

Perceived Learning Difficulties of Students in Flexible Learning in A Philippine State College

Julius Ruger Hermano¹, Sol Denamarca²

Article History:

Received 16.07.2021

Received in revised form

15.06.2022

Accepted

Available online 01.10.2022

The sudden shift from traditional classes to flexible learning due to the threat of the COVID-19 pandemic has led to numerous challenges. This descriptive research study was conducted at Iloilo State College of Fisheries to determine the perceived learning difficulties of the Second-Year College of Education students for the year 2021-2022. Data were obtained using a 20-item online survey questionnaire from 86 purposively selected respondents and subjected to certain computerized statistical tools for the analysis. The data revealed that students struggled mainly because of a lack of internet connection at home, long exposure to their gadgets, and balancing household chores and online activities. Thus, the slow internet connection may be improved, online classes may be limited only to one hour, and teachers may become more compassionate and understanding to students and attend various seminars to create an effective learning environment, improve teaching-learning situations using modern instructional devices and inspire them to become better teachers in the modern world. Infrastructure and mechanisms may also be established to reduce the interruption of learning and provide quality materials for education.

© IJERE. All rights reserved

Keywords: COVID-19 pandemic, Flexible learning, Learning Difficulties, HEI, Philippines

Introduction

Since the outbreak of the COVID-19 pandemic, education systems globally have been disrupted, affecting younger and more marginalized learners (Saavedra, 2021). It has worsened inequalities and exacerbated the pre-existing education crisis. Temporary closure of schools has been taken as one of the strategies to mitigate the Sars-Covid infection (UNESCO, 2021). As of April 06, 2020, UNESCO, reported that there were 1,576,021,818 affected learners out of 91.3% of the total enrolled learners in 188 countries in all levels of learning. According to (WHO-PHIL, 2020), in the Philippines, due to the 4,195 confirmed cases as of April 10, 2020, based on the Department of Health (DOH) online tracker report, the COVID-19 pandemic is without parallel, detrimental to the Philippine education system. Thus, the Commission on Higher Education (CHED), abruptly made sensible and pertinent modifications to continue delivering quality education and sustaining college students' academic progress. Hence, the country's teaching and learning in Higher Education Institutions immediately shifted to flexible learning (Joaquin, 2020).

However, transitioning smoothly from traditional face-to-face classes to flexible learning could not happen overnight. This sudden transition was linked to numerous challenges and predicaments (Crawford et al., 2020). The students have encountered mixed feelings of fear, loneliness, and uncertainty over what will happen with classes, exams, graduation, and other significant activities impacting their study path, such as platform accessibility issues notwithstanding potential coronavirus health risks (Veletsianos and Houlden, 2019). There is a need to conduct this study because this may assist and prepare the Philippine education system for such uncertainty as another pandemic in the future. The researchers believed that when students' perceived learning difficulties in flexible learning are identified, it may help not only the students and teachers but also the administration which is accountable for providing support and creating responsive educational strategies to lighten the difficulties that the students encounter in the new normal (Dayagbil et al., 2021). In addition, the findings can also contribute to the potential prospects distance learning can hold for the future (Fidalgo et al., 2020).

This study sought to identify the perceived learning difficulties of Second-Year College students in Flexible Learning at Iloilo State College of Fisheries, Tiwi, Barotac Nuevo, Iloilo for the years 2021-2022. Specifically, this study aimed to: (1) Determine the mode of learning used by the instructors of students in the implementation of flexible learning; and (2) determine the difficulties encountered by Second Year Students during Flexible Learning when grouped according to sex and major.

Method

The research design utilized in this study is descriptive research employing the Survey-analysis method.

¹ Iloilo State College of Fisheries, hermanojuliusruger@gmail.com, <https://orcid.org/0000-0002-6345-6465>

² Iloilo State College of Fisheries, solripper05@gmail.com, <https://orcid.org/0000-0003-2014-4338>

This investigation was conducted at Iloilo State College of Fisheries, Main Tiwi, Barotac Nuevo, Iloilo specifically in the college of Education. The respondents of this study consisted of Filipino students whose ages range from 20 to 21 years old. There were 86 respondents, 28 males, and 58 females purposively selected Bachelor of Secondary Education (BSEd) students in their second year from different majors officially enrolled in the year 2021-2022.

