

COVID-19 and Transition to Online Learning: Evidence from a Sino-Foreign University in China

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ABSTRACT

This paper investigates how the COVID-19 pandemic influenced student perceptions of online learning. This study examines how did the COVID-19 pandemic and the first-time transition to online mode of instruction influence Sino-Foreign University student perceptions of online learning in terms of (1) academic dishonesty, (2) privacy and confidentiality, (3) impact of social media on online learning (4) hybrid method and (5) institutional training. In order to judge students' perception of the transition to online learning, this study employed a cross-sectional survey-based design to gauge student perceptions of online learning before, during, and after the transition to remote instruction. This study finds that Sino-foreign University students are more conscious of academic integrity. Social media has a vital role in providing teaching resources, communicating with professors and classmates, and expediting collaboration during the pandemic. A blended learning model might be the best option for a post-COVID-19 environment for higher institutions.

Keywords: COVID-19, Online Learning, Sino-Foreign University, academic dishonesty, social media, hybrid method.

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1. Introduction

The global community has experienced a hard time in the first period of 2020. COVID-19 spread throughout the world. This pandemic affects human endeavor in many aspects. For example, industrial production declined significantly, and educational institutions re-adjust their academic calendar and were forced to transform their traditional learning model into online teaching and learning activities. Higher educational organizations do not have other options other than proper use of internet technology. As a result, virtual learning became popular to continue academic activities worldwide.

There is little recent research suggesting that the COVID-19 pandemic influences the learning system throughout the world. According to García *et al.*, (2021), COVID-19 forced higher educational institutions to reconsider teaching and assessment. COVID-19 epidemic is both a difficulty and a chance for the education system (Daniel, 2020, Azorín, 2020). To mitigate the extent of COVID-19, all the educational institutions closed their traditional model of learning and moved to an online mode of education and learning activities (Pokhrel & Chhetri, 2021, Lemay and Doleck, 2020, Lemay *et al.*, 2021).

The virtual teaching and learning activities model affects both teaching staff and students. Allen *et al.*, (2020) researched that the online education mode significantly increased the workload of teaching staff because of converting traditional teaching content into online. They also found that teaching staff became sufficiently skillful in using necessary software. Baticulon *et al.* (2021) found that students faced problems and challenges because of sudden and unplanned transitions to the virtual way of learning.

Bozkurt & Sharma (2020) claimed that the educational system has become vulnerable to external threats because of the COVID-19 pandemic. Ribeiro (2020) found several logistical challenges and attitude modifications in the digital transformation of online learning. Feldman (n.d.) investigates student assessments during the COVID-19 pandemic and found difficulties in the digital transformation of instructional operations during the Covid-19 pandemic. These are:

1. Pandemic-related anxiety hurts student academic performance.
2. Racial, economic, and resource differences affect students' online mode of academic performance.
3. The majority of the teaching staff were not ready to deliver a high-quality online method of instruction.

The online mode of learning is not a new system in Education. According to the UNESCO (2020) report, many educational institutions introduced online Education on this COVID-19 pandemic. It is important to concede that the online mode of learning is not a new system in Education. Over the past decade, top universities such as Tsinghua, Peking University, Harvard, MIT, Yale, Oxford, Cambridge, among others, are moving their program from face-to-face delivery to online mode of learning bit by bit (Bao, 2020; Picciano, 2017). Tang *et al.*, (2021) argued that introducing the online mode of learning before COVID-19 was voluntary and planned, and very few educational institutions applied online learning for few disciplines. However, the COVID-19 pandemic forced most educational institutions to emergency transitions to online learning (García *et al.*, 2021; Iglesias *et al.*, 2021; Lemay *et al.*, 2021).

As COVID-19 hit the world in 2020, relatively little body of knowledge regarding the transition to virtual teaching is available. Considering this study investigates how this transition could impact students' point of view of virtual education. It is essential to know students' transition to online learning during the COVID-19 pandemic. The researcher wanted to

investigate how the COVID-19 epidemic affects student viewpoints of virtual education. To do so, the researcher surveyed a Sino-Foreign University in China regarding their knowledge and experience of the transformation to online education.

This study examines how did the COVID-19 pandemic and the first-time transition to online mode of instruction influence Sino-Foreign University student perceptions of online learning in terms of (1) academic dishonesty, (2) privacy and confidentiality, (3) impact of social media on online learning (4) hybrid method and (5) institutional training.

