

Exploring Online College Students' Satisfaction with Distance Education During the COVID-19

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Abstract

Because of the unexpected COVID-19 pandemic, most universities have successively launched emergency distance education. Consequently, this special project report will focus on the university students' level of satisfaction with distance education during the COVID-19 pandemic. This is because the level of satisfaction among college students with online distance teaching and learning during the pandemic is likely to affect these students' learning outcomes and academic performance. Therefore, this special project report aims to explore the college students' satisfaction level with distance education due to COVID-19 and draw implications from the results. Firstly, it reviews several empirical studies and relevant theoretical discussions concerning students' satisfaction with online distance education during the COVID-19 pandemic. Secondly, it reviews and analyzes the factors that influence students' satisfaction with online distance education. Then, based on the review of the research results and views of previous scholars, this project will draw some implications on online distance learning. At the end of this paper, the limitations of this research will be described.

Keywords: distance education, satisfaction, college students, COVID-19, factors

1. Introduction

Since 2019, the novel coronavirus pandemic has gradually spread throughout the world. On February 11, 2020, the World Health Organization designated COVID-19 as a novel coronavirus pneumonia (Wu, Chen, & Chan, 2020; Team, 2020), in which 'CO' is the abbreviation of corona, 'VI' refers to virus, and 'D' stands for disease, which refers to pneumonia caused in 2019 by a novel coronavirus infection. A novel coronavirus is a coronavirus strain that has never been found in humans before (Biswas, Bhattacharjee, Chakrabarti, Tewari, Banu, & Dutta, 2020). According to McIntosh and Perlman (2015), coronavirus is a large virus family, and common symptoms of coronavirus infection include respiratory symptoms, fever, cough, shortness of breath, and dyspnea. In severe cases, infection can result in pneumonia, severe acute respiratory syndrome, renal failure, and even death. Furthermore, the transmission characteristics of novel coronavirus are likely to be high infectivity and high concealment (Li et al., 2020; Shi et al., 2020; Fedson, Opal, & Rordam, 2020). In such a severe global challenge and environment, many industries have been affected, such as the catering industry and tourism, and the education system has inevitably suffered great challenges (Pham, Dwyer, Su, & Ngo, 2021; Yazgan, 2022).

At present, due to the COVID-19, there are many universities that have transformed their teaching mode from traditional face-to-face instruction to online distance teaching. This means that tens of thousands of college students have learned online since the COVID-19. Consequently, distance education is likely to be popular in the educational field at present (Mathew, & Chung 2020; Williamson, Eynon, & Potter, 2020). In terms of distance education, Moore (1991) defines "distance learning" as "the teaching process of teachers and the learning process of learners." As a result, distance education is a more accurate and inclusive term. Distance education is typically associated with educational projects. Furthermore, Moore (1991) also emphasizes that distance education refers to a comprehension and perception of distance due to geographical distance, not simply the

geographic separation of students and instructors. To learn effectively and systematically, teachers, students, and educational organizations must bridge the gap between understanding and perception.

According to Bakhov, Opolska, Bogus, Anishchenko, and Biryukova (2021), many countries launched emergency distance education during the COVID-19. Therefore, this special project report will analyze and review the relevant literature on college students' satisfaction levels with online distance learning during the COVID-19 pandemic to better understand and examine university students' sense of experience and attitudes towards distance education during the COVID-19, so that distance education can better serve college teaching in the future. As Agbanu, Sonyo, Region, and Ahiase (2018) mentioned, understanding and investigating students' satisfaction level with online distance learning is a critical component of promoting a successful educational process.