Purposive sampling technique was employed in the selection of the respondents for the study. The students in this investigation were grouped according to sex, major, and mode of learning.

This investigation utilized Semantic differential scale for the online survey questionnaire. In addition, the questionnaire distributed via Google Forms was researcher-made. This instrument was composed of two parts: (1) Collecting information on the demographic profile of the respondents and (2) a set of statements regarding the perceived learning difficulties encountered by the Second-Year College in flexible learning. To achieve the purpose of the study, the possible aspects of difficulties tailored from the study of Adnan & Anwar, (2020), entitled, "Online learning amid the COVID-19 pandemic: Students' perspectives" was modified in this study. The content of the questionnaire was categorized based on the following difficulties: students lack the needed gadgets, 1-3, 16; having a stable internet connection, 4-8; materials provided by the faculty are appropriate for online learning; access to faculty, 9-11; workload of students, 12-15; lack of environments conducive to learning at home, 17,19,20; and the effectiveness of the online lectures. Thus, the following learning difficulties are included in the questionnaire:

- Q1. Getting access to gadgets like mobile phones, laptops, or computers.
- Q2. Getting access to a decent internet connection at home.
- Q3. Getting access to a decent internet connection outside of the house.
- Q4. Getting access to information about school activities.
- Q5. Maintaining sufficient load balance for internet connection.
- Q6. Be able to attend online classes.
- Q7. Complete attendance in online classroom meetings.
- Q8. Active participation in online discussion with the instructor.
- Q9. Communicate with the instructor for questions regarding lessons.
- Q10. Quantity of online activities required by the instructor.
- Q11. Availability of instructors during assigned class schedule.
- Q12. Be able to submit assignments and other activities on time.
- Q13. Duration of online classes.
- Q14. Maintaining attention to online classes when social media can easily be accessed.
- Q15. Be able to attend online classes on time.
- Q16. Access to modules or hard copies.
- Q17. Balancing household chores and doing online school activities.
- Q18. Learning in flexible learning.
- Q19. Concentrate when studying at home and
- Q20. Long exposure to the screen of your cellphone, laptop, or computer.

The instrument was submitted for content validation to a panel of 3 jurors who considered their expertise in the field of research and test construction. Jurors' comments and suggestions for improvement of some items were integrated into the second draft of the rating scale before pilot testing. The instrument, with permission from the research adviser and the dean of the College of Education, was trial-tested among 30 students of different year levels at Iloilo State College of Fisheries chosen at random using Gay's (2012) proposal that 20% of the bigger population is required for statistical analysis to determine the construct validity of the rating scale. The data obtained from the trial testing were subjected to Cronbach Alpha to ensure their internal consistency and the result was .8 which was interpreted as good. These were utilized to achieve the purpose of the study.

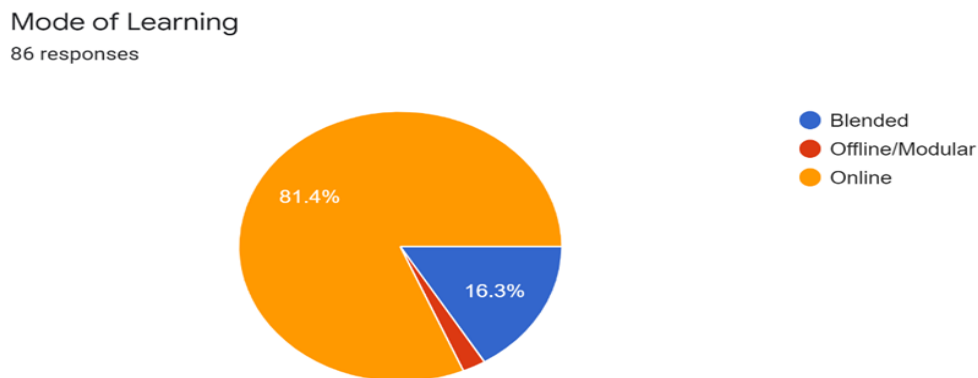
Permission to conduct the study on December 13, 2021, was secured from the Dean of the College of Education. Purposive sampling was employed in the selection of the respondents of the study. The researcher obtained the official list of BSEd Second-Year College students of different majors from the secretary of the College of Education. The researcher then designs the instrument based on the purpose of the study. The instrument as well as the content were validated by the three experts. Then distributed the questionnaire designed via Google Forms to the Messenger accounts of the respondents.

