

A Study of Student Satisfaction Towards Online Teaching and Learning Conditions in the Situation of COVID 2019 in Chongqing, China

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Abstract

This research investigates and compares students' satisfaction with online teaching and learning during the COVID-19 pandemic, focusing on personal factors such as gender, age, income, and available educational resources. The survey was conducted among undergraduate students in Chongqing, China, where the majority were male (40.0%), aged 18-20 (59.8%), with an average monthly income of 2,000-3,000 CYN (39.8%), and utilized various educational tools.

The analysis revealed that students were delighted with the online teaching and learning environment during the pandemic (average score $\bar{x} = 4.43$), with the Information and Communication Systems receiving the highest satisfaction score ($\bar{x} = 4.59$). On a more detailed level, satisfaction varied based on personal factors. For example, those who did not specify their gender had the highest satisfaction ($\bar{x} = 4.50$), followed by females ($\bar{x} = 4.44$), and then males ($\bar{x} = 4.40$). Statistically significant differences in satisfaction were found when considering age, average monthly income, and type of learning equipment, underscoring the importance of personal factors in shaping students' online

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learning experiences during the COVID-19 outbreak. These findings suggest that personalized approaches could enhance online education effectiveness, particularly in periods of crisis such as a pandemic.

Keywords: Students satisfaction, online teaching and learning, COVID-19 pandemic

Introduction

Statement of problem and significance of research

The current situation of the COVID-19 pandemic has dramatically affected every aspect, including education. They are causing students/students to be unable to study in the classroom because they must be in a careful range and should maintain a distance of 2 meters. It poses a risk if looking at the school. Therefore, learners and teachers must adapt from classroom learning to online learning, depending on the teacher's choice or the convenient online program. Each program has different advantages and disadvantages. Another important aspect of online education is the availability of equipment. Communication tools and techniques used in teaching and learning, including the Internet signal, must also be ready. In some areas, the call may be unstable, causing problems quickly.

The study of online teaching management in COVID-19 found that learners were impacted by online learning on equipment. Unavailability of technology Various internet signals can cause problems in online teaching, and learning online takes the learner's responsibility very much. Because it can be studied anywhere, there is no teacher to supervise it like when looking in the classroom. Therefore, it can cause learners to lose concentration in learning. Moreover, be able to pay attention to other stimuli from around, so motivating student

satisfaction with online learning is paramount. Because most students who study online cannot go together, the more you learn, the more you may not understand. Thus, causing the students not to want to check (Fatani, 2020)

Therefore, the researcher is interested in studying students' satisfaction with online teaching and learning conditions in COVID 2019 to know the joy of students with online learning during the pandemic. The Outbreak of covid-19 Finds out about the health issues affected and students' opinions about online learning. Moreover, it is a guideline for revising online teaching and learning to better respond to student satisfaction.

Research Objectives

1. To study students' satisfaction with the online teaching and learning environment during the COVID-19 outbreak.
2. To compare the students' satisfaction with the online teaching and learning environment during the COVID-19 pandemic. Classified by personal status

Expected benefits

1. To know the student's satisfaction with the online teaching and learning environment in the situation of Covid-19 as a guideline for editing online education and learning to better respond to student satisfaction
2. To know the students' satisfaction with online teaching and learning conditions classified by personal status.

2. Literature Review

2.1 Concepts and Theories of online teaching and learning conditions in the Situation of COVID-19

The study provides a detailed understanding of the concepts and theories of online teaching and learning conditions amidst the COVID-19 pandemic. Online teaching is a systematically designed teaching and learning model that uses information and communication technology as tools. The instruction is based on educational theory, principles of learning, and educational psychology. With defined objectives or goals, content is presented in an electronic multimedia format, facilitating interaction between learners and teachers.

The researcher points out that online teaching utilizes internet technology as an alternative to traditional classroom learning, fostering an interactive environment between learners and teachers. During the COVID-19 pandemic, e-learning platforms and mobile phones have played a crucial role, enabling learners to access and engage with educational content anywhere.

