



Perceptions of Chinese Students on Online Learning versus Face-to-Face Learning in the Bachelor of Science in Rehabilitation Science Program

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Abstract: Purpose: This research project aimed to investigate the perceptions of online learning versus face-to-face learning of Bachelor of Science in Rehabilitation Science (BSRS) Program students in Cohorts 2017, 2018 and 2019 in China. Methods: This quantitative study utilized a cross-sectional descriptive survey design involving 177 students from the BSRS Program. A link to the Qualtrics survey, which included a consent page, was sent to participants via social media platforms. Pilot testing of interviews was conducted to get an overlook of students' perceptions regarding both learning modalities. Survey questions were constructed according to the results of that pilot study. Results: Students preferred face-to-face to online learning (47% vs. 14%). Half of the respondents (45%) were equally motivated by face-to-face and online learning. Face-to-face learning was the most effective learning method (45%). Conclusion: Students gained more knowledge from face-to-face learning than online learning but concentrated well in both online and face-to-face classes. Face-to-face learning was the most popular teaching method and will continue to be in the near future, especially in Health Science Professions Education.

Keywords: COVID-19, international education, face-to-face learning, online learning, rehabilitation science

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Article history: Accepted August 31, 2023 Available online September 2, 2023

To cite this paper: Sai Meng, Tiantian Feng, Jingwen Li, Yuhao Zhou (2023). Perceptions of Chinese Students on Online Learning versus Face-to-Face Learning in the Bachelor of Science in Rehabilitation Science Program. *Journal of Educational Research Progress*, Vol3, Issue1, Pages 39-52.

Doi: <https://doi.org/10.55375/joerp.2023.3.5>

1 INTRODUCTION

With the rapid development of economic globalization, cultural diversity and political multi-polarization, an increasing trend of students going abroad to pursue their academic degrees is emerging. They choose to study abroad not only to gain knowledge but also to know and understand other countries' cultures, finance and communication methods (Pan et al., 2013). It is reported that 427,313 international students were choosing to further their education overseas from 2015 to 2016, an increase by 7.1% compared with the last academic year (Institute of International Education [IIE], 2016). In 2016, China exported 328,547 students, accounting for 31.5% of the world's total. In the previous year, 2015, there have been 304,040 Chinese students who have traveled to the United States for education, taking up one-third of all international students in America (IIE, 2015).

However, students' learning methods and models have changed due to the breakout and spread of COVID-19 worldwide in early December 2019. Unlike the traditional face-to-face learning we are familiar with, online learning has become a common teaching and learning style. The discussions and comparisons of these two methods have never stopped in recent years. For those Chinese international students enrolled in a university overseas, especially with an instructor speaking a different language, online and face-to-face learning will play entirely different roles. Chinese students always used the face-to-face learning method before the pandemic, but now they have to accept online learning methods, which would save their costs to some extent (Arias et al., 2018).

Concordia University Wisconsin (CUW) is an institution of higher learning in the United States. The School of Health Professions at CUW has established the Bachelor of Science in Rehabilitation Science (BSRS) program. This program is a U.S.-Sino cooperative education program for the Rehabilitation profession run in collaboration with Shanghai Normal University Tianhua College in China. Students can obtain degree certificates from both CUW and Tianhua College after 4-year study, during which students need to learn some courses at CUW in their junior year and complete 1-year internship in hospitals in their senior. Courses required for students include Physical Therapy Treatment, General Psychology, Basic Neuroscience Health Profession, Biomechanics, Exercise Physiology, Life Span Development, Foundational Concepts in Occupational Therapy, Evidence-based Practice Research Studies Health Profession, Drawing Fundamentals, Worldviews, Systematics, Culture and Rehabilitation, etc. Concordia University Wisconsin BSRS courses can enable students to learn professional knowledge and offer their bachelor's dual degree.

This study investigates and compares Chinese students' perceptions of online learning versus face-to-face learning in the BSRS Program. The targeted subjects involved are Cohort 2017 (83 students), Cohort 2018 (86 students) and Cohort 2019 (85 students). All participants experienced online and face-to-face learning when the study was conducted in 2022, under the influence of the pandemic. The study hopes to know students' statuses and understand their perceptions of both learning modes. It is expected that instructors and undergraduate rehabilitation science students will be able to improve the effectiveness of their learning/teaching methods by better understanding students' attitudes toward online versus face-to-face learning, especially during the pandemic.