2. Definitions of Key Terms

Distance education: There have been significant changes in the field of distance education over the last decade. Distance education is a method of structured learning in which learners and instructors are separated in time and space, and it is one of the fastest-growing forms of education all over the world (Gunawardena & McIsaac, 2013; Boling & Robinson, 1999). In fact, distance education is commonly understood as educators using various multimedia, the Internet, and other media to teach, breaking down time and space barriers, and spreading knowledge, culture, or information. It was once thought to be a type of special education that used non-traditional delivery methods, but it is now a key concept in the mainstream field of education (Saykili, 2018). According to Gunawardena and McIsaac (2013), distance education encompasses many different types of learning, including distance learning, open learning, network learning, flexible learning, distributed learning, and interconnected space learning. Its definition varies depending on each country's distance education culture, but on the fundamental principles, there is some agreement. Distance education is frequently regarded as a planned learning experience that can take place outside of academic institutions, at home, or in the workplace. Furthermore, distance learning typically provides courses that lead to a degree or certificate. For example, as an alternative to traditional attendance, American colleges and universities offer existing courses through distance learning programs. Distance learning strategies used by British educators are referred to as feasible or open learning (Gunawardena, & McIsaac, 2013).

Emergency distance education (EDE): The coronavirus disease pandemic in 2019

(COVID-19) has led to the urgent shift in education at all levels from traditional face-to-face education to online distance education, known as emergency distance education. EDE can be regarded as the immediate transformation of instructional delivery to a different mode as a result of disaster conditions (Hodges et al., 2020).

Expectation Confirmation Theory (ECT): Expectation Confirmation Theory is an intellectual hypothesis that attempts to clarify that after-purchase or acceptance satisfaction is a component of desire, execution, and belief uncertainty (Oliver, 1980). In this regard, satisfaction of desire will result in positive changes in determination. In the expectation-confirmation theory (ECT), satisfaction is the important motivator for continuing to buy the service or product (Oliver, cited in Tahir, Waggett, & Hoffman, 2013; Chou, Min, Chang, & Lin, 2010). The four ECT principles are: expectation, perceived performance, uncertainty, and fulfillment.

Satisfaction in the context of this project: Satisfaction can usually be considered an emotional evaluation of various outcomes, but also applies to views that are considered cute or disturbing (Alzahrani & Seth, 2021). In the context of this project report, it can refer to the online language learners' attitude and the sense of experience of distance learning. Specifically, learners' satisfaction in the context of this special project report refers to learners' experience and views on the emergency online teaching adopted by schools, teachers, and staff during the COVID-19 pandemic (Almusharraf & Khahro, 2020). In fact, Almusharraf and Khahro (2020) also point out that the unexpected COVID-19 pandemic may have affected students' overall gratification level of online education. However, the students' satisfaction level with the online learning environment may directly influence their academic achievement and learning efficiency to some extent. Consequently, it is particularly important to examine learners' sense of experience and satisfaction with emergency distance education during the pandemic. Students' satisfaction with online learning is mainly affected by students' expectations of online learning space and time, the roles of classmates and teachers, and self-motivation. Students' satisfaction may finally depend on the integration of students' expectations of these aspects with the overall educational and life goals of students' learning courses (Landrum et al., 2021).

Self-determination theory (SDT): According to Adams, Little, and Ryan (2017), there are three basic psychological needs that can affect students' learning, including students' competence, autonomy, and relatedness (Adams, Little, & Ryan, 2017). In terms of autonomy, Polona Gradišek and Alenka Polak (2021) point out that the majority of students may lack independence due to unfamiliar online learning processes, even

though distance learning can help them be more self-sufficient in scheduling their own time. Additionally, students' competence may also be affected in distance education because online learners are likely to face challenges and difficulties in distance learning (Mohamedhosein & Crul, 2018; Rovai, 2003). Online educators usually provide online learning resources for learners via various online campus platforms. This means online students need to master relevant online learning skills. However, some students are likely to have challenges accessing the online class or using relevant online learning materials. Additionally, whether students can succeed in their studies is likely to be largely affected by whether they successfully integrate into the new learning and social environment (Zins, Bloodworth, Weissberg, & Walberg, 2007; Tinto, 1993). Therefore, online students can attend lectures on distance learning organized by universities to learn and master the relevant online learning skills.

