Online Learning Method in COVID-19 Pandemic: The Perspectives, Opportunities, and Challenges of Nursing Students in Aceh, Indonesia: An Exploratory Descriptive Study

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ABSTRACT

Introduction: The Covid-19 virus pandemic caused a significant impact on communities' life and their activities throughout the world. The Covid-19 pandemic also had a significant effect on the education system in Indonesia and requires all teaching and learning activities for students to be carried out by virtual or online learning method.

Aim: This study was to explore online learning methods' perceptions, opportunities, and challenges in the COVID-19 pandemic among nursing students.

Method: A descriptive explorative study was implemented with a cross-sectional design. The study was conducted on 276 nursing students in Aceh, Indonesia. The data were collected using a 5-point Likert scale and the standardized Online Learning Perception Scale (OLPS) and Opportunities and Challenges Online Learning (OCOL) questionnaires. The reliability test of the questionnaires were indicated by Cronbach alphas of 0.89 and 0.90, respectively.

Result: The study results showed that 50.4% of the nursing students have positive perceptions about the online learning method, 51.4% of the students believe that online learning offers high opportunities, and 50.4% of students think that the online learning method is highly challenging. It showed more than 50% of the students have significant on the positive perceptions, high opportunities, and challenges in learning method.

Conclusion: The positive perception, high opportunities, and challenges towards online learning methods among nursing students is the result of a study that proved the benefits of online learning methods which can be used as an alternative for students to achieve learning goals, especially during the COVID-19 pandemic. Positive perceptions from students towards online learning methods can be encouragement and strength for one of the online-based learning methods and could also be proven by the high opportunities and challenges students in this online learning method.

Keywords: Perception, opportunities, challenges, students, online learning

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INTRODUCTION

The COVID-19 outbreak in December 2019 has significantly impacted communities' life and activities. The SARS-CoV 2 causes COVID-19 has become an epidemic and causes the foremost crucial number of deaths worldwide. The COVID-19 generated more than 80% of infected people developed mild to moderate illness with symptoms such as fever, dry cough, fatigue, and severe symptoms such as chest pain, loss of speech, and shortness of breath, and recover without hospitalization [1]. It has also impacted all aspects of human life globally, including economic, education, health, medical needs and services, and social crises [2].

The impact of the COVID-19 pandemic on education is also prominent. The government policy to carry out physical and social distancing as a health protocol required by the World Health Organization has mandated that all teaching and learning activities carried out at home (school from home) [2]. The health protocol intended to minimize physical contact to break out the virus's chain. Learning media through distance learning with online media (in-network) is a method used to achieve learning competencies during this pandemic [3].

Online learning that has been widely applied for years is back in the spotlight during the COVID-19 pandemic. Before the pandemic, e-learning had not received much attention due to the perception that face-to-face learning was more effective than online methods. The COVID-19 pandemic has made swift changes and forced the learning system to be online to reduce the gaps due to the lockdown situations [4-7]. They aimed to achieve student competencies through critical thinking, creative thinking, collaboration, and communication. Critical thinking directs students to solve problems in the learning process. Creativity thinking is having high creativity and reasoning and seeing a situation from various sides or perspectives, changing textual learning to be contextual using multiple sources in society. Then, collaboration is an activity to work together in their future lives, and finally, communication means conveying ideas and thoughts quickly, clearly, and effectively [8]. The online learning method needs determination and ability from the user, including

the students must be perspicuity, dependability, stimulation, attractiveness, and usability and innovation. The study also proved that stimulation and attractiveness is an online learning method that significantly affects students' satisfaction during the COVID-19 pandemic [9].

Furthermore, an online class-based curriculum is more flexible and convenient for students. The use of online learning platforms in teaching and learning was more effective and efficient; however, some challenges may occur in online learning, especially in the practice of lab skills [5,7]. Online learning also offers some opportunities for the students. The students could access appropriate and accessible data and information, master the use of information and technology tools, access education anywhere, seek and learn new knowledge virtually through textbooks and print media that affect the role of lecturers in delivering learning materials [4].

