TEACHER'S PERSPECTIVE ON THE IMPLEMENTATION OF ONLINE LEARNING IN ONE OF THE HIGHER EDUCATION INSTITUTIONS OF SOUTHERN PHILIPPINES

Mildred B. Benitez
College of Industrial Technology and Teacher Education, Caraga State University Cabadbaran City, Philippines
*Correspondence: E-mail addresses: mbbenitez@csucc.edu.ph

ABSTRACT. *As COVID-19 hit the world and nations worldwide have agreed to shut educational institutions down temporarily, Caraga State University Cabadbaran City adopted the online learning setup that replaces traditional face-to-face instruction. With this shift, most instructors were caught unprepared and struggled to convert the classroom setup to the online setup. This study was conducted to investigate the implementation of online learning at Caraga State University Cabadbaran City and determine whether appropriate interventions can be made. The study collected 77 responses from Caraga State University Cabadbaran City using simple random sampling through an adapted survey questionnaire distributed online and face-to-face. The study used four variables: usefulness, ease of use, characteristics of the students, and personal factors in online learning. Frequency and percentage, mean and standard deviation, ANOVA, and T-test were used to analyze the data. Based on the findings, the perceived usefulness and perceived ease of use of online learning is often observed. The participants find it useful during the pandemic, allowed them to use a wide range of course materials and references, helped them be more creative in teaching, allowed them to discuss lessons promptly, added flexibility and self-paced learning, and fast-tracked the computation and submission of grades. However, on the characteristics of students, it was concluded that the students are not eager to attend the online classes and are not taking them seriously. The findings would help the university administration determine appropriate interventions to help faculty members tackle the difficulties and challenges in implementing online learning.*

Keywords: Student's Characteristics, Teacher's Perspective, Online Classes, Online Learning, Ease of Use of Online Learning Usefulness of Online Learning.

1. INTRODUCTION

Online learning has become popular in the educational system globally. The availability of the internet can be attributed to the popularity of online learning which made education more convenient, enables better mastery, optimize performance, deepen memory, promote critical thinking, and enhance writing skills [1] In the Philippines, online learning has only been regarded in the previous several years. Although administrators and faculty members perceived that they are ready in terms of skills in selecting and integrating digital resources in teaching and learning, they are neither skillful when it comes to using learning management systems and other online class modalities [2]. Only a handful of universities and colleges that offers online courses in the Philippines, such as the University of the Philippines, Polytechnic University of the Philippines, University of Northern Philippines, Cebu Technological University, New Era University, CAP College Foundation, Mariano Marcos State University, West Visayas State University, Central Luzon State University, Benguet State University, and Pangasinan State University [3]. The University of the Philippines pioneered online teaching and learning when it established the Open University on February 23, 1995, through Republic Act 10650, or Open Distance Learning Law [4]. The University of the Philippines' Open University is the sole university that offers Massive Open Online Courses (MOOCs) in the Philippines in cooperation with Smart Communications Inc in 2013 [5].

However, with the emergence of the COVID-19 pandemic, online classes at the college and university level in the Philippines became mandatory. COVID-19 has resulted in a significant shift in the educational system in the Philippines and throughout the world which caught most Filipino teachers and educators unprepared.

Caraga State University Cabadbaran City (CSUCC) shifted from a face-to-face classroom setting to an online setting in compliance with the Inter-Agency Task Force for the Management of Emerging Infectious Diseases (IATF) and the Commission on Higher Education (CHED) guidelines to prevent the spread of COVID-19. Thus, CSUCC implemented the online learning setup after a short period of indefinite shutdown.

Online learning has received positive and negative perceptions from private and government universities as they are still adapting to the new educational setup. While technology makes things more accessible and more manageable, it may sometimes be restrictive, particularly in the Philippines [4], where many students lack internet access, and most parts of the country are not wired for the internet. As a result, challenges with attendance and engagement in online sessions arise, making adopting online education channels difficult.