The study also emphasizes that online teaching involves the delivery of lessons comprising text, images, audio, video, and other multimedia through the Web Browser, mimicking the dynamics of a regular classroom. Essential tools like email, social networks, and chat systems aid modern communication between learners and teachers.

The success of online learning depends on several factors, which the study classifies into four main categories:

1. Instructor factors: The instructor should develop engaging online lessons, support learning, give advice, monitor student progress, and encourage interactive participation in class.
2. Learner factors: Learners should possess skills in using computers and the internet. The study suggests that students who understand technology

and can immediately communicate with teachers and peers have better learning outcomes.

3. Lesson factors: The instructional content should be engaging and not solely reliant on text. The media chosen should be appropriate for the learners' age, grade level, knowledge, and experience.
4. Technology factors: The technology used should facilitate easy access, quick exchange of information, and continuous learning and development.

In conclusion, online teaching, powered by electronic media or the internet, is an adaptable education system that allows study from anywhere and anytime. During the COVID-19 pandemic, online teaching and learning adoption has surged, necessitating effective technology and interactive pedagogical methods.

Concept and Theory of student satisfaction

In studying student satisfaction, the researcher has researched conceptual papers and theories of student satisfaction from academics in related sciences. By presenting the main issues, namely, the meaning of satisfaction, which is detailed as follows

Student Satisfaction is defined.

Academics have defined satisfaction in a variety of ways, including:

Happiness refers to a person's feelings or attitude towards something. One or more factors are involved. Satisfaction occurs when a person's needs are met or achieved to a certain extent. Such sentiments will decrease or not happen. If that need or aim is unmet (Chatchai, 1992, cited in Wachirapanyanon, 2017). Satisfaction is defined as something that arises from motivation, which is an

intrinsic behavior that drives liking or Dislike, Agreeing, Disagree Happy, Disagree

When the needs are met, and expectations resulting from estimation, which is a learning experience from the action activities to meet the requirements according to the goals of each individual (Phrommanee et al., 2020). Satisfaction means that human satisfaction is an abstract expression of behavior. It cannot be seen in shape. How do we know if a person is satisfied or not? It can be observed by words that are pretty complex and require stimuli tailored to the individual's needs. It will make the person satisfied. Therefore, the stimulation is the person's motivation for satisfaction in that job (Kanchana, 2003). Satisfaction refers to a person's positive attitude towards something. It is a positive feeling or mood towards the work done by a person—the happiness of a person resulting from the performance and satisfaction of the results. Make people enthusiastic, happy, and determined to work. Gifted and encouraged to have ties with the agency. Take pride in the work's success, which will affect the efficiency and effectiveness of work, affecting the progress and success of the organization (Direk, 1985). Satisfaction refers to the two types of human feelings: the positive and the negative. This feeling that, when it arises, will cause happiness, this happiness is a feeling that differs from another positive feeling; in other words, it is a feeling that reverses happiness can be made. To increase happiness or positive feelings. It can be seen that happiness is a complex feeling and has a more significant effect than any other positive feeling (Wanichpanchapol, 2001, p. 9). Satisfaction means satisfaction is a matter. Emotional individual feelings and attitudes due to the stimuli and incentives which will manifest through behavior and is an essential component in the activities of individuals (Chingchai, 1998, p. 7)

In conclusion, satisfaction refers to the human feeling that expresses behavior. Which has both positive and negative sides Satisfaction is, therefore,

something that can tell how much a person is emotional about a stimulus. Alternatively, having an attitude towards something; if a person is delighted, they may show happiness through their facial expressions, eyes, and body. Moreover, if a person is highly dissatisfied, they may also exhibit negative behaviors, such as students' satisfaction with online teaching and learning during COVID-19. Therefore, it is paramount during the Covid-19 crisis. Because everything is not the same, everyone has to adapt; Especially the education system has a significant impact on online learning.