To find the answer of the research questions, this study combines the elements of quantitative research and qualitative research. This study used a mixed-method to increase the generalizability of the findings. Survey questions have been prepared in two styles, some are multiple-choice, and some are Likert scale, which was rated from one to five points. We obtained data from senior students who have experience with offline and online learning modes during the COVID-19 Pandemic. The anonymous respondents completed their survey online. This study finds that Sino-foreign University students are more conscious of academic integrity. Social media has a vital role in providing teaching resources, communicating with professors and classmates, and expediting collaboration during the Pandemic. A blended learning model might be the best option for a post-COVID-19 environment for higher institutions.

This study contributes to the literature in several ways. For example, no prior research examines how the COVID-19 pandemic influenced student perceptions of online education in Sino-Foreign cooperative universities in China. Some studies conducted similar studies by gathering students' perceptions from traditional universities in a particular country. However, there is a knowledge gap in the existing literature regarding investigating the students' online education during the pandemic in Sino-Foreign universities in China.

In the context of the recent trend of globalization, it is crucial to investigate how the COVID-19 pandemic influenced student perceptions of online learning in a Sino-foreign university in China. Compared with traditional universities in China, Sino-foreign universities in China developed a unique educational system. For example, Sino-foreign University imports Western countries' academic curriculum, faculties, and related teaching technologies. Besides, the medium of instruction of Sino-foreign universities is English (Marjerison, Rahman, and Li, 2020). This unique education system introduced by Sino-Foreign University in China makes a clear difference in the higher education system in China.

Students' move to an online mode of education was not an option or even not a choice. It was necessary because of the COVID-19 pandemic. So, the opinions or perceptions of Sino-Foreign University students on online learning will play an essential role in the strategic decision-making in higher education. Therefore an investigation of how the COVID-19 pandemic influenced Sino-Foreign University students' perception of online learning is relevant at this time. Finally, this examination will help us realize the restriction and capacity of this transition to online education. It will also allow us to expect and modify the effect of the unexpected shift to virtual learning.

The remainder of this paper is organized as follows. In the next section, this study briefly reviews relevant literature and the institutional background of Sino-foreign universities in China. Section 3 describes the research methodology and sample. In Section 4, this study explains the results of the main tests. Section 5 discusses results and compares them with prior research. Section 6 describes the limitations and makes recommendations for further study, and Section 7 concludes the paper.

2. Literature Review

2.1 COVID-19 and Online Learning Related Studies

In the era of English language instruction, two studies found that Zoom plays a significant role in replacing face-to-face classroom studies with online learning (Ersin et al., 2020; Romero-Ivanova et al., 2020). Zoom also plays a vital role in medical teaching program in Jordan (Al-Balas et al., 2020) and in Saudi Arabia (Khalil et al., 2020). However, few studies found that there are several barriers to implementing the Zoom technology successfully. These barriers are weak internet service and mobile data package obstacles (Garris and Fleck, 2020).

Social media is considered as well-establish access to contact students is social media. Chugh & Ruhi, (2017) found that social media played a significant role in the transition to online learning during the COVID-19 pandemic. These are: (1) deliver teaching materials to the students, (2) Communicate with stakeholders, and (3) expediting teamwork. However, using Chinese students' perceptions to transition to online learning, Liu et al. (2020) found that social media may not replace face-to-face education. Chugh & Ruhi (2019) identified several barriers to using social media as an online learning platform. These are (1) privacy limitations and (2) assessment submission integrity.

2.2 Challenges in transition to online learning

Synchronous and asynchronous

According to Turnbull et al. (2021), both synchronous and asynchronous methods are useful in a blended learning situation. Using the institutional response of four Chinese universities regarding the transition to online learning during the COVID-19 pandemic, Davies et al. (2020) found that Chinese students appreciated the asynchronous system as they find it a very flexible course delivery system that helps them to manage their study very well. However, an opposite view was found Romero-Ivanova et al. (2020)'s study. They discovered that synchronous instruments, including Zoom, help study online learning during the COVID-19 pandemic.

Online capability

Prior literature suggests that not only students, but also instructors should have capability of using online technology. Lassoued et al. (2020) found two significant obstacles for transition to online mode of education. These are (1) faculty capability in online assessment and (2) students' complications in adopting online learning. Similar results were found in Sales et al., (2020) studies. Using Spanish university data, they found that both faculty and students lack proficiency in using online technology. Mouchantaf (2020) argued that the lack of ability in using online learning technology in both faculty and teachers is due to the absence of institutional support. Schmidt et al. (2016) suggested that university administrators should provide the opportunity to develop technical skills to the educators.

