Students' attitudes towards distance education: A comparative study between Sino-foreign cooperative universities and typical universities in China

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ABSTRACT

The global pandemic in Spring 2010 catapulted hundreds of universities worldwide into the realm of online education. Technological advancements over the last two decades had made online education viable but it was still a relatively small part of higher education.

For most students the move to online education was not a choice or an option but a necessity and their reactions will play an important part in strategic decisions made in higher education for years to come. It is important to understand their perception's and attitudes towards online education. The implications for Western universities with campuses in China are significant due to the vast differences in delivering US accredited course content online vs in person in China. Sino-foreign cooperative universities deliver Western curriculum courses in English thereby providing students with a different academic experience than typical Chinese universities. An exploration of whether the attitude of Sino-foreign cooperative university students and Chinese university students towards distance education is different is relevant at this time. Data was collected by an online survey completed by both students of typical Chinese universities and of Sino-foreign universities. The results suggest that students had a generally positive attitude towards distance education and that there were no significant differences in students' attitudes towards distance education as a function of the type of university they attend. The findings are of interest because if Chinese students prove receptive to online education in general, the type of opportunities for Sino-Chinese Universities are significantly changed.

Keywords: Online Education; Sino-Foreign university; Distance Learning, Pandemic impact.

1. INTRODUCTION

Distance education is typically a learning system with little to no in person interaction between teachers and students. Online learning on the other hand typically involves interactions between teachers and students using any of a variety of internet-based technologies facilitate student-teacher and student-student communication. It enables learners with the opportunity to engage in the education al process at any time and from anywhere, as long as they can access digital devices through the internet. Through distance education, open access to many universities' hybrid and large-scale interactive courses are provided to students from all over the world (Grandzol, 2006).

Previous studies have investigated both whether online learning could be an alternative for higher education, and teachers' perceptions towards distance education (2016)), and whether there were significant differences in students' attitudes towards distance learning due to gender, specialization, and academic level variable (Al-Fahad, 2009; Idrus and Lateh, 2000; Mahmoud Raba, 2016; Yang and Cornelius, 2004). Investigation towards attitudes to distance education in China has also been done (Tu, 2001; Van Raaij and Schepers, 2008; Yang and Cornelius, 2004). However, none of those studies have explored whether there are significant differences in students' attitudes towards distance education due to the types of universities.

No prior study examines whether there is a significant relationship between the types of universities that students are currently engaged in and their attitudes towards distance education. Instead, those studies gathered information from students at a certain university in a specific country. Most have focused on perceptions of students or on the effectiveness, accessibility, and results of distance education, which are also crucial aspects of the e-learning model. However, research comparing the perception of online education on Sino-foreign cooperative universities and Chinese universities appears to be a gap in the existing literature. Interesting research by Chen & Wang (2010) which was devoted to the study of online education in China did not explore the comparison between Chinese universities and the few Sino-Foreign universities but rather groups students from both types of universities into the same sample category.

The purpose of this study is to describe and compare the attitudes of students in Sino-foreign cooperative universities and students in Chinese universities in China towards distance education. The current attitudes of students towards this comparatively new form of curriculum will be explored in this study. More significantly, the results will be analyzed based on students' different academic backgrounds.

The cultural and interactive background of students play important roles in students' comprehension, especially when they are exposed to specialized information and information from international sources, including educational information (Gibbons, 2003). Globalization has been a driver in changes in all areas of life, including education and establishment of foreign cooperative institutions of higher education in China one of them. These universities, typically of a joint venture or cooperative nature between Chinese and foreign universities tend to be unique in some important ways, in particular the medium of instruction which is typically English. These universities are different from typical Chinese universities, which results in students' different academic experiences (Xiao, 2018). Their access to different online courses, their choices, and their perception towards distance education can also be different so it is important to explore their attitudes towards online education, which appears to be a gap in the exiting literature.

This study uses descriptive research design and cross-sectional study to investigate students' attitudes towards distance education. Independently paired t-test analysis was used for analyzing the results. After investigating 80 students from typical Chinese universities

and 76 students from Sino-foreign universities in China, the results suggest that students have a generally positive attitude towards online education, and that there are no significant differences in the attitudes of students towards online education based on whether they were studying in Sino-foreign universities or typical Chinese universities.