Social cognition theory (SCT): Social cognition is defined as a cognitive field involving social information perception, processing, and interpretation as well as a discrimination space including observing, comprehending, and processing social data (Penn et al., 1997). In 1986, social cognition theory evolved from Bandura's social learning hypothesis, and learning is assumed to take place in a social context, with changing and corresponding exchanges between individuals, conditions, and behaviors. Social cognition theory is distinct in that it places a premium on social impact and social support (Bandura, 1977). The theory considers the unusual ways in which people acquire and develop behavior, as well as the social contexts in which they exercise this behavior. This assumption also considers individuals' prior experiences, which determines whether certain social activities will occur in the future. These prior experiences will influence defenses, hopes, and desires, all of which will influence whether or not individuals will engage in specific behaviors and the reasons for their participation (Bandura, 1977).

3. Rationale and Aims of the Project

Based on previous research findings, previous scholars have paid more attention to the benefits and convenience provided by distance teaching and learning to instructors and learners, but have ignored the importance of students' satisfaction with online distance education. Although some scholars have focused on the challenges and problems brought by distance education to instructors and students, there is no comprehensive examination of students' potential dissatisfaction and negative encounters with distance education.

However, students' satisfaction and sense of experience often had a direct impact on the effect of online distance education and may also have a direct impact on students' academic performance. Therefore, this special project report pays attention to the college students' satisfaction levels with distance education during the COVID-19 pandemic. In other words, many universities have changed from traditional face-to-face education to online distance teaching. Consequently, it is necessary to understand whether university students are satisfied with online distance learning or not because this may affect these college students' learning experience and academic achievement.

As a result, this literature review aims to review the existing literature and studies on the satisfaction level of online college students in distance online teaching and learning during the pandemic to better understand the problems and challenges existing in the emergent online education, so that online distance education can be better carried out in college education in the future to better serve university students' learning.

4. Research Questions

Given that the majority of university students need to learn via online distance education during the pandemic, student satisfaction with distance education is critical during this period because it may directly affect students' academic achievements and learning effects. As a result, the following two research questions need to be addressed:

- 1) How satisfied are college students with distance education during the COVID-19 pandemic?
- 2) What factors may influence these college students' satisfaction level with online education during the pandemic?

5. Research Process

As a matter of fact, I was influenced by the COVID-19 when I was working on this project, so I could not finish my master's research on campus but did it online. In fact, due to the impact of the pandemic, I studied my master's course online this year. Therefore, I have a strong interest in studying online education. This is because I want to know whether the students who studied online during the pandemic like me face the same challenges as me. First of all, I conducted extensive reading and online learning. All the literature comes from famous journals and books, such as Computer-aided Language Learning, Language Teaching, and Applied Linguistics, etc. This huge scope ensures high-quality resources. Collecting relevant documents from university libraries is a reasonable way. After reading the collected materials, I have mastered the broad knowledge about the online

distance learning environment, and there is one topic that arouses my interest, which is distance education. Considering that the topic is about distance education, the literature searched is aimed at two key aspects. One key aspect is the benefits of distance education to learners, and another one is the problems and challenges of distance education to learners. I immersed myself in historical and current materials about my topic. Additionally, in order to better answer the research questions, I also sorted out and synthesized the relevant literature and empirical evidences.

6. Empirical Evidence and Related Theoretical Discussion from the Literature Answers Related to Research Question 1: How Satisfied Are College Students with Distance Education During the COVID-19 Pandemic?

It is likely to be very significant to know whether learners are satisfied with the distance education launched in an emergency during the pandemic, because it is likely to directly affect students' online learning effect and academic performance.

There are some empirical studies that have found college students are satisfied with distance education. The research by Qureshi, Khawaja, and Zia (2020) investigated the online teaching experience of Adult Undergraduates in private higher education establishments in southern England during the period of COVID-19. The research results show that most students are excited about online teaching and hope to continue online distance education after COVID-19 because it offers convenience and comfort, no expense and travel time. In addition, the research also shows that the decision to quickly switch to online teaching is correct.