Academic dishonesty

Using the data of four Chinese universities regarding cheating of virtual learning, Davies et al. (2020) found that plagiarism is a concern for English language assessment. Regarding the issue of plagiarism, Davies et al. (2020) suggest that the problems of students copying other people's work can be eliminated by providing effective feedback on students' draft submissions. Several studies found that cheating is a problem in online exams, and it is quite impossible to identify the students' identity during online examinations (Lassoued et al., 2020; Sahbaz, 2020). According to Mellar et al., (2018), the application of plagiarism detection software, forensic analysis of learning and voice recognition tools might help mitigate students' cheating in the online mode of learning.

Privacy and confidentiality

Privacy and confidentiality are other critical tasks for moving to online education (Lassoued et al., 2020). According to María Consuelo et al., (2020), Internet Personal Assistant (IPA) might potentially violate user privacy even though it has several security features to authenticate users. Romero-Ivanova et al., (2020) found some privacy problems of using Zoom and suggested few ways to mitigate the problems. These are (1) users' confirmation to use passwords, (2) use of waiting rooms, and (3) admitting users separately from waiting rooms.

2.3 Lessons learned from prior research

Institutional support

Several studies argued that the successful transition to the online mode of learning mainly depends on institutional support (Alqahtani & Rajkhan, 2020; Davies et al., 2020; Hartshorn & McMurry, 2020; Kara et al., 2020; Tartavulea et al., 2020; Todd, 2020). For example, Davies et al., (2020) suggest that clear plans and decisions are required for a successful transformation to virtual education. Hartshorn & McMurry (2020) suggested that institutions provide support resources to faculty and students. Kara et al., (2020) suggested that institutions pay for online platform subscriptions for both faculty and students. Kebritchi et al. (2017) recommended that institutions provide all technical support to both faculty and students for the smooth performance of online learning. They also suggested providing technical training that is important for a thriving transition to a virtual education model.

Training

As mentioned earlier, faculty and student training is another essential factor for a successful transition to online learning. Using pharmacy students as respondents, Shawaqfeh et al. (2020) found that both instructor and student training need to solve online learning fences to accomplishment in a virtual environment. Using Jordan medical students as respondents, Al-Balas et al., (2020) found that coaching in digital literacy to instructors is vital to conducting a successful online medical class. Similarly, using Chinese medical students as respondents, Wang

et al. (2020) found that faculties should have proper simulation software training and self-management strategies training. Finally, Kara et al. (2020) suggest that educators should have training regarding using social media for education.

Blended learning

Several studies argued not to establish the online mode of learning by forcing and suggests an option for blended learning (Al-Balas et al., 2020; Alqahtani & Rajkhan, 2020; Kaur et al., 2020; Liu et al., 2020; Garris & Fleck, 2020; Mouchantaf, 2020; Rizun & Strzelecki, 2020; Tartavulea et al., 2020). A blended form of learning is the combination of both face-to-face and online modes of learning to enrich learning content. According to Kaur et al., (2020), a blended (hybrid) form of learning might be the best alternative for an institution to provide education during post-COVID 19. Using Chinese students as respondents, Liu et al. (2020) also found the benefit of adopting a hybrid learning model for post-COVID reinforcement.

2.4 Institutional background of Sino-Foreign University in China

The recent trend of Chinese students is to go western countries to obtain a higher academic degree. Considering this phenomenon, western universities came to China to establish university which is called Sino-foreign University. These kinds of joint Universities create new advantages for the Chinese to do business with foreign countries, including education-related issues. Those international schools made an excellent bonding and cross-partnership in the education levels, which provide cross-culture education (Xiao, 2017). The University of Nottingham at Ningbo (UNNC) in China was the first international school rooted in fall during 2004. To follow this way of UNNC, eight international universities are established as Sino-foreign universities in China having international education. Thus Chinese students is provided the higher education experience after starting this Sino-foreign curricular system in China. Those Universities that work as Sino-foreign universities provide all their courses as the medium of English language instructions.

In contrast, most other Typical Chinese universities use Mandarin in their teaching during the classroom. However, the courses provided by the Sino-Foreign Universities are offered by those international schools according to their countries, and those degrees are certified by those foreign countries (Zhuang and Tang, 2012; Xiao, 2018).