Prior studies investigated other variables including, gender, specialization, and academic year, but none of them explored types of university(Al-Fahad, 2009). Therefore, this study seeks to explore this new variable to the existing theory. This variable is important and relevant because, under the current trend of globalization, Sino-foreign cooperative universities in China have developed in a unique way both administratively in terms of curriculum and in delivery of educational content by faculty, typically in English and as such are a departure from the traditional form of higher education at Chinese universities. Parents and students are paying attention to these types of universities are indicated by the growth trajectory of applicants and enrollments in Sino-foreign universities (Liu, 2018). Therefore, in this article, the typical universities and Sino-foreign cooperative universities are deliberately identified for study and analysis. Adding this variable will improve the current theoretical framework of the studies on distance education in China. The practical utility of this study is the support strategic and administrative decisions made by existing universities as well as those seeking to offer or increase their offerings in the online education marketplace. If the results of the study show that there is a significant difference in the attitudes of students towards distance education between those attending Sino-foreign cooperative universities and those attending typical Chinese university students, then those institutions may make a difference in the distance education provided for this group of students. If this variable is an important influencing factor, universities may consider carefully the option of opening online courses for all students, instead, they may wish to carry out customized education according to the needs of different groups. Meanwhile, previous studies have also shown that students' intrinsic motivation has an impact on online education (Xiao and Zhang, 2017a). The same study found that students in Sino-foreign cooperative universities have different academic pursuits from students in typical Chinese universities. Therefore, their motivations as well as their perceptions could be different, which may also influence their attitudes towards distance education. These are the points that this study seeks to explore and where the contribution to the existing theory will occur.

The reminder of the paper is organized as follows. In the next section, relevant literature and will be reviewed the hypothesis is developed. Then the methodology used is described and the instrumentation and sample collection is explained. Finally, the results of the study are examined and relevant discussion is offered. In the final section, the conclusion is provided.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. Online Education

Online education, also known as distance education, distance learning, e-learning, and online learning is an emerging technology driven form of education. Its main characteristics include the physical separation of teachers and students in the teaching process and the use of various technologies to promote the communication between teachers and students, and between students and students. Traditionally, distance education has focused on students who cannot take in person courses in schools, these include students such as full-time workers, residents in remote areas, and individuals who are unable to attend lectures due to other personal reasons (Reed et al., 2015). More recently, as a result in advancements in technology and connectivity, distance education has morphed into online education. In

general, distance learning differs from online education slightly. Firstly, distance learning is often conducted by non-self-learning or academic learning institutions. It can be a kind of informal teaching, and traditional classroom instruction is not always provided, but they can be certified as comparable to those who engage in the traditional classroom method. Secondly, distance education can separate students and teachers geographically and temporally. Learning anywhere and anytime is an important advantage of this kind of education. A well-designed curriculum can also minimize intellectual, cultural and social differences among students. More recently, online education has come to mean that teachers and students can interact easily through the Internet. Interaction is essential for any kind of education, especially online education (Caliskan et al., 2017). For purposes of this study, due to the necessity for direct translation from English to Mandarin and back into English, the terms "online education" and "distance education" are used interchangeably.

With the development of telecommunication systems, the connection between learners, teachers and teaching resources is no longer dependent on real life communication. Therefore, the Internet, mobile phones and E-mail have contributed to the rapid growth of online learning. Finally, distance learning, like any education, provides students with a learning community, which consists of students, teachers, and teaching resources such as books, audio, video, and graphical displays all of which serve to enable students to access the content of instruction (Simonson et al., 2019; Visser et al., 2012). In addition to the practical, logistical aspects of sharing information and educational content into online education, current trends in online education seek to embrace some of the aspects of community building found in social media networks and promote the idea of community building as part of the online educational process (Jaggars, 2014; Young and Bruce, 2011) .

2.2. The Constantly Developing Trend of Distance Education

Sheeja (2011) contended that with the development of the knowledge-based economy, great changes have taken place in people's work conditions and the skills required. According that study, the biggest challenge to education is that this kind of economic development not only places strict requirements on the professional elite but also on the average worker. Traditional education itself is no longer suitable enough for society in its entirety. Traditional schools cannot provide the necessary education for adults who are already outside the school system. In this regard, governments must find new alternatives to enhance access, maintain or improve quality and cost-effectiveness, and equity in access to education. As a result of these changes in economic conditions combined with advances in technology, there are trends in both developed and developing countries towards the acceptance of online education as a new and effective method. Online education can provide knowledge for learners who are unable to access education from traditional classrooms for any of several reasons. Therefore, in most countries, online education has become an indispensable part of the education system. Worldwide, governments and government educational institutions as well as provide institutions have recognized the potential of open and online learning models. Significant changes in communication technology have also resulted in the development of distance education. All of these enable distance learning to provide students with the best and latest educational resources (Sheeja, 2011; Simonson et al., 2019). The greatest advantage of online education is that it makes it possible for everyone with internet connectivity to study regardless of their physical location, and that is a significant advantage (Picciano, 2016).