Based on the primary sources conducted with several students of the Faculty of Nursing, Universitas Syiah Kuala, Banda Aceh, Indonesia, as an area severely damaged during the 2004 tsunami with the condition of being very prone to natural disasters unstable geographical conditions. The students explained that the online learning method is beneficial in time management, transportation costs, and autonomy in the learning process. However, some students dominantly showed that they were confused in the laboratory skills conducted online and preferred face-to-face laboratory learning, experienced boredom, and sometimes lacked concentration during the online learning process. Furthermore, other students mentioned that the opportunities in the online learning methods might develop creative ideas, such as making learning media; video, role play, demonstration, leaflet, booklet, and several other assignments. It also motivated them to self-learn by accessing digital learning resources, enhancing their discussion skills, and using online meeting platforms, such as Zoom meeting applications and Google classroom. The challenges during online learning include the lack of internet connection, application systems, electrical power, computers or android devices, and environmental factors. This online learning challenge is supported by Gumede & Badriparsad [11] mentioned that there are concerns about the transition

from face-to-face lectures to online learning systems and the need to adapt adequately to online learning methods such as devices and data availability. The objective of the study was to explore three parts about online learning methods among nursing students: Perceptions, opportunities, and challenges in the COVID-19 pandemic.

METHOD

Study Design

This study design was a descriptive explorative to explore the perceptions, opportunities, and challenges of the online learning method in the COVID-19 pandemic in nursing students.

Population and Sample

This study was conducted from September to October 2020. The populations were all the nursing students at the Faculty of Nursing, Universitas Syiah Kuala, Banda Aceh, Indonesia who had been studying from years of 2016-2019 (year of academic entry) at both the academic and professional education stages. The sampling method was consecutive sampling totalling 276 students.

Instruments

The perception questionnaire used was the standardized Online Learning Perception Scale (OLPS) from Wei & Chou (2020), and Opportunities and Challenges Online Learning (OCOL) questionnaires. The reliability test of the questionnaires using Cronbach alpha of 0.90 and 0.89, respectively. The researchers developed Opportunities and Challenges Online Learning (OCOL) questionnaires based on a literature review. It was validated for face validity and content validity using content validity index (relevance, clarity, and brevity) by three experts from the Faculty of Nursing at Universitas Syiah Kuala, Banda Aceh, and fulfilled the validity test requirements. For the face validity aimed to investigate the cultural relevance, understanding of meaning, logical flow,

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grammar, and composition of the newly developed items [1]. The OLPS and OCOL questionnaires consisted of 5-points Likert scale: strongly agree (5), agree (4), doubtful (3), disagree (2), strongly disagree (1). The OPLS consisted of 23 positive statements and the OCOL questionnaires (opportunities and challenges online learning method) consisted of 24 positive statements. The binary categories have been decided by using mean score for OPLS into 2 categories: positive and negative peceptions. Morever, the OCOL questionnaire also divided into 2 categories: high and low opportunities and challenges online learning method.

Data Collection

The preparatory stage of data collection includes completing the administration process and approval from the Dean of the Faculty of Nursing at Universitas Syiah Kuala, Banda Aceh, Indonesia. The researcher collected the data by recruiting the eligible respondents: all students of the class 2016-2019 (four batches) in the academic and professional stages using online learning in the COVID-19 pandemic. The data is kept confidential by coding the respondents. The respondents signed the written informed consent form using an online platform. Next, the respondents who agreed to involve in this study were sent a link to fill out the online questionnaires. The questionnaire was checked for completeness. The researchers would like to thank the respondents who have participated in the study.

Data Analysis

Descriptive analysis in this study uses the mean, standard deviation, frequency, and percentage of perceptions, opportunities, and challenges of online learning methods for nursing students. Data were analyzed using the statistical package Statistical Program for Social version 23.0 (IBBM Corp., Armonk, New York, USA).

Ethical consideration

This study is consistent with the Declaration of Helsinki. The study has been approved by the local Ethics Committee in Indonesia (Research Code: 113003080620; Decision Date: July 21, 2020).

RESULTS

The population in this study was both the nursing students of academic and nurses' profession stages of Faculty of Nursing, totally 667 students. By using consecutive sampling, 276 students were conducted in this study. The results of this study consisted of demographic data of the respondents, perceptions about online learning, and opportunities, and challenges online learning method in COVID-19 pandemic are explained as follow (Table 1, 2, 3, 4)

Demographic Data	Frequency	Percentage
Age (Mean±SD)	(20.44±1.56)	
Gender		
Male	23	8.3
Women	253	91.7
Entry year of study		
2015	29	10.5
2016	25	9.1
2017	71	25.7
2018	75	27.2
2019	76	27.5
Online learning experienced		
Yes	260	94.2
No	16	5.8
Barriers to online learning		
Internet access	232	25.1
Learning Media	129	14.0
Method used	123	13.3
Learning materials	81	8.8
Learning interactions	194	21.0
Learning facilities	165	17.9

Table 1. *Characteristics of the respondents (n = 276)*

Table 1 showed the average age of the respondents was 20.44, with a standard deviation of 1.56.