Focused Research Questions

The following focused research questions guided this study:

1. What is students' preference between online and face-to-face learning in the BSRS Program during COVID-19?

2. What are students' perceptions of the effectiveness of online and face-to-face learning in the BSRS Program?

3. How do students perceive the advantages and disadvantages of online and face-to-face learning in the BSRS Program?

2 BACKGROUND

2.1 Face-to-Face Learning, Online Learning, and Blended Learning

Students use many learning methods, including face-to-face, online, and blended learning. Face-to-face learning is an instructional method where course contents and learning materials are taught in person to a group of learners (Kemp & Grieve, 2014). The mode of face-to-face learning allows for active interactions between learners and instructors. Nowadays, educators can also use electronic facilities and teach with software as the medium. Online learning is a method of education in which students learn in a completely virtual environment (Chen & Huang, 2021), while blended learning is an approach that combines online educational materials and virtual interactions with traditional face-to-face classroom settings. It requires the physical presence of both the teacher and students, with some elements of student control breaking over the limit of time, place, or channel (Marhabo, 2020).

2.2 Comparison between Face-to-Face Learning and Online Learning

There are many advantages and disadvantages attached to both face-to-face and online learning. For face-to-face learning, the advantage is that teachers can monitor changes in students' emotions and attention at any time, which allows them to stimulate students' interest in time and interact more directly and promptly. In addition, learners have more opportunities to give the teacher hints about their learning, for example, through eye contact and body language. Successful eye contact can effectively increase classroom enthusiasm and learner interest (Haataja et al., 2021). In comparison, an integrative review showed some major barriers to the implementation and development of online learning in medical education, while educators should provide solutions to improve the effectiveness of online learning (Doherty et al., 2018). The study of Lochner et al. (2016) indicated that through a traditional anatomy lecture combined with preparatory online learning activities, health professions students engaged more actively and deeply with course materials in class.

For online learning, the advantage is that online courses can be recorded and watched repeatedly. Online learning is not limited to a particular place, so learners do not have to endure the fatigue of renting an apartment and transportation, traffic jams, and weather issues. In addition, students can overcome their psychological anxiety or shyness in communicating with their teachers or classmates. Sometimes, they may be afraid to ask classmates or teachers face-to-face in class, but they could ask questions through a computer screen (Song et al., 2004). Online learning could also reduce costs for learners by requiring only a mobile device (e.g., computer, laptop, mobile phone, etc.) with internet service at home, without the necessity of driving a car or taking a taxi to campus. Transnational students will no longer need to pay their board and lodging expenses from their home country to other countries. The disadvantage is that online learning requires self-discipline, as students must push themselves to complete their assignments in different courses on time. In terms of hardware, there are uncontrollable factors of computer equipment and network speed (Doherty et al., 2018).

Mather and Sarkans (2018) indicated that mature students preferred online learning to face-to-face learning because it provided them the flexibility and convenience of continuing their

education without traveling long distances. Interacting with instructors and peers in the face-to-face mode enhanced student learning by providing immediate instructor feedback, while the online modality took a long time to respond (Mather & Sarkans, 2018).

2.3 Learning Theories and Pedagogy

There are five primary educational learning theories or pedagogical approaches: constructivist, collaborative, integrative, reflective, and inquiry-based learning (Pritchard & Woollard, 2010). *Constructivism* encourages learners to build their knowledge systems based on what they have experienced and where they live. They transform information from current and past experiences into personal perspectives (Pritchard & Woollard, 2010). In constructivist learning theory, students learn things actively rather than getting information passively. *Collaborative learning* is a pedagogical approach to helping students achieve knowledge and information as much as possible by involving groups of learners working together to solve a tough problem, accomplish a challenging task, or develop a new product (Marjan & Mozghan, 2012). According to Gerlach (1994), 'learning is a naturally social act in which participants talk among themselves. It is through the talk that learning occurs' (p. 12). *An integrative approach* encourages learners to make connections of their learning across courses within a learning environment instead of collecting isolated facts. The eventual goal is to make students skilled at coping with their professional and personal lives (Peyser et al., 2006). Peyser et al. (2006) also concluded that the pedagogy of integration has four objectives: a) making sense of the learning process, b) differentiating matters by relevance, c) applying the learning to practical situations, and d) associating the learned elements. *Reflective learning* is a form of education in which students reflect on their learning experiences. Reflective learning theorists view it as a deliberate and complex process that recognizes the role of social context and experience (Brockbank & McGill, 2006). The declaration and innovation of meaning in terms of oneself are the goals of this process, which then contribute to a different conceptual attitude (Boyd & Fales, 1983). *Inquiry-based learning* is an important pedagogical approach in science education that requires answering questions or getting the correct answer and investigating, exploring, searching, researching, pursuing, and studying (Pedaste et al., 2015).