Berg and Simonson (2019) also found that the number of universities offering online education to the public has been increasing steadily as has the numbers of students enrolled in online education. The University of Phoenix in Arizona, founded in 1976, was one of the first schools to adopt online learning technology Kinser (2005) and while enrollments have

declined in recent years from a high of about 470,000 in 2010 to approximately 100,000 in 2016 (Deming et al., 2016).

Although comprehensive data showing international online education enrollment is not readily available, the student enrollment in online learning in two of the biggest online universities somewhat suggests how distance education has developed: at the beginning of the 21st century, in New Delhi, Indira Gandhi National Open University has more than 1.5 million students through remote course learning; in Beijing, the central radio and TV university's students number more than 500,000 (Simonson et al., 2019).

All these show that in today's learning-oriented society, online courses play an increasingly important role and are finding more acceptance (Berg and Simonson, 2016). There are several good reasons for students and institutions to accept online education not the least significant of which that through online learning, universities are almost infinitely scalable and can accommodate vast numbers of students without expanding their classrooms and dormitories. Not only do universities benefit, but students can also benefit from engaging in academic and learning related activities at a place and time of their choice (Berg and Simonson, 2016).

2.3. Sino-Foreign Cooperative University in China

With Chinese students' increasing demands for more diverse educational experiences, universities and colleges around the world are seeking to establish their campuses in China. Sino-foreign cooperative joint ventures (flexible legal partnership between Chinese entities and foreign companies) are good ways for foreign enterprises, including universities, to do business in China. As such, international universities have begun to build those kinds of partnerships to deliver cross-border education at all levels in China (Xiao, 2018). The first Sino-foreign cooperative university was the University of Nottingham, Ningbo China (UNNC), which was established in the fall of 2004. Following the path of UNNC, eight more Sino-foreign universities are, or have been operated in different areas of China. In 2014, the Sino-Foreign Cooperative University Union was established by those 9 universities, and they began to make their statements as a special interest group in Chinese higher education. Those universities provide foreign education experience for Chinese students in their own countries as well as in China. The courses provided by Sino-foreign cooperative universities typically use English as the medium of instruction while typical Chinese universities in China mostly use Mandarin in the classroom, or for those in the South, perhaps Cantonese.

The courses used by the Sino-foreign Universities are for the most part the same as those offered by foreign universities in their home countries and often culminate in the awarding of a degree from an accredited university outside of China (Zhuang and Tang, 2012). To ensure that the quality of teaching reaches the international level, faculty are recruited and hired or at a minimum are approved by the academic gatekeepers at the foreign universities. Of course, there are some requirements to adapt to China's local regulations and policies with regards to employment and work visas, and educational requirements. Sino-foreign cooperative universities are able to provide a more diverse educational experience for Chinese students and also welcome a more diverse group of students from outside of China. This results in a learning environment for Chinese and foreign students who desire to learn with their respective counterparts. When foreign students are looking for opportunities to study in China, Chinese foreign cooperative universities are usually their first choice because they offer courses taught in English (Xiao, 2018). Students gather different values and cultures in the classroom and provide a forum for students to discuss international issues, which make those Chinese students have a different outlook compared with ordinary Chinese students.

2.4. E-Learning in Chinese Schools and Universities

In their foundational work in this area Chen & Wang (2010) found the new practice of online education in China is taking place in two important areas: primary and secondary education (k-12), and higher education. Their research explored the development of online education in these two levels of education in China since 1996, as well as the educational use of radio, television, multimedia, satellite and Internet in China. Considered was the use of both real-time and non-real-time educational approaches as well as discussing the models and characteristics of online learning, student assessment system, quality assurance methods, and the policies of the Chinese government to regulate and support online learning.

The findings identified some of the problems and challenges of e-learning in China, including a lack of resources, lack of professional educators, inconsistent access to technology (connectivity) and a lack of standardization of methods. The necessary materials of distance education in China usually consist of three parts: video lectures, PowerPoint presentations and text resources. These media lack the important aspect of interaction between teachers and students, between students and other students, was found to frequently lack the guidance of teachers on students' learning skills and failed to meet students' various personalized needs. In other words, they suggested that students were not satisfied with those aspects and sought more interactivity and guidance in their courses and learning related activities.