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The majority of respondents were female (91.7%).

Then, most respondents had only been studied for a year or started in 2019 (27.5%), and 94.2% of the respondents had online learning experiences. The biggest obstacle in online learning methods was internet access (25.1%).

Perceptions, opportunities, and challenges online learning method in COVID-19 Pandemic

Student' perception, opportunities, and challenges about online learning method among nursing students in Faculty of Nursing are shown in Table 2.

Variable	Frequency	Percentage
Perceptions		
Positive	139	50.4
Negative	137	49.6
Opportunities		
High	142	51.4
Low	134	48.6
Challenges		
High	139	50.4
Low	137	49.6

Table 2. *Perceptions, opportunities, and challenges of nursing students about online learning method in COVID-19 pandemic (n = 276)*

Table 2 showed 50.4% of respondents have positive perceptions of online learning in COVID-19, 51.4% believe that online learning methods offer high opportunities, and 50.4% think that online learning is highly challenging.

The details of each item for OPLS and OCOL questionnaires were presented in Tables 3, 4, and 5 as follow:

Statements	M (SD)
Online learning provides various multimedia learning resources.	3.28 (0.929)
Online learning provides various online resources	3.34 (0.942)
Online learning enables me to retrieve and obtain more learning resources	2.79 (1.038)
Online learning enables me to share and exchange resources.	3.08 (0.939)
Online learning enables me to interact directly with other learners.	2.50 (1.146)
Online learning can encourage interaction between instructors and students	2.64 (1.030)
Online learning can shorten the distance between instructors and students.	3.23 (1.077)
Online learning enables me to meet more classmates or peers with the same interests or habits.	2.27 (1.070)
Online learning provides sufficient discussion opportunities.	2.45 (1.009)
Online learning provides convenient tools to communicate with other learners.	2.78 (0.972)
Online learning enables me to decide on the best time to learn.	3.01 (1.065)
Online learning enables me to decide on the best location to learn.	3.26 (1.067)
Online learning enables me to repeatedly review learning materials.	3.39 (0.942)
Online learning overcomes time and places constraints.	3.23 (1.168)
Online learning can broaden my common knowledge base.	2.99 (0.998)
Online learning enables me to learn more about the knowledge that I desire to learn.	2.83 (0.974)
Online learning can expand my academic knowledge capacity.	2.82 (0.936)
Online learning is an effective learning style.	2.06 (1.048)
Online learning enables an abstract idea or concept to be presented in a concrete manner	2.51 (0.888)
Online learning environments lead to less pressure to catch up with a course schedule.	3.08 (1.024)
Online learning environments are less stressful.	2.57 (1.217)
Online learning environments place less pressure on exams and assessments.	3.01 (1.126)
Online learning environments can effectively reduce learning burden.	2.63 (1.073)

Table 3. *Online Learning Perception Scale (OLPS) of nursing students about online learning method in COVID-19 pandemic (n = 276).*

Statements	M(SD
Improve experience in the learning process using online learning applications or platforms.	3.64 (0.910)
Online learning creates creativity in making combinations of learning methods.	3.47 (0.904)
Provide opportunities to master information and technology using online learning applications or platforms.	3.81 (0.749)
Online learning increases readiness to face global competencies	3.70 (0.899)
The online lecture process can be accessed anywhere without having to gather in class.	4.03 (0.888)
Provide opportunities for critical and innovative thinking in using online learning media.	3.57 (0.874)
Online learning information can be recorded and stored.	4.11 (0.743)
Provide opportunities to access learning resources such as e-books, e-journals, e-libraries, and e-education.	3.99 (0.788)
Online learning can be used as data-based storage and teleconference media.	3.81 (0.774)
Teach self-management skills in time management in the process of completing tasks.	3.64 (0.857)
Providing a unique learning experience for everyone.	3.83 (0.900)
Provide individual and collaborative learning opportunities in completing assignments.	3.66 (0.866)

Table 4. *The opportunities of nursing students about online learning method in COVID-19 pandemic (n = 276).*