Similarly, the study by Girik Allo (2020) also shows that students' attitudes towards distance education during the COVID-19 pandemic are optimistic and positive. In addition, Chung and Mathew (2020) carried out a survey on online education satisfaction of 608 online learners randomly selected from several campuses in Malaysia. The survey results show that 60% of the respondents are satisfied with their online learning, mainly female students and degree students. Additionally, according to Elshami et al. (2021) research on the factors affecting students' satisfaction with online education, the research data show that the general satisfaction of learners is 41.3%. Furthermore, the research also found that the areas with the highest satisfaction of students are communication and flexibility.

However, there are previous studies that discovered that students are dissatisfied with distance teaching and learning. The research by Maqableh and Alia (2021) assessed the impact of the shift from face-to-face learning to distance learning on undergraduates during the pandemic, and the results show that more than 30% of the participants are not satisfied with their distance learning experience during the pandemic. Additionally, Ansar, Ali, Khattak, Naveed, and Zeb (2020) investigated the views of undergraduate students from different disciplines in Pakistan on online learning, and the research data show that 78% of students are dissatisfied with online learning. Most students prefer traditional classroom teaching, and 81% of the research participants do not want to keep distance e-learning. The results show that students are not satisfied with distance learning, and they highlight some critical flaws in the online education system. Similarly, the research by the research by Xiong, Jiang, and Mok (2020) conducted a survey on the online learning experience of college Students in Hong Kong during the pandemic. The research shows that only 27% of the university students are satisfied with their distance learning experience during COVID-19, and more than 60% of the respondents believe that the learning effect of online courses is not as good as that of face-to-face courses.

In addition, Himat, Takal, and Hakimi (2021) investigated the satisfaction of Afghan students with online learning in COVID-19. The results also show that most students were dissatisfied with distance education. This is because compared with the traditional classroom environment, learners cannot learn from online education, that is, learners cannot learn based on the Internet through computers or smart phones, and students do not like web-based learning. In addition, Yekefallah, Namdar, Panahi, and Dehghankar (2021) studied and determined the factors influencing students' satisfaction with distance learning during the pandemic, taking students in different fields of Ghazvin Medical University as examples. The results show that nearly 60% of the students are dissatisfied with e-distance learning.

As a result of reviewing relevant literature, it appears that college students' satisfaction level with online distance education during the COVID-19 pandemic is complicated. This means that the majority of students are likely to believe distance education has both advantages and disadvantages. However, during the pandemic, most college students are likely to be dissatisfied with online distance education because of a variety of factors such as network problems, psychological problems, or operational problems, etc. This will be discussed in detail in the following section.

7. Answers Related to Research Question 2: What Factors May Influence These College Students' Satisfaction Level with Online Education During the Pandemic?

When college students are satisfied or dissatisfied with online courses, it is important to understand what factors

in online courses lead to these students' satisfaction or dissatisfaction. This is because understanding the factors that affect students' satisfaction with online education can help online educators further improve and adjust online teaching methods and activities to better meet students' specific online learning needs (Yekefallah, Namdar, Panahi, & Dehghankar, 2021). As a matter of fact, there are various factors that can affect the online learners' satisfaction of distance e-learning (Almusharraf & Khahro, 2020; Yekefallah, Namdar, Panahi, & Dehghankar, 2021).

7.1 Multimodal Online Delivery of Courses

According to Almusharraf and Khahro (2020), college students' high satisfaction with online learning during the pandemic may be caused by several reasons. One is multimodal online delivery of courses, such as video, audio, PowerPoint slides, quizzes, and games. Similarly, the study by Don (2005), which analyzed the characteristics of effective online courses, also found that one of characteristics in excellent online courses is the application of audio and video. This means that students' online learning experience may be good when the teacher applies the audio and video in the classroom, so that students' satisfaction level with online courses may also be affected. Additionally, Pérez-Marín, Paredes-Velasco, and Pizarro (2022) also mentioned that multi-mode digital teaching method can improve college students' satisfaction with online education and learning efficiency.