Conceptual Framework

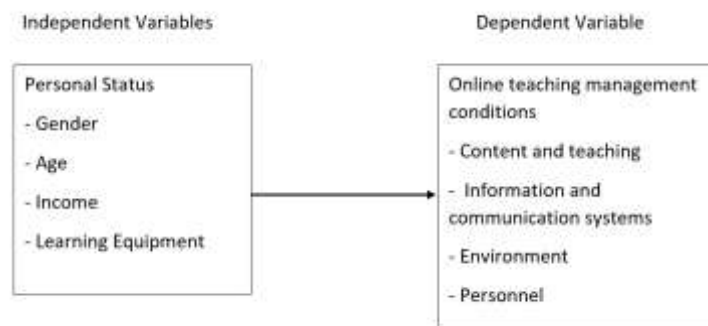


Figure 1 Conceptual Framework

Research Methodology

Population and sample

In this research, the researcher studies 122,200 undergraduate students in Chongqing, China (Ministry of Education. Ministry of Education, 2020). The researcher conducted a sample-size study in Chongqing, China, with undergraduate students. There are 400 pupils overall. There were 400 students

in Chongqing, China, who made up the sample population for this study. The Taro Yamane sample size (Taro Yamane, 1967) was calculated, and the error was less than 5% to estimate the size.

Research Instrument

The study employed a questionnaire as a research instrument to gather the required information. This questionnaire was structured with closed-ended and open-ended questions and was divided into three parts:

- General Information: This section collected demographic details about the respondents, including gender, age, religion, and year level.
- Conditions of Online Teaching and Learning: This section evaluated the status of online teaching and learning based on content and teaching, information and communication systems, environment, and personnel. The respondents were asked to rate their agreement on a 5-point scale, with 5 representing the highest level of agreement and one the lowest.

The interpretation of the average scores was as follows:

4.50-5.00: Most agree with the conditions of online teaching and learning management

3.50-4.49: Highly agree with the conditions of online teaching and learning management

2.50-3.49: Moderately agree with the conditions of online teaching and learning management

1.50-2.49: Slightly agree with the conditions of online teaching and learning management

1.00-1.49: At least agree with the conditions of online teaching and learning management

- Student Satisfaction: The final section of the questionnaire sought to understand student satisfaction regarding gender, age, income, and school supplies. Like the previous section, respondents rated their opinions on a 5-point scale, with the interpretation of scores as follows:

4.50-5.00: Most agree with the level of student satisfaction

3.50-4.49: Highly agree with the level of student satisfaction

2.50-3.49: Moderately agree with the level of student satisfaction

1.50-2.49: Slightly agree with the level of student satisfaction

1.00-1.49: Least agree with the level of student satisfaction

In summary, the study used a detailed questionnaire to collect information about the respondents, assess their perception of online teaching and learning conditions, and understand their satisfaction levels amidst the COVID-19 pandemic.

Research result

Characteristics of Respondents

Table 1 Gender of Respondents

Gender	N	Percentage
Male	158	40.0
Female	157	39.8
Not Specific	85	20.2

Total**400****100**

Table 1 presents that most of the samples were 158 male students, representing 40.0 percent, followed by 157 female students, representing 39.8 percent, and 85 unspecified, representing 20.2 percent, respectively.

Table 2 Age of Respondents

Age	N	Percentage
18-20 years	241	59.8
21-23 years	75	20.2
24-26 years	84	20.0
Total	400	100

Table 2 found that most of the samples were 241 students aged 18-20 years, representing 59.8 percent, followed by 75 people aged 21-23, representing 20.2 percent, and 84 aged 24-26. People, representing 20.0 percent, respectively

Table 3 School supplies

Supplies	N	Percentage
Laptop	83	19.8
iPad/Tablet	158	40.0
Other	159	40.2
Total	400	100

Table 4 found that most of the students had other educational equipment of 159 people, representing 40.2 percent, followed by iPad/Tablets of 158 people,

representing 40.0 percent, and Laptops of 83 people, representing percent. 19.8 respectively

The personal information of respondents indicated that the sample predominantly consisted of female undergraduate students in Chongqing, China, accounting for 50.5% of the sample, followed by males at 49.5%. The largest age group was 18-20 years (59.8%), followed by 21-23 years (20.2%), and 24-26 years (20%). Most students had an average monthly income of 2,000-3,000 CYN (39.8%), followed by 3,001-4,000 CYN (20.2%), and 4,001-5,000 CYN (20%). The majority of students used other educational equipment (40.2%), followed by iPads/Tablets (40%), and Notebooks (19.8%).

