

# Current Situation and Thinking of Online Teaching for College Students under the Background of Informatization

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## Abstract

**With the rapid development of new technologies such as informatization, big data, artificial intelligence, cloud computing, and the outbreak of the new crown epidemic, online education has experienced explosive growth. By summarizing the progress over a period of time, this paper uses the questionnaire survey method to initially understand the various indicators before and after the online education of students, and conduct statistical analysis. It is found that even if the online system is mastered, offline education is still irreplaceable. In education work, attention should be paid to the development of teacher-student information quality, and online education and offline education should be coordinated.**

## Keywords

**Informatization; College Students; Data Analysis.**

## 1. Introduction

With the rapid development of informatization, big data, cloud computing and the outbreak of the new coronavirus (COVID-19), informatization changes have taken place in the global industrial chain, which has had a great impact on all aspects of life. This paper investigated the online education experience of students from Fuzhou University of International Studies and Trade, and followed them for three months. Combined with the author's teaching experience, this paper discussed the current situation and countermeasures of university online teaching under the background of Informatization and the new crown epidemic.

## 2. Research Method

This study used a literature review to find relevant indicators of students' online learning and produced questionnaires that were distributed one week after the online course started and three months after the online course started. A total of 1200 questionnaires were distributed and 1071 valid questionnaires were recovered (both questionnaires returned were valid).

The research data was analyzed using SPSS 25, and the qualitative data was expressed as the number of cases (percentage), and the Pearson chi-square test or adjusted chi-square test was used to compare the two groups. Quantitative data is expressed as mean±standard deviation, and comparison between the two groups is made using T test or T prime test.

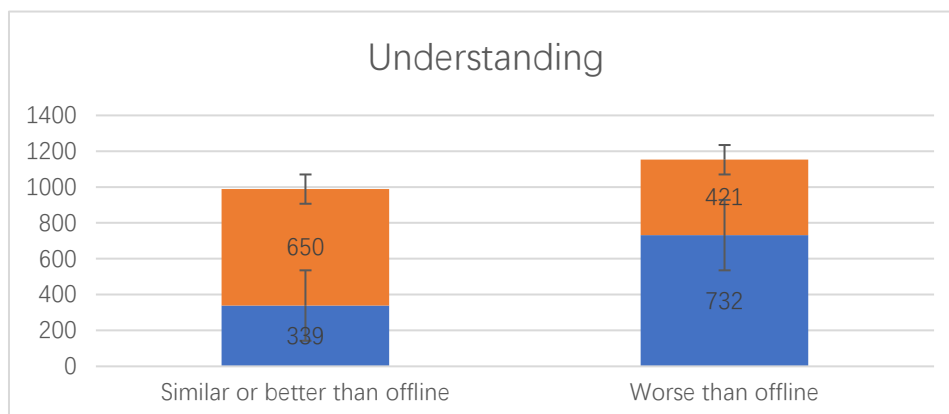
## 3. Research Results

As shown in Table 1 and Figure (1-3): In terms of learning comprehension, as shown in Figure 1, after three months of online learning, the proportion of people who believe that online teaching is better than or equivalent to offline courses has risen from 31.6% to 60.7%, showing a statistical difference. As shown in Figure 2, although the self-evaluation of completion of homework after class has increased slightly (from 48.6% to 55.18%), it is still not much different from offline courses. What is interesting is that, as shown in Figure 3, after three

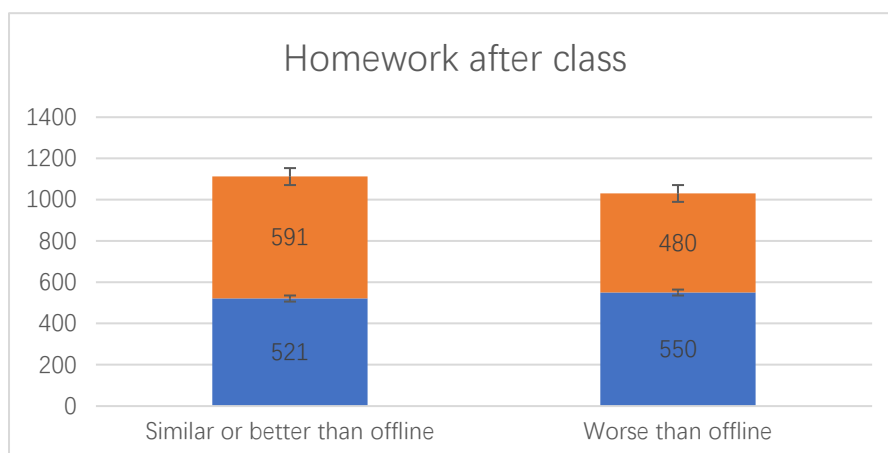
months of online learning, more students look forward to offline classes for the future class mode (the expectation value has risen from 52.0 to 59.7%).