3. Research Methodology

3.1 Research Design

A research design is a plan or framework for conducting research. In addition, a research design is used as a guide in collecting and analyzing the data. According to Yin (2003), there are several conditions to choose a research design and what the researchers intended to find out is one of the conditions among them. So choosing a suitable research

design would help a researcher to address the research questions very well. This study used both qualitative and quantitative methods. In order to investigate how the COVID-19 epidemic influenced student judgment, of virtual education, a cross-sectional survey-based design is used. To do so, this study surveyed a Sino-Foreign University in China regarding their encounter of the transition to on-screen teaching. Then, this study compared and contrasted this research's findings with the practical research to narrate how the COVID-19 pandemic and the first-time transition to online mode of instruction influenced Sino-Foreign University student perceptions of online learning.

3.2 Procedure and respondents

The participants replied to the survey questionnaire online. The questionnaire was allocated on November 15th, 2021, using formerly manufactured students' WeChat groups that the university embraced for imparting to their students. The questionnaire is attached in Appendix A. The participants were entirely a mystery and voluntarily. The survey questionnaire was prepared with a connection regarding how the COVID-19 Pandemic and the first-time transition to online mode of instruction influenced Sino-Foreign University students' acknowledgment of virtual learning in labels of (1) academic dishonesty, (2) privacy and confidentiality, (3) impact of social media on online learning (4) hybrid method and (5) institutional training. A total of N = 105 students take part in the research. We mainly obtained data from senior students who have experience with offline and online learning modes during the COVID-19 Pandemic.

3.3 Research Instrument

Questions have been prepared in two styles, some are multiple-choice and some are Likert scale, which was rated from one to five points. The questions were reorganized into five types for clarifying statistical examination and were stereotyped as strongly disagree, disagree, neither either nor disagree, agree, and strongly agree. The questionnaire is divided into six parts: Part I – socio-demographic characteristics of the respondents; Part II – students' academic dishonesty and Cheating during online exams; Part III – privacy and confidentiality are critical challenges of the transition to online learning; Part IV – the impact of social media on the transition to online learning; Part V – A blended form of learning; and Part VI – the impact of institutional training on online learning.

3.4 Data analysis

Microsoft Excel was utilized for data analysis. Descriptive statistics were carried out using no. of respondents, percentage, mean, and SD for the quantifiable variable. This study used descriptive statistics for quantitative data and descriptive and thematic analysis for qualitative data. This study finally calculates the overall mean value to find a concrete conclusion.

4. Results

4.1 Academic dishonesty

Table 1, Panel A shows the students' perception of academic dishonesty during online learning. This study set Likert-type Mean interpretation as Strongly Disagree (1.00-1.80); Disagree (1.81-2.60); Neutral (2.61-3.40); Agree (3.41-4.20); Strongly Agree (4.21-5.00). When students were asked whether they solved assignments and other fellow students that were originally individual homework or assignments, this study found that most of them disagreed with this statement (Mean = 2.10). These findings suggest that students solved individual online assignments without discussing them with other students. Students were asked whether they copied a book or article from the internet without citing the sources. This study also found that most of them strongly disagreed with this statement (Mean = 1.67). These findings suggest that Sino-foreign University students are more conscious of plagiarism.

Similarly, most of the students claim that they didn't submit the same assignments in several courses (Mean = 1.38) and didn't submit other individual projects as their work (Mean = 1.23). The overall Mean is 1.59, which strongly disagrees with the Likert-type Mean interpretation. This result suggests that students of Sino-foreign universities don't involve with academic dishonesty.

Table 1: Panel A: Students' Perception of Academic Dishonesty during Online Learning

Likert-type Mean Interpretation: Strongly Disagree (1.00-1.80); Disagree (1.81-2.60); Neutral (2.61-3.40); Agree (3.41-4.20); Strongly Agree (4.21-5.00)		
No. of Respondents: 105		
Statements	Mean	Interpretation
1. I Solved assignments along with other fellow students that had initially been individual homework or assignments.	2.10	Disagree
2. I Copied a book or article from the internet without citing the sources	1.67	Strongly Disagree
3. I have submitted the same assignments in several courses	1.38	Strongly Disagree
4. I have submitted others do individual assignments as my work	1.23	Strongly Disagree
Total Overall Mean	1.59	Strongly Disagree