Statement	M(SD)
The availability of internet access during online lectures is very limited.	4.29 (0.962)
It costs a lot of money to buy an internet data because of the long online lecture process.	4.69 (0.705)
Limited availability of application systems for online lectures, such as: zoom meeting applications, google meetings, and Webex.	3.94 (1.074)
The limitations of the computer or Android mobile phone that you have so that it interferes with the online lecture process.	3.70 (1.215)
Environments such as changing weather affect online learning.	4.60 (0.768)
The availability of electricity services is very supportive of online learning.	1.44 (0.813)
Availability of computer equipment can affect online learning.	1.61 (0.804)
Internet interruptions cause unclear audio or video during online lectures.	4.77 (0.607)
Limited time in discussing the topics discussed during the online lecture process.	4.29 (0.951)

Limited time in asking questions and discussions during the online lecture process.	4.12 (1.022)
Not focusing on understanding the topics discussed during the online lecture process.	4.29 (0.940)
Feeling bored, bored, and lacking motivation during the online lecture process.	4.37 (0.875)

Table 5. *The challenges of nursing students about online learning method in COVID-19 pandemic (n = 276)*

DISCUSSION

This study explores the opportunities and challenges of online learning methods during the COVID-19 pandemic in nursing students. The results showed that more than half of the respondents have positive perceptions of online learning (50.4%). This finding is supported by several statement items indicating a positive impact of online education on students, namely the availability of various learning resources, available time and place, reducing pressure during exams and assessment, and increasing student creativity in creating learning media. Meanwhile, nearly half of the students show negative perceptions (49.6%) of online learning. The nursing students mentioned that online learning requires high internet data or fees, and internet access is limited for those living far from urban areas due to environmental factors and electrical powers. Besides, the interaction with lecturers and other students is minimal. They found it challenging to understand the learning delivered by lecturers and other students during activities in online education.

The finding concerning the students with negative perceptions (49.6%) on the online learning method aligns with Zhafira et al. (2020), who argued that students need to have learning methods to motivate themselves to achieve their learning goals. The online lecture system is still perceived as a breakthrough or a new paradigm in teaching and learning activities because students and lecturers do not need to attend class. They only rely on an internet connection to conduct learning activities from faraway places [13]. Furthermore, also supported by the results of the study stated that several problems in online learning method in the COVID-19 pandemic such as technological factors,

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mental health, time management, and the balance between life and education. The study results also reported that the students are dissatisfied with the online learning experience due to distraction and reduced focus, psychological problems, and management issues [14].

The study conducted by Khan et al [6] showed that most of the students positively perceive the online learning system in the pandemic to maintain the educational process; however, there are several challenges, such as internet quality, digital information technology literacy, and economic conditions related to internet fee. However, the study results by reported that a different view of online learning activities in terms of soft skills do not be achieved, such as the face-to-face learning method in the class. Then, a study conducted by Kulal & Nayak [16] also revealed that students feel comfortable with the online learning process with support from educators. Yet, they could not provide a traditional classroom learning atmosphere because of technical problems and lack of training, impacting the ineffectiveness of online classroom learning by educators.

The world of education around the globe must process faster adaptation in the face of the COVID-19 pandemic by switching to online learning models to accelerate opportunities in facing the era of industrial revolution 4.0 as part of digital technology transformation [17-19]. Furthermore, Gurel and Tat[16] stated that opportunity is a situation or condition relevant for an activity that is positive and fun and has advantages and forces that encourage an action to occur.

This study shows that most respondents (51.4%) believe that the online learning method offers high opportunities. The COVID-19 pandemic crisis provides opportunities for lecturers to develop pedagogical innovations and create digital-based teaching curricula. One of which is that academics could teach and guide students in accessing e-learning technology and apply techniques that could design various flexible online programs to increase students' competence in problem-solving, critical thinking, and adaptability skills [20]. Furthermore, the previous study also mentioned that the students agree with the benefits and are very satisfied with their learning experience by using online learning methods [21]. However, the online learning method needs additional financial

burden due to fully online learning, namely cost to access and cost to acquire equipment [22].