2.5. Chinese Students' Responses about Distance Education Development and Design

According to Chen & Wang (2010) that most students engaged in online learning had an overall positive attitude towards the experience. However, they did think that some aspects of online education needed improvement. Students suggested that distance learning should include more practical exercises and give students opportunities to use multimedia training materials. They reported that the most convenient media for materials to be published are; audio, VCD and textbooks. Students reported a preference to learning from visual images (75%) and especially from animated materials (85%). Unfortunately, students in rural areas frequently cannot make full use of the extensive multimedia learning materials available due to limited access to electronic devices and/or limited access to connectivity, as a consequence, the effectiveness of online education depended somewhat on where the learners lived. Overall, as reported, the mixed medium approach suits the needs of adult learners well, making their study time and space flexible. A combination of online and face-to-face approaches was reported to meet the needs of most learner demographics, and in general, most students expressed dissatisfaction with the inflexibility of learning resources in online education. They noted a preference for rich instruction and participation in discussions.

In their survey Chen & Wang (2010) also found that many students reported that online learning needs to be improved in terms of independent learning, time management, resource processing, typing speed, and use of web technologies. They noted the importance of effective guidance in developing these areas. Learners also reported that they are pleased to use online resources to evaluate the courses. In conclusion, online universities in China were found to be struggling to meet the special needs of online education learners.

2.6. Hypothesis Development

The literature revealed that students' needs and perspectives towards distance education may be various and different due to their motivation and backgrounds (Mok and

Han, 2016). Xiao (2017b) reports that Sino-foreign cooperative universities' students' experiences were different from typical Chinese universities due to different language environments, thinking behavior and the different course structure systems that they engaged in. Thus, it could be inferred that students' academic background, whether they are from a Chinese university or Sino-foreign university might have an impact on their attitudes towards distance education, which was an aspect that has not been explored in the previous research. Therefore, the following two research hypotheses are formulated to answer the research question:

H1. There are significant differences in students' attitudes towards online education due to whether they are currently studying at a typical Chinese university, or a Sino-foreign University.

H0. There are no significant differences in students' attitudes towards online education due to whether they are currently studying at a typical Chinese university, or a Sino-foreign University.

3. METHODOLOGY

3.1. Research Objective

This study seeks to identify students' attitudes towards online education and whether there are significant differences due to students' engagement in different types of universities.

3.2. Research Questions of the Study

This study seeks to answer the following questions:

1) What is Chinese university students' general attitude towards online education?

2) Are there any statistically significant differences in the attitudes of students enrolled in typical Chinese universities and Sin-foreign universities?

3.3. Study Population and Sampling Techniques

The population of the study consisted of student enrolled in typical Chinese universities and students enrolled in Sino-foreign cooperative universities. The simple random sampling design was used in the study to allow equal chance for respondents to self-select and because the respondents' selection was not affected by other respondents. Nor was the selection process affected by researchers' personal bias.

3.4. Data Gathering Procedure

The data was collected through an online survey hosted on the platform of SO JUMP, an online survey software application. The link to the online survey was propagated via Social media including WeChat and QQ Zone. In addition to providing a platform and the application for the collection of data, SO JUMP provided the data formatting which was applied to the collected data to aid in the analysis.

3.5. Sampling

The samples of the study as indicated in Table 1 (Appendix), consisted of 80 students from typical Chinese universities, and 76 students from Sino-foreign cooperative universities

in China, the specific frequency and percentage is indicted. The samples were chosen randomly from the populations of university students attending both typical and Sino-foreign universities. A careful sampling approach was used to ensure that the breakdown of ordinary/ Sino-foreign cooperative universities' students was as closely balanced as possible.

3.6. Instrument of the Study

This study used a two-part self-constructed online questionnaire to collect data from respondents. Part I gathered the respondents' demographic profiles and Part II gathered data regarding respondents' attitudes towards distance education through a series of 14 questions. The questions were adapted from similar scales regarding description of perception towards distance education used by (Al-Fahad, 2009). For respondents to describe their perceptions, a Five-point Likert scale table towards attitudes was provided with the interpretations shown as Table 2 (Appendix). The highest rank is "strongly agree," and its response scale is 5, which falls into the mean interval 4.51-5.0. The lowest rank is "Strongly disagree," and its response scale is 1. This study aimed to identify typical Chinese University and Sino-foreign university students' attitudes towards distance education. Moreover, it sought to identify whether there were significant differences between the perceptions of those two groups of students. The data of the study were statistically analyzed and for the purpose of interpreting the findings of the study, the following percentages and ranks are showed in Table 3 (Appendix).