Table 1, Panel B shows the students' perception of cheating during an online exam. The results show that the majority of the students strongly disagreed with cheating during online exams. For example, most of the students claim that (1) they didn't solve online exam questions via internet resources without getting a prior permission from my instructor (Mean = 1.68); (2) They never exchanged answers of the questions with their classmates during having an online examination (Mean = 1.50) and (2) they didn't make falsifying technical problem during online examinations to gain an advantage like more time and repetition of the exam (Mean = 1.34). The overall Mean of Table 1, Panel B, is

1.50, which strongly disagrees with the Likert-type Mean interpretation. This result suggests that students of Sino-foreign universities don't involve in cheating during the online exam.

Table 1: Panel B: Students' Perception of Cheating during online exams

Likert-type Mean Interpretation: Strongly Disagree (1.00-1.80); Disagree (1.81-2.60); Neutral (2.61-3.40); Agree (3.41-4.20); Strongly Agree (4.21-5.00)		
No. of Respondents: 105		
Statements	Mean	Interpretation
1. I have solved exam questions online via internet resources without getting prior permission from my instructor	1.68	Strongly Disagree
2. I have exchanged answers of the questions with their classmates during having an online examination.	1.50	Strongly Disagree
3. I have made falsifying technical problems during online examinations to obtain benefits from my instructor, like more time and repetition of the exam.	1.34	Strongly Disagree
Total Overall Mean	1.50	Strongly Disagree

4.2 Privacy and confidentiality

Table 2 shows students' perceptions of privacy and confidentiality during online learning. The majority of the students do not think that privacy and confidentiality are critical challenges of the transition to online education (Mean = 2.53). However, most of the students neither agree nor disagree with the security features of Blackboard (Mean = 3.07). The overall Mean of Table 2 is 2.80, which is neutral with the Likert-type Mean interpretation. This result suggests that students of Sino-foreign universities neither agree nor disagree with privacy and confidentiality issues related to Blackboard. More precisely, it is demonstrated that students are confused or still thinking about whether privacy and confidentiality during online learning are lost.

Table 2: Students' Perception of Privacy and confidentiality during Online Learning

Likert-type Mean Interpretation: Strongly Disagree (1.00-1.80); Disagree (1.81-2.60); Neutral (2.61-3.40); Agree (3.41-4.20); Strongly Agree (4.21-5.00)		
No. of Respondents: 105		
Statements	Mean	Interpretation
1. I found privacy and confidentiality are critical challenges of the transition to online learning.	2.53	Disagree
2. I found blackboard violate user privacy even though it has several security features.	3.07	Neutral
Total Overall Mean	2.80	Neutral

4.3 Impact of Social Media

Table 3 shows students' perceptions of the impact of social media on online learning. The students were asked whether their professors delivered teaching materials by using social media like WeChat and QQ rather than Blackboard. This study found that most of the students neither agree nor disagree with using social media by their instructor to deliver teaching materials (mean = 3.12). However, the majority of the students agreed that they communicated with their professors (Mean = 3.86) and classmates (Mean = 4.56) by using social media (WeChat or QQ) rather than Blackboard. Finally, students were also asked about their perception of the role of social media in improving their academic performance. This study found that most students strongly agreed that social media has a vital role in improving their academic performance (Mean = 4.34). The overall Mean of Table 3 is 3.97, which agrees with the Likert-type Mean interpretation. This result suggests that students of Sino-foreign universities agree that social media has a vital role in improving their academic performance.

Table 3: Impact of Social Media on Online Learning

Likert-type Mean Interpretation: Strongly Disagree (1.00-1.80); Disagree (1.81-2.60); Neutral (2.61-3.40); Agree (3.41-4.20); Strongly Agree (4.21-5.00)		
No. of Respondents: 105		
Statements	Mean	Interpretation
1. My professors delivered teaching materials by using social media (WeChat/QQ) rather than Blackboard.	3.12	Neutral
2. I communicated with my professors by using social media (WeChat/QQ) rather than Blackboard.	3.86	Agree
3. I communicated with my classmates by using social media (WeChat/QQ) rather than Blackboard.	4.56	Strongly Agree
4. I think that social media (WeChat/QQ) has an important role in improving students' academic performance.	4.34	Strongly Agree
Total Overall Mean	3.97	Agree

4.4 Traditional vs. Blended Learning

A blended or hybrid form of learning combines both face-to-face and online learning modes. Table 4 shows students' perceptions of traditional vs. blended learning. The majority of the students agreed that the combined approach would be the perfect way to deliver education in the future (Mean = 3.46). This study found that most of the students neither agree nor disagree with entirely e-learning (Mean = 2.64) or traditional learning (Mean = 3.38) would be the perfect way to deliver education in the future. The overall Mean of Table 4 is 3.16, which is neutral with the Likert-type Mean interpretation. This result suggests that students of Sino-foreign universities neither agree with traditional vs. blended learning models as their future learning mode.