According to a survey conducted in 2021 by Statista Research Department, 30% of Filipino respondents view the current distance learning as 20-50% effective compared to face-to-face learning in the Philippines as of April 2021. On the other hand, 14% of the respondents perceived the current distance learning as 80-100% effective compared to face-to-face learning.

Review of Related Literature

Online Learning in the Philippines

On March 11, 2020, the Philippines closed its borders and implemented strict quarantine policies. Non-essential personnel and individuals were not allowed to go out. Schools and non-essential establishments were closed to prevent the spread of the virus while waiting for the development of a vaccine. As a result, online classes at the college and university level became mandatory, educational systems have shifted, and virtual classes replaced actual classrooms across the country and the world. With online

education still in its early stages in the Philippines and even in other parts of the world, teachers, administrators, and students alike were caught unprepared. In fact, the need to convert classes to distance learning was eye-opening to many people especially about the possibility of employing educational technology to make virtual classrooms, live lectures, online assessments and quizzes, and document sharing in an efficient manner [6]. In a study by Garder, the developed countries have most of the resources required to convert classes to remote learning that were already in place at the institutions, such as existing learning management systems and conferencing software such as Zoom and MS Teams [7]. Some instructors and schools in developed countries even created their own technological solutions, modifying software or apps built for other purposes [8]. In the Philippines, on the other hand, only a handful of universities and colleges offer online courses, thus the infrastructure needed for the new normal setup is limited. The University of the Philippines pioneered online teaching and learning when it established the Open University on February 23, 1995, through Republic Act 10650, or Open Distance Learning Law. The University of the Philippines' Open University is the sole university that offers Massive Open Online Courses (MOOCs) in the Philippines in cooperation with Smart Communications Inc in 2013 [9]. According to Anderson, the field of online learning can be described as complex, diverse, and rapidly evolving [10]. He added that even with the rapid developments and emergence of new systems, it did not mean that any of the older systems were replaced, thus making online learning complex [10].

The Usefulness and Ease of Use of Online Learning

Due to the pandemic, schools around the world discontinued face-to-face instruction in 2020 [8]. Teachers were forced to convert face-to-face classes to online learning and restructure their curriculum from in-person education to online learning. In the first several weeks after the shift to online learning, insufficient attention was paid to teachers' real experiences converting their classrooms to online learning and then administering the classes [8]. The transition to online learning created a slew of issues for many instructors and staff members, many of whom needed greater levels of technological competence and expertise than they had previously attained [11]. When schools in the Philippines converted to online learning, it was viewed as both an opportunity for professional development and a huge challenge for teachers with the latter dominating the narratives [12]. He added that some of the issues included logistical limits caused by limited resources, increased effort, and worry over the quality of online education [12].

According to Ramberg in a case study he conducted in Stockholm, Sweden, any sudden change in the learning environment causes disparity and even depression among teachers [13]. Teachers, not only the students, are susceptible to stress especially those who are not within the "Millennial" and Gen Z timeframe [14]. Not all teachers are trained to teach online or virtually which causes distress and frustration [15]. In a study done here in the Philippines, "stress" and "mental state" are among the factors influencing the overall preparedness of students and teachers in integrating into online learning [16]. According to Granthorn, teachers in the Philippines are mostly stressed due to a lack of budget [17]. The Philippine government through the Department of Education (DepEd) introduced and supported the integration of ICT when they implemented the Basic Education Curriculum (BEC). With this, the Philippine Education Technology Masterplan was created which mandated that all public secondary schools (1) shall be provided with an appropriate educational technology package, (2) 75% of public secondary schools shall have computer laboratory room equipped with basic multimedia equipment, (3) all public secondary schools shall have an electronic library system, (4) 75% of all public secondary schools teachers shall have been trained in basic computer skills and the use of the Internet and computer-aided instruction; and (5) all learning areas of the curriculum shall be able to integrate the application of ICT, where appropriate. However, in a study done by Kubota, Yamamoto, and Morioka, rural schools in the Philippines are either not provided with computers or if provided, they are not fully functional and are not connected to the internet [18]. In the same study, they found out that teachers lack computer knowledge and skills for instructional purposes and lacked the motivation to teach computer-related topics. In addition, most of the public-school teachers have basic knowledge of ICT and need improvement and training [19].