As a new learning modality, online learning can facilitate these five approaches to effective learning in many ways. For example, online learning can facilitate constructivist learning by providing opportunities for students to interact with each other and with their instructors through online discussion forums and other collaborative tools (Zajda, 2022). Collaborative learning can be enhanced through online group work and peer review activities, which allow for asynchronous communication, leading to more detailed elaboration of phrasing (Barkley et al., 2014). The vast amount of information and materials available online, which learners can easily access anytime, anywhere, allows them to explore interdisciplinary topics. These research and discussion opportunities also exercise their broad academic skills, creating an inclusive learning environment. Reflective learning can be achieved by providing opportunities for students to reflect on their learning experiences through online journals or blogs. Some virtual reality platforms and facilities allow students to explore real-world problems through online research and experimentation, an example of inquiry-based learning.

Student satisfaction with the teacher's pedagogy can reflect the effectiveness and quality of teaching/learning. As a result, instructors must understand different learning theories and pedagogical approaches to choose appropriate teaching strategies to improve learning and teaching effectiveness.

2.4 Learning/Teaching during COVID-19

The coronavirus disease (COVID-19), which appeared at the end of 2019 and spread rapidly around the world in 2020, has dramatically changed people's lives in all sorts of ways, including education. In response to COVID-19, many countries have taken various measures to protect the safety of their citizens, including students. As the epidemic continued to be more serious, China was the first country to announce that it would implement online learning in February 2020 (Jin et al., 2021). The educational environment had also begun to undergo a large-scale transformation. Modalities of instruction changed from traditional face-to-face to online (Gonzalez-Ramirez et al., 2021). For international students, not only the fear of the epidemic and the pressure of life, but also the unfamiliar learning environment of online learning followed. Before the outbreak of COVID-19 in China, online learning was not widely used in schools and universities, so it would be a great challenge for teachers and students to adapt and accept this new learning method. Online learning has been used for decades to provide flexible and personalized learning opportunities for students who cannot attend physical classrooms. Before the pandemic, online learning was primarily an option for adult learners seeking higher education or professional development, or for students with special needs that prevented them from attending regular schools. During the pandemic, however, as schools and universities were forced to close or restrict their physical operations, online learning became necessary for almost all students and educators. Another difference between post-COVID and pre-COVID online learning is the quality of delivery and design. Before the pandemic, online learning was often carefully planned and delivered by instructors with training and experience in digital technology and pedagogy. Online courses are designed to be engaging, interactive, and student-centered, using various tools and strategies such as multimedia, gamification, adaptive learning, and peer feedback. However, during the pandemic, many faculty members had to quickly adapt to teaching online without adequate preparation or support. Online courses were often delivered in an emergency mode, using fundamental tools such as video lectures, slides, and quizzes. Massive mandatory online learning impacted students' learning outcomes and experiences differently than previous voluntary online learning. Before the pandemic, online learning was often seen as an effective and convenient way to learn for motivated, self-directed and independent students. Online learning also offered students more choice and flexibility regarding pace, location, and learning path. However, during the pandemic, online learning presented many challenges and barriers for students who were not used to or prepared for this mode of learning. Online learning also exacerbated existing inequalities and gaps among students who had different levels of access to devices, internet connectivity, and learning support. In addition, online learning affected students' social and emotional well-being as they faced isolation, stress and anxiety due to the lack of face-to-face interaction and feedback from their teachers and peers.