Table 4: Students' perception of Traditional vs. Blended Learning

Likert-type Mean Interpretation: Strongly Disagree (1.00-1.80); Disagree (1.81-2.60); Neutral (2.61-3.40); Agree (3.41-4.20); Strongly Agree (4.21-5.00)		
No. of Respondents: 105		
Statements	Mean	Interpretation
1. I think the blended approach is the preferred way to deliver education in the future.	3.46	Agree
2. I think the Entirely E-learning is the preferred way to deliver education in the future.	2.64	Neutral
3. I think the Traditional learning is the preferred way to deliver education in the future.	3.38	Neutral
Total Overall Mean	3.16	Neutral

4.5 Institutional training

Table 4 shows students' perceptions of institutional training for online learning. The majority of the students neither agree to need an introductory computer literacy course (Mean = 3.18) nor even training in using computers and the internet for the online course. However, most of the students agreed that they needed the training to help receive their online course (Mean = 3.47). The overall Mean of Table 5 is 3.25, which is neutral with the Likert-type Mean interpretation. This result suggests that students of Sino-foreign universities neither either nor disagree with receiving institutional training for online learning.

Table 5: Students' perception of Institutional Training for Online Learning

Likert-type Mean Interpretation: Strongly Disagree (1.00-1.80); Disagree (1.81-2.60); Neutral (2.61-3.40); Agree (3.41-4.20); Strongly Agree (4.21-5.00)		
No. of Respondents: 105		
Statements	Mean	Interpretation
1. I need for basic computer literacy course	3.18	Neutral
2. I need for training in using computers and the internet for the online courses	3.11	Neutral
3. I need for training to help receive my online course	3.47	Agree
Total Overall Mean	3.25	Neutral

5. Discussion

5.1 Academic dishonesty

This study found that Sino-foreign University students are more conscious of academic integrity, including plagiarism of online assignments. Prior studies also found similar results. For example, Davies et al. (2020) found that plagiarism is an important issue using four traditional Chinese universities data, especially for online English language assessments. Sales et al. (2020) found that students are very conscious of copying other people's work (plagiarism) without

proper citation.

However, in the case of cheating during the online exam, this study found opposite results compared with prior research. This study also found that most students claimed that they didn't submit the same assignments in several courses and didn't submit others to individual projects. However, Lassoued et al. (2020) found that conducting cheating is a significant problem during online exams, and it is challenging for online instructors to identify cheating during online exams. They argued that it is a very challenging job for an online instructor to assess the authenticity of online exams. Lassoued et al. (2020) also suggest that employing a suite technology to verify authentic students and confirm the originality of students' homework and assignment might mitigate the problem of academic dishonesty.

5.2 Privacy and confidentiality

This study found that the majority of the students do not think that privacy and confidentiality are critical challenges of the transition to online education. The possible reason behind this finding might be the powerful Blackboard system introduced by a Sino-foreign university in China. However, these findings contradict prior studies. For example, Lassoued et al. (2020) are concerned about data security and confidentiality. Similarly, Maria Consuelo et al. (2020) found that Internet Personal Assistants can potentially violate users' security.

5.3 Impact of Social Media in online learning

This study found that most students strongly agreed that social media has a vital role in improving their academic performance. The possible reason behind this finding might be the well-established social media like WeChat and QQ in China. Prior literature also finds similar results. Chugh & Ruhi (2017) found that social media works as a gateway to connecting students. They also found that instructors also use social media to share instructions materials and communicate with students. Several studies found that Facebook became the most popular social media during the COVID-19 pandemic (Al-Balas et al., 2020; Kara et al., 2020; Lassoued et al., 2020; Rizun & Strzelecki, 2020; Uzzaman et al., 2020). However, Chugh & Ruhi (2017) mentioned a few significant barriers to social media use in higher education. These are (1). Assessment submission integrity, (2) privacy limitations, and (3) limited integration.