7.2 Instructors' Guidance and Support

In addition, Almusharraf and Khahro (2020) point out that the support and guidance of the lecturers and instructors are also one of the reasons that cause the college students' high satisfaction with online education, such as one-to-one feedback, learning inclusiveness, and understanding of specific situations. Similarly, Don (2005) also mentions that the instructor's clear guidance is one of characteristics of effective online language courses, which means that the clear guidance is significant to the effective distance language teaching. This is because students' online learning outcomes and effects may be improved if the teachers can provide the clear guidance in online distance language teaching. Then, these students' satisfaction levels may be increased.

However, the study by Surahman (2020) also found that the low degree of attention and guidance given by lecturers is likely to cause college students' dissatisfaction with the online education. Similarly, Ajmal, M., Arshad, M., & Hussain, J. (2019) also point out that the quality of feedback and guidance provided by teachers in online distance education is likely to also affect students' satisfaction with online education. As Rios, Elliott, and Mandernach (2018) pointed out, online course design should contain clear guidance and constructive feedback.

7.3 Course Participation

According to Almusharraf and Khahro (2020), the level of course participation is also a factor leading to students' high satisfaction with online education, such as active classes and lectures. Similarly, the research by Don (2005) also found that the characteristics of the effective online courses include the good interaction and communication between instructors and learners and the cooperation and interaction between students, which also means that the active classroom environment can increase students' satisfaction with online distance education. This is because providing positive and interesting classroom teaching environment or various classroom activities for students can make these students more actively participate in the classroom to improve their sense of participation in online learning to increase their satisfaction levels with distance learning. As Almusharraf and Khahro (2020) mentioned, various online teaching methods of instructors may also lead to high satisfaction of students with online learning, such as positive learning opportunities, presentations, games, group and individual discussions. Therefore, the factors affecting students' satisfaction with online learning are complex and diverse.

7.4 Internet Accessibility

There are also many empirical studies that have investigated and determined the reasons for college students' dissatisfaction with online distance education. The study by Surahman (2020) investigated learners' satisfaction with distance learning services in higher education and found that one of the factors causing these learners' dissatisfaction with online distance teaching and learning is limited Internet accessibility. Similarly, the research by Girik Allo (2020) also discovered that the Internet accessibility problem is one of factors which can affect college students' satisfaction with distance education. As Girik Allo (2020) points out, in terms of the availability of the Internet, students state that they would like to do group projects to assist friends who may not have access to the Internet.

7.5 Operational Skills

In addition to network access problems, Girik Allo (2020) also mentions that college students are likely to have difficulties using online learning materials provided by educators in online education. In other words, students may have operational problems in online learning, which may also affect students' satisfaction level with online

distance education. This is because when students are unable to use online learning resources effectively or have difficulties in using them, their enthusiasm for online learning may be reduced, and this even can affect their academic performance. Consequently, this may lead to a reduction in their satisfaction with online distance education. As a result, the students hope that the teacher can explain the online resources or assignments and can use voice notes effectively while giving instructions (Girik Allo, 2020). Similarly, Elshami et al. (2021) also found that the technical operation problems or difficulties of online learning are likely to lead to the decrease of college students' satisfaction in the study of factors affecting students' satisfaction with online learning. Hara (2000) also claims that a very important reason for students' dissatisfaction and frustration with online education is the technical problems.

Without technical support, online learners will feel particularly depressed (Hara, 2000).

Additionally, Chen et al. (2020) also mention that in distance education, technical operation problems are the main factors that influence learners' sense of experience in distance learning and lead to students' dissatisfaction with distance learning. Moreover, Lysytsia, Byelikova, Martynenko and Prytychenko (2021) point out that students' adaptation to the effective use of computers for digital learning is likely to affect their satisfaction and experience of distance learning. Furthermore, Sumarna, Kansil, and Hamid (2020) also found that the use and selection of online learning platforms also have a significant impact on the satisfaction levels of college students in the southeast Sulawesi islands during the outbreak of novel coronavirus disease. The study also found that compared with other modes, the online learning platform combined with Zoom + Google classroom + WhatsApp application has become the main choice for college students' online learning. Therefore, the difficulty of using and operating online learning resources and platforms may also affect students' satisfaction with online distance education.