3 LITERATURE REVIEW

Studies have shown that most students prefer face-to-face to online learning (Lochner et al., 2016; Serhan, 2020; Zhang et al., 2020). Serhan (2020) found that most students would feel more comfortable in face-to-face learning. Zhang et al. (2020) also concluded that most students were fond of face-to-face learning compared with online learning in Medical Bachelor, Bachelor of Surgery (MBBS) Program at Zhejiang University. Students were more active in their performance in face-to-face classes than they were in online learning (Lochner et al., 2016). However, some students are quite comfortable with online learning because they can be innovative with computer technology (Bali & Liu, 2018).

Lochner et al. (2016) indicated that students were more effective and active in the anatomy lecture series by using preparatory e-learning activities in medical education. Zhang et al. (2020)

found that online distance learning was a good way for MBBS Program students when face-to-face courses could no longer be conducted, because they were satisfied with online Traditional Chinese Medicine courses and benefited from the online course. According to McCutcheon et al. (2016), there have been limitations to the effectiveness of online learning for teaching clinical skills in health care professions. The researchers agreed that in the future of education, online learning may not replace onsite and face-to-face learning, but it could complement the existing traditional classroom-based learning model (Lochner et al., 2016; Zhang et al., 2020).

The main advantages of online learning were: a) the convenience and flexibility of pursuing education without having to travel long (Dost et al., 2020; Mather & Sarkans, 2018; Serhan, 2020) and b) easy submission of written assignments (Kemp & Grieve, 2014). The major disadvantages of online learning revealed by Serhan (2020) were a) distractions, b) possible low quality of interaction and feedback from teachers; c) poor education quality. Mather and Sarkans (2018) also reported a lack of immediate response from peers and faculty in online learning, which was critical to improving student learning in online courses. In addition, a higher percentage of faculty favored face-to-face learning because it reduces the possibility of cheating or fraud in examinations (Hanafy et al., 2021). For face-to-face learning, interaction with faculty and peers, collaboration with group members, and engagement with instructors are the main reasons most students choose (Bali & Liu, 2018; Kemp & Grieve, 2014; Mather & Sarkans, 2018; Serhan, 2020). Furthermore, Hanafy et al. (2021) showed that face-to-face learning was more acceptable by students than online learning, with fewer technology issues or unstable networks during the process of teaching and examination among students.

To date, there is no research exploring transnational Chinese students' opinions on online versus face-to-face learning, whose major was related to medical care or rehabilitation science. Therefore, this research targeting BSRS Program students in China filled the gap in samples of transnational rehabilitation science students.

4 METHODS

4.1 Design

The research project utilized a quantitative design with a cross-sectional descriptive survey to investigate students' perceptions of online learning versus face-to-face learning to understand how participants think about the effectiveness, merits and demerits of online and face-to-face teaching. Prior to this research, a pilot study of interviews was conducted to get an overview of students' perceptions of both methods, and survey questions were constructed according to the results of this pilot study. The researchers believe that the survey method not only provides efficient access to the answers to the research questions through the pilot interviews, but also involves comparatively more participants, thus increasing the credibility of the research.

4.2 Participants

This study recruited 177 undergraduate students from approximately 250 students registered in the BSRS Program at Tianhua College in 2017, 2018, and 2019. The ages of most participants are from 18 to 24 years old. The inclusion criteria include: a) Students registered at Tianhua College pursuing their dual degrees in the BSRS program; b) Students who had participated in the BSRS Dual Degree Program at Tianhua College in the years 2017, 2018, and 2019 (i.e., Cohorts 2017, 2018 and 2019), during which they experienced both learning methods because of Chinese pandemic policies; c) Students who had experienced both online and face-to-face learning modes. The exclusion criteria followed: 1) Students who had no access to internet services or devices, which means they could not complete the electronic survey.