The overall condition of online teaching and learning during COVID-19 was at a very agreeable level (mean score = 4.4399). When analyzed in four aspects, the ranking from highest to lowest was as follows: Information and Communication Systems (mean score = 4.5995), Personnel (mean score = 4.56), Environment (mean score = 4.40), and Content and Teaching (mean score = 4.2000). When examining student satisfaction with online learning and teaching during COVID-19 by gender, the overall level was very agreeable (mean score = 4.450). In decreasing order, those who did not specify gender had the highest level of satisfaction (mean score = 4.5000), followed by female students (mean score = 4.4494), and male students (mean score = 4.4000). Comparative analysis of student satisfaction based on age showed a statistically significant difference in the satisfaction levels towards online teaching and learning during COVID-19 across different age groups at a significance level of .05.

Similarly, a comparative analysis of student satisfaction based on average monthly income also revealed a statistically significant difference in satisfaction levels with online teaching and learning during COVID-19 at a significance level of .05. A comparative analysis of student satisfaction based on the type of learning equipment used also indicated a statistically significant difference in satisfaction levels with online teaching and learning during COVID-19 at a significance level of .05.

Discussion

The investigation explored the degree of undergraduate students' contentment with the online teaching and learning atmosphere in the context of the COVID-19 pandemic. A significant finding of this study was that overall student satisfaction towards online teaching during the COVID-19 period was relatively high, exemplified by an average score of 4.4399. This could be attributed to the inherent advantages of online learning, such as its flexibility, ability to learn at any time and place, and cost-effectiveness by minimizing travel expenditures. This result resonates with previous research. For instance, Chan Tiya Wong (2021) found a high level of satisfaction among students participating in online learning. Similarly, studies conducted by Walaiphan Ajareewatana & Prinyaporn Pojariya (2020) and Rung Arun Krasin (2021) noted a high level of satisfaction regarding the online teaching and learning environment, further validating our findings. Our research also aimed to understand whether personal characteristics such as gender, age, average monthly income, and learning equipment influenced student satisfaction levels. Intriguingly, the study unveiled notable variations across these personal attributes, implying a potential impact of students' preparedness on their satisfaction levels. This observation aligns with the findings

of Pichsinee Sathiradol (2021) and Metika Phuangsaeng & Songsiri Wichiranon (2021), where student satisfaction was shown to be affected by elements like the availability of necessary electronic devices and a robust internet connection.

However, this stands in contrast with the findings from Arocha Thonglao's 2021 study, which proposed that factors such as gender, age, academic year level, and faculty affiliation did not exert a significant influence on the satisfaction levels among students. This discrepancy invites further exploration, providing an interesting avenue for future research. Overall, our study adds to the growing body of evidence underscoring the potential of online learning, while also highlighting the nuanced influences that personal factors may have on student satisfaction in a pandemic-induced online learning environment.

Practical Implications

This research results indicate varied levels of satisfaction among students with different personal circumstances towards online teaching and learning during the pandemic. Therefore, it is crucial to consider these differences when implementing online teaching methodologies. Creating an equitable learning environment for all students, irrespective of their personal circumstances, is paramount. It is evident from the study that certain students might face challenges regarding accessibility and readiness for online learning, particularly in terms of equipment availability or internet connection quality. These challenges might lead to feelings of discouragement, stress, and difficulty keeping pace with their peers. Therefore, education providers should strive to alleviate these barriers and ensure that online education is equally accessible and efficient for all students.

Future Research Suggestions

Further research should explore the impact of online learning during the COVID-19 pandemic on a broader range of students, extending beyond undergraduate students. Additionally, these studies should aim to identify potential solutions to the challenges identified and contribute towards the development of a more robust and inclusive educational system that is resilient to such global disruptions. Understanding these dynamics will help educators and policymakers craft strategies that can leverage the potential of online learning while mitigating its shortcomings.

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