The study results also show that more than half of the students (50.4%) found the online method in the COVID-19 pandemic is highly challenging. The forms of online learning challenges faced by students during the COVID-19 pandemic were internet access (25.1%), learning interactions (21.0%), learning facilities (17.9%), learning media (14.0 %), methods (13.3%), and learning materials (8.8%). Fearnley & Malay [23] stated positive developments in students' readiness for online learning. However, the results of Yaseen et al [25] research found challenges during online education, including concerns about the technological competence of lecturers and students, increased assignments, privacy issues, social inequality when activating videos, communication disorders due to internet network constraints, unable to assess student body language and soft-skills during the learning process, student absenteeism due to internet disconnection, ethical considerations due to increased plagiarism during assignment creation, online video skills laboratory and use of virtual laboratories not suitable as a substitute for practical demonstration. However, there are opportunities for reform in the learning process, although online learning is still not considered the best alternative to studying on campus [26].

Internet access for online-based learning is critical during the COVID-19 pandemic. The government's policy to reduce the spread of the COVID-19 virus or COVID-19 disease through physical and social distancing has shifted the offline to online learning method. The development of information technology impacts an increasingly effective learning process using computer-based technology. Media and technology adopted as facilitation in open and distance learning are also challenge the willingness to use learning models from students' perspectives [27]. Furthermore, in the digital era and the COVID-19 pandemic, educational institutions are increasingly promoting online learning, resulting in a shift from traditional face-to-face classes (offline) to distance learning (online) [28]. However, especially for the laboratory skills competencies, almost all the students mentioned that they are more satisfied with face-to-face than the online learning methods [29].

However, especially for the laboratory skills competencies, almost all the students mentioned that they are more satisfied with face-to-face than the online learning methods. This study results follow the statement by Muflih et al. (2021) which reported that the students expressed mixed feelings about online learning, and most of them supported face-to-face classroom learning. They are pessimistic about learning professional skills and core competencies online.

Conclusion and Recommendations

The online learning method is highly relevant and applied worldwide during the COVID-19 pandemic. The pandemic has altered the order of a community's lives in various aspects of life, including education. The existence of physical and social distancing policy with the obligation to learn from home has required online learning. The online learning methods provide several benefits, such as reducing the risk of COVID-19 transmission, increasing information and technology (IT) mastery skills, improving time management, and motivating students to learn independently.

Meanwhile, the opportunities for online learning methods in the COVID-19 pandemic are also significant, and the nursing students believe that online learning offers them high opportunities. These opportunities include using IT facilities, improving experiences in the learning process, enhancing creativity, allowing for critical and innovative thinking, providing opportunities to access learning resources, such as e-books, e-journals, e-libraries, and e-education, and enhancing self-management skills in time management in the process of completing requirements. Furthermore, the online learning methods are also highly challenging for nursing students during the COVID-19 pandemic. The challenges are internet access, internet data or fee, learning platform facilities, electrical power, environmental problems (natural and non-natural disturbances), and time constraints.

This results study provides feedback for the policymakers to prepare feasibly and good online learning platforms, internet facilities, costs, and IT personnel who could ensure the sustainable use

of this online method. The governments may improve the online learning method through increasing internet access, learning media, methods used, learning materials, learning interactions, and learning facilities.

Study Limitations

The study only focuses on a descriptive exploratory. A cross sectional design was not conducted hence it can not explore the factors associated with others several online learning methods.

Conflict of interest

The authors declare no potential conflict of interests with respect to the research, authorship, and/or publication of this article.

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Authors contribution

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REFERENCES

[1]   T. B. Alakus and I. Turkoglu, "Comparison of deep learning approaches to predict COVID-19 infection," *Chaos Solitons Fractals*, vol. 140, p. 110120, 2020, doi: 10.1016/j.chaos.2020.110120.

[2]   I. Duek and D. M. Fliss, "The COVID-19 pandemic - from great challenge to unique opportunity:perspective," *Annals of Medicine and Surgery*, vol. in press, pp. 1–18, 2020, doi: 10.1016/j.snb.2019.127065.

[3]   Ch. D. Anugrah, "Dinamika Pembelajaran Daring Di Tengah Pandemi Covid-19." pp. 1–3, 2020. *http://beritamagelang.id/kolom/dinamika-pembelajaran-daring-di-tengah-pandemi-covid-19.*

[4]   A. Démuth, *Perception Theories*, 1st ed., no. January 2013. Trnava: Faculty of Philosophy and Arts. Trnava Univeristy in Trnava, 2013, ISBN 978-83-7490-599-2. https://ff.truni.sk/sites/default/files/publikacie/demuth_philosophical_aspects_of_the_history_of_science_1.1.pdf

[5]   D. Henderson *et al.*, "Keep calm and carry on learning: using Microsoft Teams to deliver a medical education programme during the COVID-19 pandemic," *Future Healthc J*, vol. 7, no. 3, pp. e67–e70, 2020, doi: 10.7861/fhj.2020-0071.