4.3 Procedures

The electronic survey included Likert-style, multiple-choice, and yes/no questions. The online questionnaire included a consent page that all participants must complete before answering questions. Participants understood the purpose and content of this research and the potential benefits and risks of participation. In addition, participants were informed of how their personal information would be protected. Twenty-one questions were asked in the survey; the questions were divided into four sections: a) demographics, b) knowledge, c) attitudes, and d) practice patterns. We conducted a pilot study in which ten students were interviewed about their general perceptions of online and face-to-face learning and their actual situations in each. The pilot test of the online survey was also sent to these volunteers to get their feedback and responses to make our survey questions clearer and more concise. We sent the survey questions to these volunteers and received their knowledge of the result attached to the survey. The estimated time of completion was specific after pilot testing. The feedback has been used to make changes to improve the investigation. The revised questionnaire was resent to those volunteers who reviewed the first draft of the survey. This process continued until no more feedback was received from volunteers. Participants received the survey via a link generated by Qualtrics. The researchers conducted two rounds of data collection. In the first week, the survey link was shared with all cohorts using the following social media platforms: WeChat, Tencent, and DingTalk apps in China. These apps were multifunctional platforms where students could talk and communicate with each other online by creating different groups, similar to WhatsApp in the United States. The following week, a second round of mailings was sent out to get more feedback. Permission was obtained from an authority at Tianhua College prior to the entire process. The data collection lasted for three weeks, and there were 177 valid responses in total.

4.4 Data Analysis

Data collected through the Qualtrics software was imported into SPSS for data analysis and Excel for data visualization after all surveys were completed. Answers to survey questions from students, including interval, nominal, and ordinal data types, were compared and analyzed. We used descriptive statistics such as mean, standard deviation, range, mode, median, and frequency count (e.g., graphic displays or bar charts) to demonstrate and compare different data and variables between each group.

5 RESULTS

177 Shanghai Normal University Tianhua College BSRS Program students participated in this survey. There were 32, 83, and 62 students in Cohorts 2017, 2018, and 2019 respectively. Ninety-six percent of the students were between the ages of 18-23. About 64% of students had sometimes experienced online learning before COVID-19 (see Figure 1). The results also showed that 79% of participants had access to Blackboard for class preparation. The statistics of different teaching styles of CUW instructors showed that the general number of courses conducted online, face-to-face, and blended, respectively, that were being taken or had been taken in the junior was all between 0 and 5 classes.

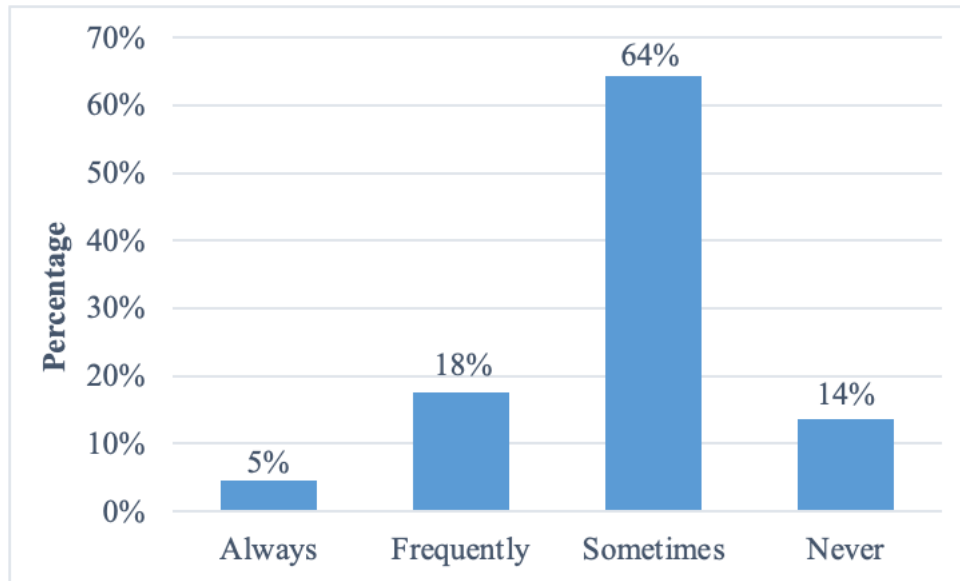


Figure 1. *How Often Did You Have Online Learning Before COVID-19?*

The survey data indicated that 47% of students preferred face-to-face learning while only 14% of participants chose online learning. Most of the students in the BSRS program believed that face-to-face and blended learning would be the primary learning styles in the future, both taking a proportion of 43%. When asked about which aspects of Blackboard students preferred, almost half indicated exams and discussion. More than half (66%) enjoyed practical labs in Blackboard, where students could talk and work together to achieve more knowledge and solve problems, consistent with the learning theory ‘*Collaborative Learning*’ (Marjan & Mozhgan, 2012) (see Figure 2).