7.6 Distraction and Reduced Attention

The study by Maqableh and Alia (2021) also investigated students' online learning experience during the pandemic to explore and determine the reasons for students' dissatisfaction. The results show that one of important factors of students' dissatisfaction in the process of online learning is distraction and reduced attention. Similarly, the study by Nambiar (2020) also found that easily distracted at home is one of factors that may lead students to be dissatisfied with online education and think that online courses lack quality.

In addition, Pillay, Irving, and Tones (2007) also point out that one of the reasons why online students are dissatisfied with distance learning is that these students feel easily distracted by other online content. In like wise, Omar, Hassan, Arsad, Ismail, Jamaluddin, and Jusoh (2021) also report that students believe that they are distracted by other things or disturbed by other things on the Internet during their online learning. Consequently, the students' distraction problems are one of factors which may affect online college students' satisfaction level with online distance education.

7.7 Psychological Problems

In addition to the distraction problems, Nambiar (2020) also points out that lack of class motivation and interest is another factor that can influence online students' satisfaction level with online distance education. Similarly, Maqableh and Alia (2021) also mention that psychological problems may cause students' dissatisfaction with distance education. In addition, the research by Xiong, Jiang, and Mok (2020) found that about half of the respondents found that online courses reduced their learning efficiency and increased their learning pressure. As Swan (2019) mentioned, the recent popularity of distance education may cause the distance learners' marginalization. In other words, distance education may pose a challenge to students' psychological well-being and social integration to some extent.

In terms of psychological problems, such as lack of class motivation, according to self-determination theory, there are three basic psychological needs including learners' ability, autonomy, and relatedness that can influence these learners' learning (Ryan & Deci, 2017). In terms of autonomy, although online learners may have more autonomy and freedom to schedule their own time, most learners may not be able to effectively manage their online learning (Polona Gradišek, & Alenka Polak, 2021).

Furthermore, learners' ability needs are also likely to be influenced in distance education because there are various challenges that online learners are likely to face in the distance education. This means that students may doubt their relevant learning abilities when they encounter many challenges in the distance learning. Therefore, lack of class motivation, one of learners' psychological problems, is also a factor which can affect online college students' satisfaction with distance learning.

7.8 Management Problems

According to Maqableh and Alia (2021), management problems in distance education, such as the management issues of online learning or online course, are likely to cause students' dissatisfaction with distance learning. In

addition, Nambiar (2020) claims that disorganized learning can affect students' satisfaction level with online distance education.

Similarly, Prokes and Housel (2021) also point out that chaotic course environment is also a factor affecting students' satisfaction with distance learning. Furthermore, Shaytura, Ordov, Pigoreva, Kosterina, Zyukin, and Gerasimova (2020) also mention that distance e-learning with effective management is one of the important factors for innovative development of modern education, especially university education. As a result, in distance online education, online course management problems are likely to be one of important factors that can affect students' satisfaction with online distance learning.

7.9 Financial Problems

Furthermore, according to Girik Allo (2020), students' financial difficulties can also affect students' experience sense of distance learning, and most online students are likely to request their teachers to make use of the free facilities or applications in the online education system. Similarly, Al-Salman and Haider (2021) also mention that learners' personal economic pressure reduces students' willingness and enthusiasm for online distance learning in the future. In addition, Adnan and Anwar (2020) also emphasized that online education may not produce the best results in developing countries such as Pakistan. Because of financial or technical problems, the majority of students could not use the Internet.

Based on the above reviews and comments on the relevant empirical studies and literature, there are various factors that may affect students' satisfaction and sense of experience of distance learning, such as network problems, technical operation issues, learners' psychological and economic problems, the quality of instructors' guidance, etc. In other words, all factors mentioned above may affect students' satisfaction with online classes to some extent.