The data gathered from the Google Forms survey instrument was subjected to certain computerized statistics. The data for the study were analyzed using Statistical Package for the Social Sciences (SPSS).

Results

Based on the data obtained from a Google Forms survey instrument, of all 86 responses, 81.4% responded online, 2.3% responded offline and the remaining 16.3% responded to blended learning. Therefore, the mode of learning that most of the instructors used during flexible learning at Iloilo State College of Fisheries specifically for Second-Year College students is online.

Figure 1. Presents the percentage for the mode of learning used by the instructors of ISCOF



Considering the data obtained from the questionnaire, the researcher came up with the following results on difficulties specifically on sex and major.

Difficulties encountered according to sex.

For males, the difficulties include Q2. Getting access to a decent internet connection at home (M=4.67 & SD=1.75); Q5. Maintaining internet load for the data connection (M=4.56 & SD=2.06); Q6. Be able to attend online classes (M=4.48 & SD=1.72); Q16. Access to modules or hard copies (M=4.67 & SD=1.92); and Q17. Balancing household chores and doing online school activities (M=4.67 & SD=1.92). It can be said that the abovementioned difficulties are mostly experienced by males during the implementation of flexible learning.

Table 1. Difficulties encountered by Male Second-Year Students

Questions	Mean	SD	Rank
Q2	4.67	1.75	1.33
Q5	4.56	2.06	4
Q6	4.48	1.72	5
Q16	4.67	1.92	1.33
Q17	4.67	1.92	1.33

For females, the top difficulties are the following: Q2. Getting access to a decent internet connection at home (M=4.90 & SD=1.90); Q5. Getting access to a decent internet connection outside of the house (M=4.49 & SD= 1.78); Q6. Maintaining internet load for data connection (M=4.46 & SD=1.70); Q16. Balancing household chores and doing online school activities (M=4.58 & SD=1.76); and Q17. long exposure to the screen of their cellphone, laptop, or computer (M=4.51 & SD=1.84).

Table 2. Difficulties encountered by female Second- Year Students

Questions	Mean	SD	Rank
Q2	4.90	1.90	1
Q3	4.49	1.78	4
Q5	4.46	1.70	5
Q17	4.58	1.76	2
Q20	4.51	1.84	3

Difficulties encountered according to major

On the other hand, for Filipino majors, the difficulties they encountered include Q2. Getting access to a decent internet connection at home (M=4.69 & SD=1.89); Q3. Getting access to a decent internet connection outside of the house (M=4.56 & SD=1.71); Q5. Maintaining internet load for data connection (M=4.50 & SD=1.69); Q17. Balancing household chores and doing online school activities (M=4.44 & SD=1.80); and Q20. Long exposure to the screen of their cellphone, laptop, or computer (M=4.25 & SD=1.95).

Table 3. Difficulties encountered by Filipino Second-Year Students

Questions	Mean	SD	Rank
Q2	4.69	1.89	1
Q3	4.56	1.71	2
Q5	4.50	1.69	3
Q17	4.44	1.80	4
Q20	4.25	1.95	5

Whereas, for English majors, the difficulties include Q2. getting access to a decent internet connection at home (M=4.17 & SD=2.13); Q3. Getting access to a decent internet connection outside of the house (M=4.17 & SD=2.13); Q13. length of time of online classes (M=4.17 & SD=1.64); Q16. Access to modules or hard copies (M=4.33 & SD=1.88); and Q17. Balancing household chores and doing online school activities (M=4.25 & SD=1.97).