[6]   M. A. Khan, T. Kamal, A. Illiyan, and M. Asif, "School students' perception and challenges towards online classes during covid-19 pandemic in india: An econometric analysis," *Sustainability (Switzerland)*, vol. 13, no. 9, 2021, doi: 10.3390/su13094786.

[7]   M. V. Mahajan and R. Kalpana, "A study of students' perception about e -learning," vol. 5, no. 4, pp. 501–507, 2018, doi: 10.18231/2394-2126.2018.0116.

[8]   Ch. D. Anugrah, "Dinamika Pembelajaran Daring Di Tengah Pandemi Covid-19." pp. 1–3, *2020,* http://beritamagelang.id/kolom/dinamika-pembelajaran-daring-di-tengah-pandemi-covid-19

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[9]   E. Agyeiwaah, F. Badu Baiden, E. Gamor, and F.-C. Hsu, "Determining the attributes that influence students' online learning satisfaction during COVID-19 pandemic," *J Hosp Leis Sport Tour Educ*, no. xxxx, p. 100364, 2021, doi: 10.1016/j.jhlste.2021.100364.

[10]   L. Gumede and N. Badriparsad, "Online teaching and learning through the students' eyes – Uncertainty through the COVID-19 lockdown: A qualitative case study in Gauteng province, South Africa," *Radiography*, vol. 28, no. 1, pp. 193–198, 2021, doi: 10.1016/j.radi.2021.10.018.

[11]   L. Gumede and N. Badriparsad, "Online teaching and learning through the students' eyes – Uncertainty through the COVID-19 lockdown: A qualitative case study in Gauteng province, South Africa," *Radiography*, vol. 28, no. 1, pp. 193–198, 2021, doi: 10.1016/j.radi.2021.10.018.

[12]   N. H. Zhafira, Y. Ertika, and Chairiyaton, "Persepsi Mahasiswa Terhadap Perkuliahan Daring Sebagai Sarana Pembelajaran Selama Masa Karantina Covid-19," *Jurnal Bisnis dan Kajian Strategi Manajemen*, vol. 4, pp. 37–45, 2020, ISSN: 2614-2147. http://jurnal.utu.ac.id/jbkan/article/view/1981/1454

[13]   N. Adijaya, "Persepsi Mahasiswa dalam Pembelajaran Online* *Pengembangan teori dari penelitian berjudul 'persepsi mahasiswa terhadap materi ajar pada pembelajaran online' yang telah dipublikasi di Jurnal Eduscience Vol. 3/1," *Wanastra: Jurnal Bahasa dan Sastra*, vol. 10, no. 2, pp. 105–110, 2018, doi: 10.31294/w.v10i2.3931.

[14]   M. Maqableh and M. Alia, "Evaluation online learning of undergraduate students under lockdown amidst COVID-19 Pandemic: The online learning experience and students' satisfaction," *Child Youth Serv Rev*, vol. 128, no. January, p. 106160, 2021, doi: 10.1016/j.childyouth.2021.106160.

[15]   A. Kulal and A. Nayak, "A study on perception of teachers and students toward online classes in Dakshina Kannada and Udupi District," *Asian Association of Open Universities*

Journal, vol. 15, no. 3, pp. 285–296, 2020, doi: 10.1108/aaouj-07-2020-0047.

[16] E. Gurel and M. Tat, "SWOT Analysis: A Theoretical Review," *The Journal of International Social Research*, vol. 10, no. 51, pp. 994–1006, 2017, doi: http://dx.doi.org/10.17719/jisr.2017.1832.

[17] C. Liguori, Eric; Winkler, "From Offline to Online: Challenges and Opportunities for Entrepreneurship Education following the COVID-19 Pandemic," *Angewandte Chemie International Edition, 6(11), 951–952.*, 2020, https://doi.org/10.1177/2515127420916.

[18] T. Favale, F. Soro, M. Trevisan, I. Drago, and M. Mellia, "Campus traffic and e-Learning during COVID-19 pandemic," *Computer Networks*, vol. 176, no. 1, pp. 1–9, 2020, doi: 10.1016/j.comnet.2020.107290.