8. Implications for Teaching and Learning

Based on the review and comment on the existing literature, there are implications for teachers' future teaching. First of all, the teachers should pay more attention to cultivating and developing their computer literacy and computer skills in their future online teaching, such as operating skills of related teaching software and platforms, to bring better and more efficient online learning experience to students (Uzule, 2020; Elfirdoussi et al., 2020).

As mentioned by Gupta, Aggarwal, Sable, Chahar, Sharma, Kumari, and Maji (2022), during the pandemic period, distance education is likely to be a feasible method for learners to obtain and improve their learning knowledge. However, in online education, teachers are likely to face some challenges, such as unfamiliar with online platforms or tools, large class size, too much e-mail, and lack of student self-discipline. Similarly, Krumsvik (2008) also suggests that teachers engaging in online education need to cultivate their digital literacy skills and teachers' understanding of the advantages of online teaching platforms. Additionally, Hassan, Mirza, and Hussain (2020) also point out that online education is still full of challenges for teachers in many developing countries even though the online model has been in place and widely used in developed countries. For instance, these teachers may not be familiar with how to deal with and operate online teaching platforms and online infrastructure in challenging situations. Therefore, in the future online distance education, the teachers need to pay more attention to improving and developing their computer operation and digital skills.

In the future online teaching, teachers should also pay more attention to their professional development (Elfirdoussi, Lachgar, Kabaili, Rochdi, Goujdami, & El Firdoussi, 2020). As Rapanta, Botturi, Goodyear, Guàrdia, and Koole (2020) pointed out, online teachers should carry out feasible professional development as a prerequisite for online course teaching to improve teachers' quality and work. Moreover, Rapanta, Botturi, Goodyear, Guàrdia, and Koole (2020) also mentioned that training for teachers' professional development can promote teachers to teach more effectively and improve their teaching level.

9. Limitations of the Research

In terms of this special project report, the acquisition of relevant pieces of literature is one of the limitations of the study. This is because the topic of COVID-19 is relatively new, which means that there may not be a large number of relevant references for reading so far. Additionally, there is also a relatively strict standard for the selection of works of literature in this research, including whether the literature is relevant to the topic, whether it can be used as a reference to answer research questions and the requirements of the year of publication of the literature. Consequently, searching for relevant literature is the main limitation of the current studies.

10. Conclusions

In conclusion, the sudden outbreak and continuous spread of the COVID-19 have brought great challenges to the education systems of various countries. In this context, most countries have launched the online distance education to minimize the impact of the spread of the COVID-19 on Education (Hebebe, Bertiz, & Alan, 2020; Tadesse, & Muluye, 2020; Di Pietro et al., 2020). Therefore, the popularity of distance education is inevitable.

So far, many scholars and relevant academic research papers have paid attention to and discussed the important role of distance education during the COVID-19 and put forward relevant suggestions for better implementation and utilization of distance education in the future. Moreover, many scholars also believe that because of the popularity of COVID-19, online distance education will be around for a long time. Therefore, ignoring these cases is likely to lower educational quality and learners' knowledge level (Yekefallah, Namdar, Panahi, & Dehghankar, 2021).

Based on the past and current research and literature, this special project report has found out that in the COVID-19 pandemic period, distance education is likely to be an important and feasible way to organize and implement teaching and learning. Consequently, it is significant to comprehend and pay attention to the students' satisfaction level and sense of experience with distance education. This is because the students' satisfaction level with online education may influence their academic performance and learning outcomes.

As a result, online distance education administrators and educators should strive to improve the quality of distance education and focus more on the factors affecting the quality of distance education in the future. Online teachers need to cultivate their relevant computer skills to operate the online teaching platform and relevant online teaching software proficiently, and they should also deeply comprehend the benefits and drawbacks of online distance teaching and learning, so that distance education can serve the university teachers and students better in the future.

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