Table 4. Difficulties encountered by English Second-Year Students

Questions	Mean	SD	Rank
Q2	4.17	2.13	3.33
Q3	4.17	2.13	3.33
Q13	4.17	1.64	3.33
Q16	4.33	1.88	1
Q17	4.25	1.97	2

For mathematics majors, the data shows that the following difficulties are experienced: Q2. getting access to a decent internet connection at home (M=4.20 & SD=2.59); Q3. getting access to a decent internet connection

outside of the house (M=4.60 & SD=2.07); Q4. Getting access to information about school activities (M=4.20 & SD=2.28); Q17. Balancing household chores (M=4.20 & SD=2.59) and Q18. Doing online school activities and learning in flexible learning (M=4 & SD=2.83).

Table 5. Difficulties encountered by Mathematics Second-Year Students

Questions	Mean	SD	Rank
Q2	4.20	2.59	2.33
Q3	4.60	2.07	1
Q4	4.20	2.28	2.33
Q17	4.20	2.59	2.33
Q18	4	2.83	5

However, for science majors, it includes Q2. Getting access to a decent internet connection at home (M=5.17 & SD=1.94); Q5. Maintaining internet load for data connection (M=4.50 & SD=1.5); Q17. Balancing household chores and doing online school activities (M=5 & SD=1.27); Q18. Learning in flexible learning (M=4.50 & SD=1.27), and Q19. Be able to concentrate when studying at home (M=5 & SD=1.27).

Table 6. Difficulties encountered by Science Second-Year Students

Questions	Mean	SD	Rank
Q2	5.17	1.94	1
Q5	4.50	1.5	4.5
Q17	5	1.27	2.5
Q18	4.50	1.27	2.5
Q19	5	1.27	2.5

For the group of social science majors, it can be said that the difficulties are Q2. Getting access to a decent internet connection at home (M=4.94 & SD=1.81); Q3. Getting access to a decent internet connection outside of the house (M=4.56 & SD= 1.90); Q5. Maintaining internet load for data connection (M=4.50 & SD=1.71); Q13. Length of time of online classes (M=4.50 & SD=1.67); Q17. Balancing household chores and doing online school activities (M=5.3 & SD=1.59); and Q20. long exposure to the screen of your cellphone, laptop, or computer (M=5.19 & SD=1.72).

Table 7. Difficulties encountered by Social Science Second-Year Students

Questions	Mean	SD	Rank
Q2	4.94	1.81	3
Q3	4.56	1.90	4
Q5	4.50	1.71	5.5
Q13	4.50	1.67	5.5
Q17	5.38	1.59	1
Q20	5.19	1.72	2

Consequently, for BPED, the difficulties include, Q2. getting access to a decent internet connection at home (M=5 & SD=1.69); Q5. Maintaining internet load for the data connection (M=4.85 & SD=1.90); Q16. Access to modules or hard copies (M=4.70 & SD=1.95); Q17. Balancing household chores and doing online school activities (M=4.50 & SD=1.91); and Q20. long exposure to the screen of your cellphone, laptop, or computer (M=4.60 & SD=1.93).

Table 8. Difficulties encountered by BPED Second-Year Students

Questions	Mean	SD	Rank
Q2	5	1.69	1
Q5	4.85	1.90	2
Q16	4.70	1.95	3
Q17	4.50	1.91	5
Q20	4.60	1.93	4

Finally, for BTLED, it includes Q1. Getting access to gadgets like mobile phones, laptops, or computers (M=4.45 & SD=1.64); Q2. Getting access to a decent internet connection at home (M=5.36 & SD=1.57); Q5. Maintaining internet load for data connection (M=5.27 & SD=1.68); Q10. Quantity of online activities required by the instructor (M=4.45 & SD=1.37); and Q20. Long exposure to the screen of your cellphone, laptop, or computer (M=4.55 & SD=1.97).