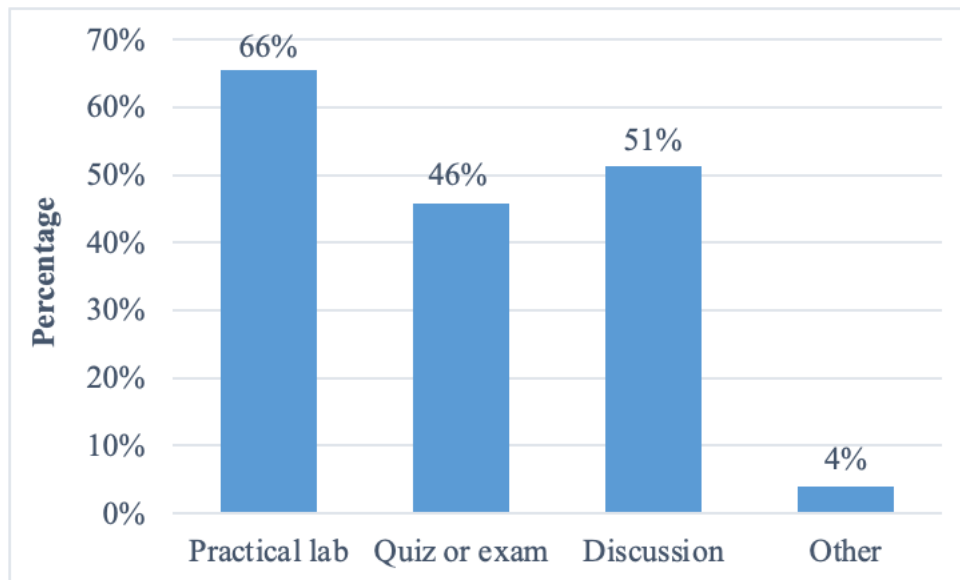


Figure 2. *Which Aspects of Blackboard Do You Prefer, for Online or Face-to-Face Courses?*

Nearly half of respondents (44%) said they were more motivated during face-to-face classes than online classes. Also, 45% of the respondents said they were equally motivated during face-to-face and online learning (see Figure 3). Students would like to see their online courses be a combination of both synchronous and asynchronous modalities. Forty-nine percent of students felt good about their attention span in online courses. However, face-to-face classes had a higher rate

of good attention than online courses at 59%, indicating that students preferred face-to-face to online courses.

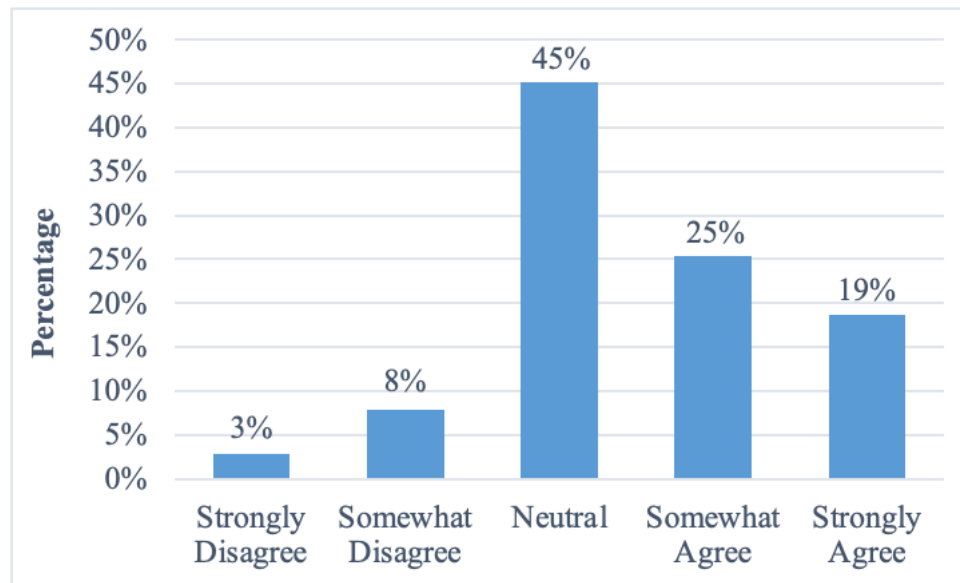


Figure 3. *Level of Agreement with 'I am more motivated to learn in face-to-face courses than online courses'*

When asked which learning format was most effective, 45% of students said face-to-face, and 39% said blended. Only 16% of participants considered online the most effective learning format (see Figure 4). The results showed that approximately 60% of participants had gained some benefit from online learning, while the same percentage of respondents had gained a great deal from face-to-face learning.