[19] B. Indrawati, "Tantangan dan Peluang Pendidikan Tinggi Dalam Masa dan Pasca Pandemi Covid-19," *Jurnal Kajian Ilmiah*, vol. 1, no. 1, pp. 39–48, 2020, doi: 10.31599/jki.v1i1.261.

[20] S. Dhawan, "Online Learning: A Panacea in the Time of COVID-19 Crisis," *Journal of Educational Technology Systems*, vol. 49, no. 1, pp. 5–22, 2020, doi: 10.1177/0047239520934018.

[21] I. Thepwongsa, P. Sripa, R. Muthukumar, K. Jenwitheesuk, S. Virasiri, and P. Nonjui, "The effects of a newly established online learning management system: the perspectives of Thai medical students in a public medical school," *Heliyon*, vol. 7, no. 10, p. e08182, 2021, doi: 10.1016/j.heliyon.2021.e08182.

[22] S. Sarosa, "ScienceDirect ScienceDirect The perceived risks The effect effect of of perceived risks and and perceived perceived cost cost on on using using online online learning by high students learning by high school students," *Procedia Comput Sci*, vol. 197, no. 2021, pp. 477–483, 2022, doi: 10.1016/j.procs.2021.12.164.

[23] M. R. Fearnley and C. A. Malay, "Assessing students' online learning readiness: Are college freshmen ready?," *Asia-Pacific Social Science Review*, vol. 21, no. 3, pp. 249–259, 2021,

https://www.dlsu.edu.ph/wp-content/uploads/pdf/research/journals/apssr/2021-September-vol21-3/18-Assessing-Students-Online-Learning-Readiness-Are-College-Freshmen-Ready_.pdf.

[24] H. Yaseen, A. R. Alsoud, M. Nofal, O. Abdeljaber, and A. S. Al-Adwan, "The Effects of Online Learning on Students' Performance: A Comparison between UK and Jordanian Universities," *International Journal of Emerging Technologies in Learning*, vol. 16, no. 20, pp. 4–18, 2021, doi: 10.3991/ijet.v16i20.24131.

[25] H. Yaseen, A. R. Alsoud, M. Nofal, O. Abdeljaber, and A. S. Al-Adwan, "The Effects of Online Learning on Students' Performance: A Comparison between UK and Jordanian Universities," *International Journal of Emerging Technologies in Learning*, vol. 16, no. 20, pp. 4–18, 2021, doi: 10.3991/ijet.v16i20.24131.

[26] A. Appolloni, N. Colasanti, C. Fantauzzi, G. Fiorani, and R. Frondizi, "Distance learning as a resilience strategy during covid-19: An analysis of the italian context," *Sustainability (Switzerland)*, vol. 13, no. 3, pp. 1–12, 2021, doi: 10.3390/su13031388.

[27] O. T. Arulogun, O. N. Akande, A. T. Akindele, and T. A. Badmus, "Survey dataset on open and distance learning students' intention to use social media and emerging technologies for online facilitation," *Data Brief*, vol. 31, no. 1, pp. 1–8, 2020, doi: 10.1016/j.dib.2020.105929.

[28] O. T. Arulogun, O. N. Akande, A. T. Akindele, and T. A. Badmus, "Survey dataset on open and distance learning students' intention to use social media and emerging technologies for online facilitation," *Data Brief*, vol. 31, no. 1, pp. 1–8, 2020, doi: 10.1016/j.dib.2020.105929.

[29] C. Dong, S. Cao, and H. Li, "Young children's online learning during COVID-19 pandemic: Chinese parents' beliefs and attitudes," *Child Youth Serv Rev*, vol. 118, no. 1, pp. 1–9, 2020, doi: 10.1016/j.childyouth.2020.105440.

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[30]   S. Muflih, S. Abuhammad, S. Al-Azzam, K. H. Alzoubi, M. Muflih, and R. Karasneh, "Online learning for undergraduate health professional education during COVID-19: Jordanian medical students' attitudes and perceptions," *Heliyon*, vol. 7, no. 9, p. e08031, 2021, doi: 10.1016/j.heliyon.2021.e08031.

[31]   S. Muflih, S. Abuhammad, S. Al-Azzam, K. H. Alzoubi, M. Muflih, and R. Karasneh, "Online learning for undergraduate health professional education during COVID-19: Jordanian medical students' attitudes and perceptions," *Heliyon*, vol. 7, no. 9, p. e08031, 2021, doi: 10.1016/j.heliyon.2021.e08031.

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