5.4 Traditional vs. Blended Learning

A blended or hybrid form of learning combines both face-to-face and online learning modes. This study found that most of the students agreed that the combined approach would be the perfect way to deliver education in the future. Prior literature also found similar results. Kaur et al. (2020) found that a hybrid learning model would be the best choice for a post-COVID-19 environment for higher institutions. These findings suggest the need for higher educational institutions to respond to future crises. Using Chinese traditional universities data, Liu et al. (2020) also indicate that combining face-to-face and online learning modes would be a sustainable preferred way to deliver higher

education in the future for the post-COVID environment.

5.5 Institutional training

This study found that most of the students agreed that they needed the training to help receive their online course. This finding is similar to prior research-training is an essential component of a successful online class for both instructor and students. The study of Shawaqfeh et al. (2020) revealed that both instructors and students must have the proper training to overcome the barrier of a thriving online environment. Using Jordan data, Al-Balas et al. (2020) found that instructors of medical students need special training to make a successful online medical learning. Wang et al. (2020) also suggests a special training (simulation software) for both medical students and instructors.

6. Limitation and recommendations for future research

This study has some limitations that give rise to several issues for further research. The respondents of this study are only one Sino-foreign university in China, and the sample size of this study is comparatively small. So, it is highly recommended that further research be conducted with more Sino-foreign universities in China, including a large sample of students, to determine their perceptions about the transition to online learning mode during the COVID-19 pandemic. In addition, this study highly recommends conducting a comparative study between traditional Chinese and Sino-foreign universities in China as they have substantial institutional differences.

The second area of research is required to determine instructors' perceptions of the transition to online learning during the COVID-19 pandemic. To do so, the respondents might be the instructors who have experience conducting online teaching at Sino-foreign universities in China. The reason is that students might not share the actual view of academic dishonesty during online exams. So, it is crucial to the true picture academic integrity of online learning from the perspective of instructors.

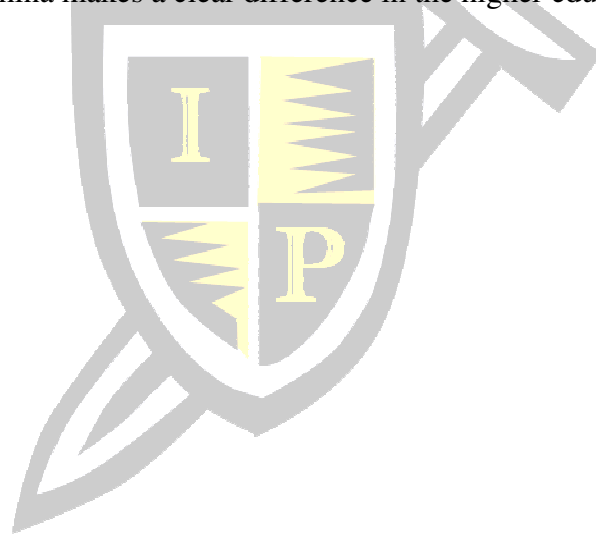
7. Conclusion

The COVID-19 pandemic fundamentally changed how higher education institutions provide education across the world. In order to maintain a social distance, higher educational institutions were forced to online transit mode of learning with reflective consequences for both students and faculties. Considering the impact of the COVID-19 pandemic, this study investigates how this transition influences students' perceptions of online learning. The main research question of this study is to examine how did the COVID-19 pandemic and the first-time change to online mode of instruction influence Sino-Foreign University student perceptions of online learning in terms of (1) academic dishonesty, (2) privacy and confidentiality, (3) impact of social media on online learning (4) hybrid method and (5) institutional training. This study used both qualitative and quantitative methods. To explore how the COVID-19 pandemic influenced student perceptions of online learning. This study surveyed a Sino-Foreign University in China regarding the transition to an online learning mode during the pandemic. This study also linked findings with prior research to how the COVID-19 pandemic and the first-time change to the

online method of instruction influenced Sino-Foreign University student perceptions of online learning. A total of $N = 105$ students participated in the study.

This study finds that (1). Sino-foreign University students are more conscious of academic integrity, including plagiarism of online assignments (2). Students didn't submit the same assignments in several courses and didn't submit others to individual projects (3). Students do not think that privacy and confidentiality are critical challenges of the transition to online education (4). Social media has a vital role in improving their academic performance (5). A blended learning model might be the best option for a post-COVID-19 environment for higher institutions (6). Both instructors and students must have the proper training to overcome the barrier of a thriving online environment. In the context of the recent trend of globalization, it is crucial to investigate how the COVID-19 pandemic influenced student perceptions of online learning in a Sino-foreign university in China.