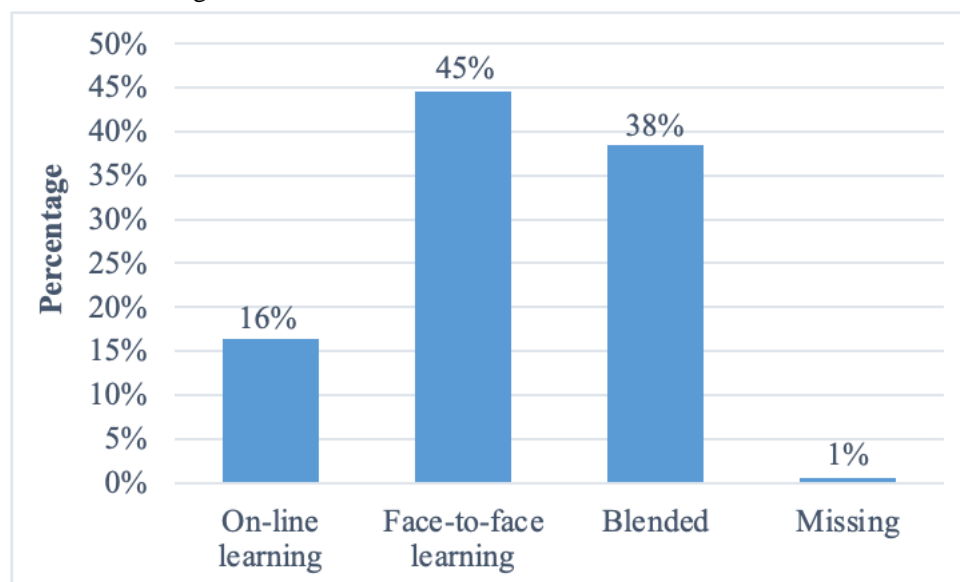


Figure 4. *Which Format of Teaching Online or Face-to-Face Do You Think Most Effective for You?*

The main advantages of face-to-face learning reflected by respondents were: a) Communication with teachers (85%) b) Student engagement (76%) and c) Quality of learning effectiveness (67%). Three main advantages of online learning were: a) View recorded lessons

multiple times to help students preview and review (79%) b) Not bound by time and space (76%) and c) More convenient in the learning environment (61%).

Three major disadvantages of online learning were: a) Unstable network (74%) b) Long-time watching on the computer screen resulting in visual fatigue (66%) and c) Lack of supervision and restraint in study (64%). The two main drawbacks of face-to-face lectures were: a) Shyness to ask or answer questions (67%) and b) Impossibility to make up for missed classes (61%).

6 DISCUSSION

6.1 Main Findings

The BSRS Program students preferred face-to-face learning to online learning. The results were consistent with Kemp and Grieve (2014), who indicated that students learned more effectively in the face-to-face format than online during COVID-19 because they gained much from face-to-face learning while only some from online learning. Students were less supportive of online learning than face-to-face learning, and they learned less from online courses. However, students were more likely to accept the combination of live online (synchronous) and videotaped (asynchronous) instruction when taking online courses. They needed supervision and restraint in their studies, and more communication with teachers was needed to improve their learning, although replayable instructional videos were provided to help them preview and review learning materials well. In other words, students were unwilling to spend extra time watching recorded videos after class because they would prepare for next class and had no tremendous amount of self-discipline. Participants reported the same barriers to online learning as Dost et al. (2020), such as unstable networks, limited quiet environment, and weary or bored after long-time watching on the computer screen, which were the main factors contributing to inefficient learning.

This research found that while online classes are becoming more accepted due to the COVID-19 pandemic, face-to-face learning will not be replaced and will likely remain the norm. Everyone's self-control varies, but the most important thing for the students was to get the emotional transfer to happen face-to-face. The face-to-face learning atmosphere can better urge and influence students to pay more attention to lecturers or their studying. However, the shyness to ask or answer questions is always an obstacle for Chinese students since it is a common characteristic of Chinese students (Roopchund & Wang, 2015). Therefore, teachers will play a vital role in arousing students' enthusiasm and eliminating their shyness in face-to-face classes.