**Table 1.** Summary and comparison of questionnaire results

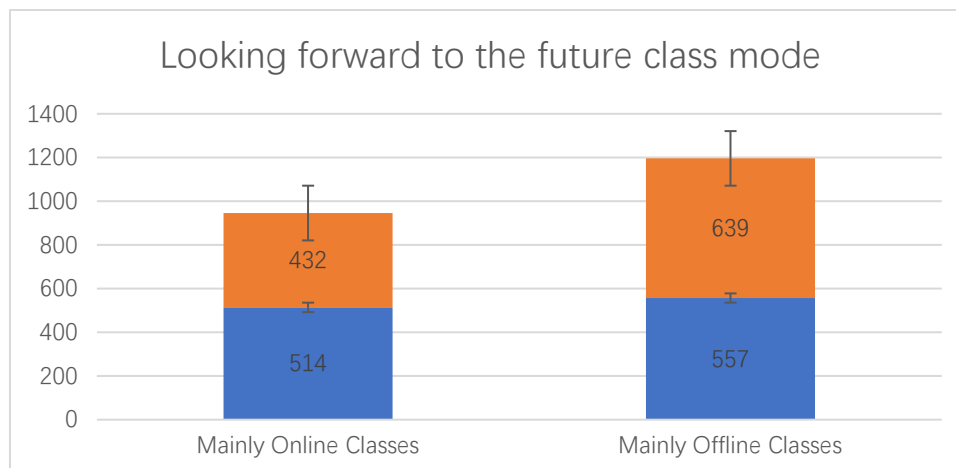
	One week after class (Number of cases)	Three months after class (Number of cases)	Chi-square value/T value	P value
Understanding			181.683	<0.001
Similar or better than offline	339	650		
Worse than offline	732	421		
Homework after class			9.164	0.002
Similar or better than offline	521	591		
Worse than offline	550	480		
Looking forward to the future class mode			12.730	<0.001
Mainly Online Classes	514	432		
Mainly Offline Classes	557	639		



**Figure 1.** Composition ratio and changes of understanding (one week to three months after the start of the course)



**Figure 2.** Composition ratio and changes of homework after class (one week to three months after class starts)



**Figure 3.** Composition ratio and changes of expected future class mode (one week to three months after class starts)

#### 4. Discussion

Current domestic research suggests that online learning leads to a higher rate of learning burnout, leading to insufficient use of online teaching resources, and it does not rule out that students' emotions and lives are affected by the epidemic [1]. Online teaching of college students has the objective influence of hardware facilities, network environment, policy support, and is also affected by subjective factors such as student status and on-site organization. More students are looking forward to returning to school [2]. This study has reached a similar conclusion. After three months of online course education, although students' proficiency in online teaching has increased, they are more looking forward to returning to school. This reveals the nonverbal communication of classroom learning (eye contact, Atmosphere, body language, etc.) may be beneficial to the teaching situation [3, 4]. In the future teaching process, we should pay attention to this non-verbal teaching influence in the classroom. Similarly, in the future online teaching process, proper attention to characteristic non-verbal behaviors may moderately alleviate this burnout.

To sum up, in the context of information technology, the impact of online teaching on the education system may be a double-edged sword. On the one hand, reducing offline education may reduce the quality of teaching and learning. On the other hand, information-based teaching and the epidemic have vigorously promoted the development of online education. Teachers may therefore improve the level of online teaching. Students, especially those in areas lacking educational resources, may receive fairer teaching resources. The premise is that teachers must attach importance to information literacy education and improve their learning initiative and self-discipline. However, the reality that must be recognized is that online education can become an important supplement to offline education, but it still cannot be completely replaced. Educational work must be coordinated to better improve the overall quality of students and improve the quality of education.

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