Compared with traditional universities in China, Sino-foreign universities in China developed a unique educational system. For example, Sino-foreign University imports Western countries' academic curriculum, faculties, and related teaching technologies. Besides, the medium of instruction of Sino-foreign universities is English (Marjerison, Rahman, and Li, 2020). This unique education system introduced by Sino-Foreign University in China makes a clear difference in the higher education system in China.



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Appendix A Questionnaire

COVID-19 and Transition to Online Learning: Evidence from Sino-Foreign University in China

This study will ask, how did the COVID-19 pandemic and the first-time transition to online mode of instruction influence Sino-Foreign University student perceptions of online learning in terms of (1) academic dishonesty, (2) privacy and confidentiality (3) impact of social media on online learning (4) blended / hybrid method and (5) institutional training.

Questionnaire

Characteristics of the study respondents (Select only one)		
Age (years)	Gender	Educational Status
<input type="radio"/> < 21	<input type="radio"/> Male	<input type="radio"/> Freshman
<input type="radio"/> 21–22	<input type="radio"/> Female	<input type="radio"/> Sophomore
<input type="radio"/> 23–24	<input type="radio"/> Others	<input type="radio"/> Junior
<input type="radio"/> >24		<input type="radio"/> Senior

(1) Academic dishonesty

Academic Dishonesty (Circle the correct numeric response to each question)						
	Strongly Disagree	Disagree	Neither either or disagree	Agree	Strongly Agree	
1. I Solved assignments along with other fellow students that had initially been individual homework or assignments.	1	2	3	4	5	
2. I Copied a book or article from the internet without citing the sources	1	2	3	4	5	
3. I have submitted the same assignments in several courses	1	2	3	4	5	
4. I have submitted others do individual assignments as my work	1	2	3	4	5	
Cheating during online exams (Circle the correct numeric response to each question)						
	Strongly Disagree	Disagree	Neither either or disagree	Agree	Strongly Agree	
1. I have Solved exam questions by using additional materials or the internet without	1	2	3	4	5	

permission					
2. I have exchanged ideas with others about possible answers during an examination.	1	2	3	4	5
3. I have made falsifying technical problems during online examinations to obtain benefits from my instructor, like more time and repetition of the exam.	1	2	3	4	5

(2) Privacy and confidentiality (Circle the correct numeric response to each question)

	Strongly Disagree	Disagree	Neither either or disagree	Agree	Strongly Agree
1. I found privacy and confidentiality are critical challenges of the transition to online learning.	1	2	3	4	5
2. I found blackboard violate user privacy even though it has several security features.	1	2	3	4	5

(3) Social Media (Circle the correct numeric response to each question)

	Strongly Disagree	Disagree	Neither either or disagree	Agree	Strongly Agree
1. My professors delivered teaching materials by using social media (WeChat/QQ) rather than Blackboard.	1	2	3	4	5
2. I communicated with my professors by using social media (WeChat/QQ) rather than Blackboard.	1	2	3	4	5
3. I communicated with my classmates by using social media (WeChat/QQ) rather than Blackboard.	1	2	3	4	5
4. I think that social media (WeChat/QQ) has an important role in improving students' academic performance.	1	2	3	4	5

(4) Traditional vs. Blended Learning (Future course preferences) (Circle the correct numeric response to each question)

A blended / hybrid form of learning is the combination of both face-to-face and online modes of learning.					
	Strongly Disagree	Disagree	Neither either or disagree	Agree	Strongly Agree
1. I think the blended approach is the preferred way to deliver education in the future.	1	2	3	4	5
2. I think the Entirely E-learning is the preferred way to deliver education in the future.	1	2	3	4	5
3. I think the Traditional learning is the preferred way to deliver education in the future.	1	2	3	4	5

(5) Institutional training (Circle the correct numeric response to each question)

	Strongly Disagree	Disagree	Neither either or disagree	Agree	Strongly Agree
1. I need for basic computer literacy course	1	2	3	4	5
2. I need for training in using computers and the internet for the online courses	1	2	3	4	5
3. I need for training to help receive my online course	1	2	3	4	5