Regarding how students previewed and reviewed their courses, it is concluded that most students would use online platforms to learn and make considerable progress in their future studies. The results were similar to Serhan's (2020) study, which found that students preferred online learning because of its flexibility and convenience without time and space constraints.

Students in the BSRS program prefer face-to-face learning to online learning. Face-to-face learning facilitates concentration and efficiency. However, this does not mean online learning was completely unacceptable to students, as the results show that students were equally motivated by face-to-face and online learning. This study also shows that students expect an enhanced network and more interaction with teachers or peers during online learning rather than simply watching lecture videos.

6.2 Implications

This research implies that rehabilitation science educators should consider the benefits and drawbacks of both face-to-face and online learning modes when designing their courses. Face-to-face learning can promote greater interaction and engagement with teachers and peers and high-quality learning outcomes. However, it can also pose challenges for shy students or miss class for various reasons. Online learning can provide greater flexibility and convenience for students,

allowing them to learn at their own pace, from their location, and to access instructional videos multiple times. However, it can also suffer from technical issues, visual fatigue, and lack of motivation and discipline. Therefore, college educators should balance the application of both modes and provide adequate support and guidance for students in different learning situations.

6.3 Limitations

There are shortcomings in this study. It was a small sample study with participants from only one university in rehabilitation. The lack of students from different universities and majors limited the researchers' ability to understand the students' perspectives fully. In addition, our survey needed further refinement, such as a more detailed categorization of questions according to learning stages (e.g., before, during, and after classes). More open-ended choices and questions could also be added for more individualized expression. Future studies should address these limitations.

6.4 Suggestions for Future Research

More samples from different universities in collaborative rehabilitation-related programs such as rehabilitation engineering, rehabilitation psychology, and rehabilitation kinematics programs should be included in future research. The effectiveness of students' learning during different learning formats can be evaluated by faculty members or observation from teachers in class (e.g., grades of quizzes or exams and responses to questions) rather than only by perspectives from students themselves. At the same time, this study can be further corrected and strengthened by refining the focus areas of question. Questions about efficiency, advantages and disadvantages, etc. that target different stages of learning (e.g., before, during, and after classes) should be separated. These questions can help researchers make detailed recommendations to educators. Mixed-methods approaches can also be considered, with interviews or focus groups gaining more individualized and subjective perceptions from participants. In addition, few participants from Cohort 2017 completed the survey because they had graduated and might be busy with their work. The similarity of subjects' responses should also be considered when recruiting participants for future research.

7 CONCLUSIONS

As the breakout of the COVID-19 pandemic forced the transfer from face-to-face to online learning in China, students and faculty had to accept online learning passively. Students in the BSRS program have all experienced online and face-to-face learning during the pandemic. The study investigated the Chinese students' preference for online versus face-to-face learning, their opinions on the effectiveness of online versus face-to-face learning, and the advantages and disadvantages of both face-to-face and online learning.

This study revealed that BSRS Program students have gained more knowledge from face-to-face courses than from online courses. Nearly half of the participants preferred face-to-face learning to online learning. For face-to-face students, communication with teachers, student engagement, and quality of learning effectiveness were the main reasons for their choice. Students choosing online learning highlighted that the convenience of the learning environment, flexibility of time and space, and access to replayable instructional videos were essential factors that informed their decision. The unstable network, visual fatigue, and lack of supervision were also challenges for online learners. The greatest challenge for face-to-face learners was their shyness to ask or answer questions in person.

Based on the data of quantitative survey design from BSRS Program participants, rehabilitation science educators should consider the benefits and drawbacks of face-to-face and

online learning modes when designing their courses. They ought to balance the application of both formats and provide adequate support and guidance for students in different learning situations.

ACKNOWLEDGMENT

We would like to thank all of the students in the BSRS program who took the time to complete the electronic surveys and our professor, Dr. Steven Cope, Chair of the Department of Rehabilitation Science, Concordia University Wisconsin, United States, for his helpful suggestions on this research project.

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