a bid to explain complicated problems in simple ways and help students have a profound understanding of the key points via online learning. (Figure 5)



**Figure 5.** Questionnaire analysis of the current disadvantages of blended teaching.

In addition, a survey was conducted to explore why students did not often use online teaching resources after class, with the quality course Decoration Design for Residential Housing offered on the Zhejiang Province quality online platform and the course Furnishing Design and Matching offered via blended teaching on the Zhihuishu platform as examples. The aim was to have a deep understanding students' needs in blended learning and promote the reform of blended learning. The results of the questionnaire survey are shown in Figure 6.



**Figure 6.** *The main reasons why students do not often access learning platforms after class.*

Figure 6 shows that the main reasons why students of blended teaching do not often access learning platforms after class include a lack of innovation in instructional design (accounting for the largest proportion of 25.78%), teaching content not profound enough, the inadequate extension of teaching resources (account for the second largest proportion of 22.79%), etc. Therefore, innovation in instructional design should be a priority in the development of online resources for the courses offered via blended teaching. For example, platforms can invite professional video production teams to optimize and update quality video teaching resources. Meanwhile, in terms of inadequate online teaching resources, teachers should extend what is taught in class in a more exploratory and instructive way, strengthen the instruction after class, and broaden students' horizons.

#### **4. Conclusions**

Although online and offline blended teaching has made some achievements in improving teaching quality, it still has some shortcomings, such as unremarkable instructional design, insufficient restraints on students, inadequate explanation of knowledge, and the failure to answer students' questions in a timely manner. Therefore, the author suggests that 2-3 courses be offered via blended teaching each semester for each class, with online learning no longer than 3 hours each week. In addition, blended teaching should be implemented for core courses or compulsory courses first, deepening stepwise and developing effective cohesion of knowledge. Courses offered via blended teaching should be evenly distributed in different semesters. Moreover, online teaching resources should be optimized to guide students to make the most of after-class time to acquire more knowledge and broaden their horizons.

#### **Conflicts of Interest**

The author declares that there is no conflict of interest regarding the publication of this article.

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