3.7. Reliability of the Instrument

This study used specific items or descriptions from a survey developed used in previous research on a closely related topic (Al-Fahad, 2009) Those items selected were adjusted and grouped into two categories: Descriptions about Distance Education and Descriptions about Distance Education Learner. The reliability of the newly developed questionnaire was tested using Cronbach Alpha, which tests the internal consistency among the test items. The standard criteria for the reliability of the items are showed below in Table 4 (Appendix). For the first group of items, students' attitudes towards distance education, the average covariance between item-pairs is 0.946, which suggests that the reliability of the results is excellent. The specific result is showed in Table 5 (Appendix). For the second group of items, the test result is showed in Table 6 (Appendix). Students' attitudes towards distance education learner, the Cronbach's Alpha is 0.888, which shows that the reliability of the result is good.

3.8. Statistical Analysis

To analyze the data gathered, the following methods are used:
1) Means and percentages
2) Independent paired t-test
3) One-way ANOVA
4) Cronbach Alpha Test for reliability

4. RESULTS

4.1. Results Concerning Students' General Attitude towards Online Education

To answer the first research question of the study, "What is Chinese university students' general attitude towards OE and OE learner?" statistical means, percentages and degree level for each description item and total degree for their agreement towards the items listed are shown in Table 7 (Appendix), as can be seen most students agree with the description of online education. Their overall quantitative numerical attitude is 3.62, which means that most of the descriptions were approved of by students engaged in the study. Total average means, percentage and descriptive interpretation: 3.62, 72.47% and "good," also shows that the general attitude towards online education is positive.

Some interesting trends can be found in the results. Students had somewhat neutral attitudes towards the description, "the learner in online learning is an independent learner who takes responsibility for his or her learning," "Online education enhances the learner's motivation" and "The relationship between students and the academic supervisor is a unique one". The percentages and degree levels of these which are relatively low compared with other items.

After breaking the whole items into two groups, Distance Education and Distance Education Learner, depending on their relevance, slightly different results appear in each group. Table 8 (Appendix) shows respondents' attitudes towards each item, and also indicates the percentage of each scaled response. It can be seen that the means have little difference with the general attitudes shown which indicates that the result of this group is consistent with the overall result.

The group of questions regarding student's attitudes towards the distance education learner are show in Table 9 (Appendix). The means are 3.5, lower than Table 8 (Appendix) and the scaled level for each item of this group is not as high as the other items in the Table. Attention should be addressed to some items such as "the learner in distance learning system is an independent learner who takes responsibility for his or her learning," which has lower means. However, most respondents answered "agree" compared with other attitude levels, which shows that respondents have a relatively positive attitude towards the distance education learner.

4.2. Hypothesis Testing

According to the independent T-test results, the hypothesis H-1: "There are significant differences in students' attitudes towards distance education due to different types of universities they are currently engaged in" is rejected. The hypothesis H-2 "There are no significant differences in students' attitudes towards distance education due to different types of universities they are currently engaged in" is accepted.

The 14-item survey was also divided into two groups for the independent T-test. The first group is students' attitudes towards distance education, and the independent T-test result is shown in Table 10 (Appendix). It shows that the significance is $0.65 > 0.05$, which means that there were no significant differences in students' attitude towards distance education due to type of university they were studying at. Also, the variance and means between ordinary university and Sino-foreign university is very similar. For the variance, they are all above 3.5, which falls into the group "agree."

For the second group of items, students' attitudes towards distance education learner, the independent T-test result is shown in Table 11 (Appendix). The significance is $0.98 > 0.05$, which indicates that there were no significant differences in students' attitudes

towards distance education learner due to type of university they were studying at. Also, the means and variance of both groups are very similar. Those results are partially consistent with the previous study that found out students' attitudes towards distance education were not related with some demographic or educational backgrounds (Kar et al., 2014).

5. DISCUSSION

5.1. Results Compared with Previous Research

For students' general attitude towards distance education, the percentage of response was 72% percent, the means are 3.62, and the descriptive interpretation is good. Therefore, the result is consistent with the research of Al-Fahad (2009), which suggests that students have a generally positive attitude towards distance education and that the majority of students were comfortable with distance learning. For the research hypothesis "There are significant differences in students' attitudes towards distance education due to different types of universities they are currently engaged in." For some specific items listed that have relatively low scores, possible reasons will be discussed. For the item "The learner in distance learning system is an independent learner who takes responsibility for his or her learning", the respondents who disagreed or had a neutral attitude may consider the influence of digital devices to be distracting when students have access to mobile phones or laptops. Also, since the course is provided by a distance education institution, students actually relied on the institution somewhat. Moreover, for the item "The relationship between students and the academic supervisor is a unique one.", students who did not agree may consider that students and their supervisor still need to communicate and interact similarly to a classroom setting, even though they are not face to face.