Table 9. Difficulties encountered by BTLED Second-Year Students

Questions	Mean	SD	Rank
Q1	4.45	1.64	4.5
Q2	5.36	1.57	1
Q5	5.27	1.68	2
Q10	4.45	1.37	4.5
Q20	4.55	1.97	3

Discussion

The mode of learning used by the instructors during flexible learning in teaching the Second-Year College students of ISCOF is online. According to the study conducted by Serin, 2020, entitled *Virtual Reality in Education from the Perspective of Teachers*, online teaching is a critical breakthrough for the future of educational settings because it encourages students to be active, is suitable for students with schematic and visual thinking styles, provides students with a general idea about the subject, facilitates the implementation of information, makes it easier to learn, and provides a quick review of the course they have studied.

The findings revealed that the most common difficulties that appeared in both sexes are the following: Getting access to a decent internet connection at home; Maintaining internet load for data connection; and balancing household chores and doing online school activities. This result is supported by the findings of Chang et al. Consequently, a poor learning environment is detrimental for students to comfortably participate in remote learning. Establishing a positive and conducive learning space has long been a problem in distance education, especially in most poor households (Baticulon et al., 2020). If this problem occurs, study productivity and the utmost concentration of students are at stake (Chang & Fang, 2020). The sudden migration to remote learning in the middle of a health crisis has overlooked an unconducive learning

environment, which may affect the performance of students. The home is a less conducive environment for education if it lacks the mechanisms and infrastructure for uninterrupted and quality learning.

For different majors, the most common difficulties that frequently appeared in the data are as follow: Getting access to a decent internet connection at home; Getting access to a decent internet connection outside of the house; Maintaining internet load for data connection; Balancing household chores and doing online school activities; and long exposure to the screen of their cellphone, laptop, or computer. Consistent with previous studies (e.g., see Bao, 2020; Henaku, 2020; Entsie, 2020; Wisconsin, 2020; and Baticulon et al., 2020), the participants of this research similarly voiced unstable internet connectivity as one of the main difficulties they encounter in the practice of remote learning. The poor network is commonly a major problem for developing countries with telecommunication systems and ICT, not being properly developed (Aboagye et al., 2020). Although there are many existing internet bundles in the country, they are “fluctuating” and are not created equally in terms of speed and stability (Amadora, 2020). Furthermore, Slow Internet connections or limited access from homes in rural areas can contribute to students falling behind academically, according to a new report from Michigan State University’s Quello Center. The educational setbacks can have significant impacts on academic success, college admissions, and career opportunities. This study focused on identifying the perceived learning difficulties encountered by Second-Year College Students in Flexible Learning at Iloilo State College of Fisheries, Main Tiwi campus for the academic year 2021-2022. The respondents answered an online survey questionnaire in which the results were categorized based on Sex, Major, and Mode of Learning. The questionnaire focused on students lack the needed gadgets, having a stable internet connection, materials provided by the faculty are appropriate for online learning; access to faculty, workload of students, lack of environments conducive to learning at home, and the effectiveness of the online lectures.

Increasing the infrastructure that could send education to homes is a necessity during pandemics or even in normal times. It is a consistent problem that requires a direct solution. Certain family dynamics affect how education is being done at home. Chores, duties, and responsibilities become mixed with opportune time for getting education. The element of unimpeded system of learning is what is missing in most households especially for the middle and lower class of society. The government might introduce mechanisms that allow students to become unimpeded during class and study hours. Schools have the opportunity to implement systems that allow for remote, independent, and self-directed education with help from the family members. Studies could be undertaken to identify effective mechanisms for class and study hours. Also, schools should orient and organize parents as to their role in helping educate their children.

Acknowledgment

The Researchers would like to take this opportunity to express their gratitude and appreciation to the students who participated in the study and for the faculty and staff of ISCOF who were very cooperative.

References

- Aboagye, E., Yawson, J. A. & Appiah, K. N. (2020). COVID-19 and e-Learning: The challenges of students in tertiary institutions. *Social Education Research*, 1(1), 109-115. <https://doi.org/10.37256/ser.122020422>
- Adnan, M., & Anwar, K. (2020). Online learning amid the COVID-19 pandemic: Students' perspectives. *Journal of Pedagogical Sociology and Psychology*, 2(1), 45-51. <https://doi.org/10.33902/JPSP.2020261309>
- Amadora, M. G. (2020). *Common problems that occur during online classes*. Retrieved from <https://mb.com.ph/2020/09/18/common-problems-that-occur-during-online-classes/>
- Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking University. *Human Behavior and Emerging Technologies*, 2(2), 113-115. <https://doi.org/10.1002/hbe2.191>
- Basilaia, G., & Kvavadze, D. (2020). Transition to online education in schools during a SARS-CoV-2 Coronavirus (COVID-19) pandemic in Georgia. *Pedagogical Research*, 5(4). <https://doi.org/10.29333/pr/7937>

- Baticulon, R. E., Alberto, N. R., Baron, M. B., Mabulay, R. E., Rizada, L. G., Sy, J. J., Tiu, C. J., Clarion, C. A. & Reyes, J. C. (2020). *Barriers to online learning in the time of COVID-19: A national survey of medical students in the Philippines*. medRxiv. <https://doi.org/10.1101/2020.07.16.20155747>
- Chang, C. L. & Fang, M. (2020). E-Learning and online instructions of higher education during the 2019 Novel Coronavirus Diseases (COVID-19) Epidemic. *Journal of Physics: Conference Series*, 1574, 1-5. <https://doi.org/10.1088/1742-6596/1574/1/012166>
- Crawford, J., Butler-Henderson,K., Rudolph, J., Malkawi,B., Glowatz,M., Burton,R., Magni,P.A. & Lam,S.. (2020). COVID-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Teaching and Learning (JALT)* 3(1):1–20. <https://doi.org/10.37074/jalt.2020.3.1.7>.
- Dayagbil, F. T., Palompon, D. R., Garcia, L. L., & Olvido, M. M. J. (2021). Teaching and Learning Continuity Amid and Beyond the Pandemic. *Frontiers in Education*, 6. <https://doi.org/10.3389/feduc.2021.678692>
- Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crises. *Journal of Educational Technology*, 49(1), 5–22. <https://doi.org/10.1177/0047239520934018>
- Entsie, B., (2020). *10 Ghanaian students talk about the experience of e-learning*. Retrieved from <https://www.pulse.com.gh/lifestyle/10-ghanaian-students-talk-about-the-experience-of-e-learning/zfm19w5>
- Fidalgo, P., Thormann, J., Kulyk, O., & Lencastre, J. A. (2020). Students' perceptions on distance education: A multinational study. *International Journal of Educational Technology in Higher Education*, 17(1). <https://doi.org/10.1186/s41239-020-00194-2>
- Gay, L. R. Mills, G. E., Airasian, P. (2012). *Educational research: Competencies for analysis and applications*. 10th ed. pp. 139. Pearson Education, Inc.
- Gautam, P. (2021). *Advantages and disadvantages of online learning*. *E-learning industry*. <https://elearningindustry.com/advantages-and-disadvantages-online-learning>
- Henaku, E. A. (2020). COVID-19 online learning experience of college students: The case of Ghana. *International Journal of Multidisciplinary Sciences and Advanced Technology*, 1(2), 54-62. <https://www.researchgate.net/publication/342586709>
- Kaya,H. (2020). Investigation of the effect of online education on eye health in Covid-19 pandemic. *Journal of Critical Reviews*, 7(01). <https://doi.org/10.31838/jcr.07.01.57>
- Joaquin, J. J. B., Biana,H.T. & Dacela,M.A. (2020). The Philippine higher education sector in the time of COVID-19. *Frontiers*, 5:576371. doi: 10.3389/feduc.2020.576371.
- Khalil, R. (2020). The sudden transition to synchronized online learning during the COVID-19 pandemic in Saudi Arabia: A qualitative study exploring medical students' perspectives - *BMC Medical Education*, 20:285. BioMed Central. <https://bmcmmeduc.biomedcentral.com/articles/10.1186/s12909-020-02208-z>
- Kuensel (2020). *First confirmed coronavirus case in Bhutan*. Kuensel. <https://kuenselonline.com/first-confirmed-coronavirus-case-in-bhutan/>
- Magsambol, B. (2020). *Fast facts: Ched's flexible learning*. Rappler. <https://www.rappler.com/newsbreak/iq/things-to-know-ched-flexible-learning/>
- Patall, E. A., Hooper, S., Vasquez, A. C., Pituch, K. A., & Steingut, R. R. (2018). Science class is too hard: Perceived difficulty, disengagement, and the role of teacher autonomy support from a daily diary perspective. *Learning and Instruction*, 58, 220–231. <https://doi.org/10.1016/j.learninstruc.2018.07.004>
- Petrie, C. (2020). *Spotlight: Quality education for all during COVID-19 crisis*. United Nations. <https://hundred.org/en/collections/quality-education-for-all-during-coronavirus>
- Pokhrel, S., & Chhetri, R. (2021). A literature review on impact of COVID-19 pandemic on teaching and learning. *Higher Education for the Future*, 8(1), 133–141. <https://doi.org/10.1177/2347631120983481>