5.2. Results Compared with Expected Results

Based on previous related research, it was expected that this study would yield results indicating that students have a general positive attitude towards distance education. From the study of Al-Fahad (2009), it is suggested that the total reliability degree for the questionnaire was good, and that the percentage of responses at 72%, shows that students' attitudes towards e-learning was very high. Additionally, the work of Chen and Wang (2010) also showed that students have generally positive attitudes towards distance education. The result of this study is expected to be consistent with the previous studies. However, since this study also investigates the impact of types of universities in China on students' attitudes, which has not been explored by other researchers and both builds on the previous work and adds a new dimension.

5.3. Possible Explanation

As addressed by Xiao (2017a) students in Sino-foreign universities generally had a different academic background than students in ordinary universities. However, this study found that they did not have significantly different attitudes towards distance education due to their different academic experiences. Moreover, in seeking to understand why there were no significant differences between Sino-foreign university students and ordinary university students, it is very possible that the type of university they were currently engaged in did not affect their study or learning style and did not affect their attitude towards different education style, therefore their general attitude towards e-learning did not vary between the two groups of respondents.

Based on the study, some issues are notable. For examples some students had a skeptical attitude towards whether distance education could enhance their learning motivation. According to research in that area, distance education did have some drawbacks including distraction and low efficiency(Valentine, 2002). Additionally, the learning environment should to be enhanced and enriched in a distance education system with consideration paid to task variety, task identity, task significance, autonomy, and feedback all as part of the learning process. Research in this area found that students who have higher levels of motivation to learn also have higher levels of satisfaction with the educational process, and, higher quality performance in a distance education system(Hannay and Newvine, 2006). The interaction of these findings poses several questions and offers fertile ground for future research in to the various factors of distance education.

6. LIMITATIONS OF THE STUDY

This study has some limitations. Since the study only investigated 156 respondents for analyzing student's attitudes towards distance education, the sample is relatively small and may not reveal the accurate relationship between the independent variable, types of university that students are currently studying in, and the dependent variable, students' attitudes towards distance education. In addition, since most of the respondents for the group Sino-foreign university were from the same Sino-foreign university, the result may not be generalizable to all Sino-foreign universities and therefore could not be inferred to accurately represent the population of all Sino-foreign university students.

Moreover, since this study used surveys to collect information, the investigator did not have direct contact and connection with the respondents and could not ensure that each questionnaire was carefully and thoughtfully answered by the students after serious consideration. This could also lead to errors in the study. At the same time, as a quantitative method was used, and in seeking to keep the survey brief to avoid incomplete responses, the survey did not include open-ended questions resulting in a lack of exploration of the deep-seated reasons behind students' responses and point of view. It was not possible within the scope of this study to explore other more complex questions about distance education. Alone, this study is not sufficient to definitively explaining the reasons for students' attitudes towards distance education.

6.1. Reliability and Validity of the Results

As this study relied upon an online survey to collect the data, no direct contact was established with the participants, therefore, the study is free from researcher bias. The data was collected over the Internet, not directly from respondents, so the results are not affected by researcher error such as bias or interpretation. The survey was randomly spread among students at universities in an effort to avoid participant bias. The research validity, both internal and external validity is good as shown in the results section. Previous studies suggest that there might be some effect of the independent variable on students' experiences resulting in their differing perspectives which serves as the rational for the assumption in this study. Since the respondents were randomly chosen from university students all over China, this result could be generalized to all population.

7. THEORETICAL CONTRIBUTION

Prior studies investigated the variables of, gender, specialization, and academic year, but none of them explored types of university (Al-Fahad, 2009). This study added a new and

underexplored new variable to the existing theory. This variable is important due to current trends of globalization, including higher education and specifically Sino-foreign cooperative universities in China. Sino-foreign universities in China have developed in a unique way from other universities and parents and students are paying attention to their current situation (Xiao and Zhang, 2017a). Therefore, in this study, the typical universities and Sino-foreign cooperative universities are deliberately identified for analysis. Adding this variable will improve the current theoretical framework of the studies on distance education in China. The practical utility of the study is that it will raise the distance education institutions attention to students' academic backgrounds. It is in these areas where this article will make contributions to the existing theory. While the results show no significant differences in students' attitudes towards distance education due to the types of university they attend the relationship is still worth of exploration and of further exploration as due to the limitation mentioned above, additional research on the topic after addressing the limitation of this study may reveal more or differing findings.

8. CONCLUSION

This study described and compared students' attitudes towards distance education between ordinary universities and Sino-foreign cooperative universities in China. According to the findings of the study, students participating in the study mostly had positive attitudes towards distance education which was consistent with previous studies. Most of the students responded "Agreed" to the descriptions towards Distance Education and Distance Education Learner, which was interpreted as "good". Therefore, the overall level of students' satisfaction towards distance education was "Agreed", which is also interpreted as "good". The results of the descriptive and comparative analysis revealed that there was no significant difference in attitudes towards distance education between ordinary university and Sino-foreign university students in China.