- Ravichandran, P., Shah, A. K. (2020 July). Shadow pandemic: Domestic violence and child abuse during the COVID-19 lockdown in India. *International Journal of Research in Medical Sciences*, 08(08), 3118. <https://doi.org/10.18203/2320-6012.ijrms20203477>
- Saavedra, J., Giannini, S. & Robert, J. (2021). *The state of the global education crisis: A path to recovery*. World Bank Blogs. <https://blogs.worldbank.org/education/state-global-education-crisis-path-recovery>
- Serin, H. (2020). Virtual reality in education from the perspective of teachers. *Revista Amazonia Investiga*, 9(26), 291–303. <https://doi.org/10.34069/ai/2020.26.02.33>
- Sintema, E. J. (2020). Effect of COVID-19 on the performance of grade 12 students: Implications for STEM education. *EURASIA Journal of Mathematics, Science and Technology Education*, 16(7). <https://doi.org/10.29333/ejmste/7893>
- Subedi, S., Nayaju, S., Subedi, S., Shah, S. K. & Shah, J. M. (2020). Impact of e-learning during COVID-19 pandemic among nursing students and teachers of Nepal. *International Journal of Science and Healthcare Research*, 5(3),68-76.
- The Theory of Planned Behavior (1991). *Behavioral change models*. <https://sphweb.bumc.bu.edu/otlt/mph-modules/sb/behavioralchange/theories/BehavioralChangeTheories3.html>
- Trafimow, D., Sheeran, P., Conner, M., & Finlay, K. A. (2002). Evidence that perceived behavioral control is a multidimensional construct: Perceived control and perceived difficulty. *British Journal of Social Psychology*, 41(1). <https://doi.org/10.1348/014466602165081>
- UNESCO (2021). *1.3 billion learners are still affected by the school or university closures, as educational institutions start reopening around the world, says UNESCO*. <https://en.unesco.org/news/13-billion-learners-are-still-affected-school-university-closures-educational-institutions>
- United Nations (2020). *Policy brief: Education during COVID-19 and beyond*. United Nations. https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/08/sg_policy_brief_covid-19_and_education_august_2020.pdf
- Vivas (2021). *Are you for or against flexible learning? Students and teachers weigh in on the issue*. Manila Bulletin. <https://mb.com.ph/2021/05/28/are-you-for-or-against-flexible-learning-students-and-teachers-weigh-in-on-the-issue/>
- Veletsianos, G. & Houlden, S. (2019). An analysis of flexible learning and flexibility over the last 40 years of distance education. *Distance Education*, 40(4), 454-468. <https://doi.org/10.1080/01587919.2019.1681893>
- Wisconsin (2020). *The online learning experience – a WIUC international student perspective*. Retrieved from <https://wiuc-ghana.edu.gh/the-online-learning-experience-a-wiuc-international-student-perspective/>
- Who-Phil(2020). *Coronavirus disease (Covid19) situation report*. <https://doh.gov.ph/covid19tracker>
- Zhu, H. (2020). *The novel coronavirus outbreak in Wuhan, China - Global Health Research and Policy*. *BioMed Central*. <https://ghrp.biomedcentral.com/articles/10.1186/s41256-020-00135-6>