Students' evaluated in this study were mostly classified as having positive perceptions of distance learning, but there was no significant difference due to the type of university attended variable. The majority of both ordinary university and Sino-foreign university students agreed with the descriptions towards distance education provided. There were no significant differences in attitudes towards distance education between Sino-foreign university students and ordinary university students in China. The hypothesis "There are significant differences in students' attitudes towards distance education due to different types of universities they are currently engaged in.", is rejected. The hypothesis "There are no significant differences in students' attitudes towards distance education due to different types of universities they are currently engaged in.", is accepted.

Further study is needed to find out why students general attitudes towards distance education is almost the same. Additional research could also seek to ascertain the principal effectors that influence students' decision on choice of devices to use for distance learning if they are taking an online course. For the purpose of exploring students' attitudes towards distance education based upon type of university a wider range of university types should be investigated. More description items could be used in further studies for example in addition to simply asking students what they think about distance education, future studies can also explore students' views on different courses of distance education as well as questions about the courses and staffing that students think are most appropriate and suitable, as well as other more specific aspects of distance education. At the same time, scholars can explore the deeper reasons behind student's opinions and perspectives.

Finally, further exploration into a related topic could focus on the perceptions and attitudes of educators' attitudes towards distance education to build on the work of others

including Nasser and Abouchedid (2000), and whether there are significant differences due to their profession. Moreover, the field in distance education of other levels of learning such as middle schools can be explored.

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APPENDIX I

Tables and Figures

Table 1 Sample Distribution Types of University

Types of University	Frequency	Percentage
Typical Chinese University	80	48.72%
Sino-Foreign University	76	51.28%
Total	156	100%

Table 2 Likert Scale Distribution

Rank	Percentage
Very poor	Below 50%
Poor	50-59.9%
Medium	60-69.9%
Good	70-79.9%
Very Good	80% and more

Table 3 Percentages and Rankings

Rank	Percentage
Very poor	Below 50%
Poor	50-59.9%
Medium	60-69.9%
Good	70-79.9%
Very Good	80% and more

Table 4 Criteria of the Reliability

Cronbach's Alpha	Internal Consistency
α>=0.9	Excellent
0.9 >α>= 0.8	Good
0.8 >α>= 0.7	Acceptable
0.7 >α>= 0.6	Questionable
0.6 >α>= 0.5	Poor
0.5 >α	Unacceptable

Table 5 Reliability Analysis First Group of Items

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.946	.946	9

Table 6 Reliability Result of the Second Group of Items

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.888	.889	5

Table 7 Means, Percentage and the Degree Level for Each Item

Item No.	Distance Education	Means $\bar{X}$	SD	Scaled Responses	%	Descriptive Interpretation
1	A large number of students can join the distance learning system.	3.76	1.098	Agree	75.20	Good
2	DE is flexible.	3.83	1.125	Agree	76.60	Good
3	DE uses educational technology at a wide range.	3.83	1.071	Agree	76.60	Good
4	DE enhances the learner's motivation.	3.34	1.081	Agree	66.80	Medium
5	DE offers a good opportunity to the learner to choose the major, the time and the way of studying.	3.76	1.096	Agree	75.20	Good
6	DE employs modern technology that attracts learner's attention.	3.56	1.097	Agree	71.20	Good
7	DE overcomes geographical distances.	3.91	1.166	Agree	78.20	Good
8	DE offers specialized knowledge and skills.	3.58	1.060	Agree	71.60	Good
9	DE enables students in remote areas to pursue higher education.	3.66	1.133	Agree	73.20	Good
10	The learner can evaluate his or her learning due to pre-assigned objectives.	3.53	1.044	Agree	70.60	Good
11	The learner in distance learning system is an independent learner who	3.33	1.143	Neutral	66.60	Medium

	takes responsibility for his or her learning.					
12	It is essential to be daily in contact with the academic supervisor in distance education.	3.67	1.096	Agree	73.40	Good
13	The interaction between students in distance education promotes their experience.	3.51	1.081	Agree	70.20	Good
14	The relationship between students and the academic supervisor is a unique one.	3.46	1.062	Neutral	69.20	Good
General Attitudes towards Distance Education		3.62	.352	Agree	72.47	Good

Table 8 Scaled Response Descriptions for Students' Attitudes towards Distance Education

Descriptions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Means
A large number of students can join the distance learning system.	9(5.77%)	11(7.05%)	30(19.23%)	65(41.67%)	41(26.28%)	3.76
DE is flexible	10(6.41%)	11(7.05%)	21(13.46%)	68(43.59%)	46(29.49%)	3.83
DE uses educational technology at a wide range	10(6.41%)	7(4.49%)	23(14.74%)	75(48.08%)	41(26.28%)	3.83
DE enhances the learner's motivation	10(6.41%)	19(12.18%)	59(37.82%)	44(28.21%)	24(15.38%)	3.34
DE offers a good opportunity to the learner to choose the major, the time and the way of studying	10(6.41%)	10(6.41%)	26(16.67%)	71(45.51%)	39(25%)	3.76
DE employs modern technology that attracts learner's attention	12(7.69%)	11(7.05%)	37(23.72%)	69(44.23%)	27(17.31%)	3.56
DE overcomes geographical distances	11(7.05%)	7(4.49%)	26(16.67%)	53(33.97%)	59(37.82%)	3.91

DE offers specialized knowledge and skills	10(6.41 %)	11(7.05 %)	41(26.28%)	67(42.95 %)	27(17.31 %)	3.58
DE enables students in remote areas to pursue higher education	10(6.41 %)	15(9.62 %)	30(19.23%)	64(41.03 %)	37(23.72 %)	3.66
Total	92(6.55 %)	102(7.26 %)	293(20.87 %)	576(41.03 %)	341(24.29 %)	3.69

Table 9 Scaled Response Descriptions for Students' Attitudes towards Distance Education Learner

Descriptions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Means
The learner can evaluate his or her learning due to pre-assigned objectives.	10(6.41 %)	12(7.69 %)	43(27.56%)	68(43.59 %)	23(14.74%)	3.53
The learner in distance learning system is an independent learner who takes responsibility for his or her learning	13(8.33 %)	20(12.82 %)	50(32.05%)	48(30.77 %)	25(16.03%)	3.33
It is essential to be daily in contact with the academic supervisor in distance education	9(5.77%)	14(8.97 %)	31(19.87%)	67(42.95 %)	35(22.44%)	3.67
The interaction between students in distance education promotes their experience	8(5.13%)	21(13.46 %)	36(23.08%)	65(41.67 %)	26(16.67%)	3.51
The relationship between students and the academic supervisor is a unique one	10(6.41 %)	14(8.97 %)	50(32.05%)	58(37.18 %)	24(15.38%)	3.46

Total	50(6.41 %)	81(10.38 %)	210(26.92 %)	306(39.23 %)	133(17.05 %)	3.5

Table 10 T-test Results Attitudes Towards Distance Education by-Type of University

Distance Education	Ordinary University
Mean	3.725
Variance	0.844186592
Observations	80
Hypothesized Mean Difference	0
df	153
t Stat	0.453090104
P(T<=t) one-tail	0.325562877
t Critical one-tail	1.654873847
P(T<=t) two-tail	0.651125754
t Critical two-tail	1.975590315

Table 11 T-test Results Attitudes Towards Distance Education Learner by Type of University

Distance Education Learner	Ordinary University	Sino-Foreign University
Mean	3.5	3.502631579
Variance	0.745316456	0.896526316
Observations	80	76
Hypothesized Mean Difference	0	
df	151	
t Stat	-0.018111021	
P(T<=t) one-tail	0.492787097	
t Critical one-tail	1.655007387	
P(T<=t) two-tail	0.985574195	
t Critical two-tail	1.975798924	

APPENDIX II

Research Instrument
Survey: Students Attitudes towards Distance Education
1. What is your gender?

a. Male	52
b. Female	104

2. What type of university are you studying at?

a. Ordinary University	80
b. Sino-Foreign University	76

3. Please describe your attitude towards the following descriptions towards distance education.

Item	Distance Education	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	A large number of students can join the distance learning system.					
2	DE is flexible.					
3	DE uses educational technology at a wide range.					
4	DE enhances the learner's motivation.					
5	DE offers a good opportunity to the learner to choose the major, the time and the way of studying.					
6	DE employs modern technology that attracts learner's attention.					
7	DE overcomes geographical distances.					
8	DE offers specialized knowledge and skills.					
9	DE enables students in remote areas to pursue higher education.					

10	The learner can evaluate his or her learning due to pre-assigned objectives.					
11	The learner in distance learning system is an independent learner who takes responsibility for his or her learning.					
12	It is essential to be daily in contact with the academic supervisor in distance education.					
13	The interaction between students in distance education promotes their experience.					
14	The relationship between students and the academic supervisor is a unique one.					