Online learning has received positive and negative perceptions from private and government universities as they are still adapting to the new educational setup. While technology makes things more accessible and straightforward, it may sometimes be restrictive, particularly in the Philippines, where many students lack internet access, and most parts of the country are not wired for the internet. As a result, challenges with attendance and engagement in online sessions arise, making adopting online education channels difficult.

According to a survey conducted in 2021 by Statista Research Department, 30% of Filipino respondents view the current distance learning as 20-50% effective compared to face-to-face learning in the Philippines as of April 2021. On the other hand, 14% of the respondents perceived the current distance learning as 80-100% effective compared to face-to-face learning. They are investigating and analyzing how teachers view and experience online. Institutions can aid educational specialists in better understanding the phenomenon and making changes to meet the requirements of the teachers.

In a survey done in Malaysia on the impact of COVID-19 on online teaching and learning, there is an increasing percentage of online teaching skills scale of 5 (very skillful) from 10% to 17% and on a scale of 4 (skillful) increased from 33.4% to 55% which means that teachers are adapting and improving themselves on online learning [20]. In a literature review conducted by Mazlan, et al., they identified several challenges in online learning such as educators' and students' motivation, inadequate skills in online teaching and learning, and inadequate infrastructure in online teaching and learning [21]. According to Mardesci, successful online teaching and learning would be impossible to achieve without motivation from both sides, teachers and students [22]. One of the factors that might impact the success of online teaching and learning

is technological ability [23]. For instance, to upload videos on YouTube, the file needs to be resized and compressed to proper resolution for easy viewing [21]. Educators will struggle to produce resources for online teaching and learning without these technological skills [24]. Educators must also be familiar with the available learning platforms such as Microsoft Teams and Google Classroom to effectively utilize them in delivering online lessons [21]. A study conducted among lecturers of Universiti Utara Malaysia revealed that lecturers had low confidence in managing tasks related to online learning because of limited knowledge and skills in online teaching [25]. A similar study concluded that unfamiliarity with the platform used by the university has affected online teaching adversely [26]. The lecturers were found not to be well versed in using all the features in the online platform which has led them to lose confidence. Online teaching and learning require good internet access for both educators to deliver effective online teaching and to facilitate a more conducive learning environment [27].

Students' Characteristics in Online Learning

The attitude of students during online classes is also a challenge for teachers in implementing online learning. Students may not take online classes seriously due to several factors like motivation. Motivation can influence what students learn, how they learn, and when they choose to learn [28]. Educators' feedback may serve as a means of developing rapport between students and instructors in online courses [29]. In addition, online classes that support flexibility, and prompt educators' feedback will result in effective online teaching and learning and enhance students' motivation to participate in online teaching and learning [30, 31].

In a study conducted by Rizun and Strzelecki (2020), students believe that distance learning has been enhancing their effectiveness and productivity, self-efficacy, and students consider distance learning IT tools to be very intuitive, and they are generally comfortable with using computers and the internet, and they plan to use distance learning often during the semester. However, despite the positive opinions about distance learning education, the students would still like to go back to traditional education [32].

Accordingly, online learning readiness is influenced by comfort zone and must be provided by the school or college management [33, 34]. It can be concluded that all the learners who have positive insight regarding online learning which includes the comfort zone, accessibility, interactivity and adaptability, knowledge, acquisition, and ease of learning are those who intended not to give their input in one activity but to give input in every course for the sake of progression even in the crisis of COVID-19. They highlighted that the internet is not a good indicator to predict or analyze students' performance in learning platforms because they are not physically present as the pandemic situation has forced online learning. They are doing work through technology platforms that might be different from one learner to another [35, 36].

The importance of self-regulated learning is a heavily discussed topic in higher education [37]. Self-regulated learning practices and strategies are relevant and important factors in student learning outcomes within blended and online contexts and that self-regulated learner is aware of their strengths and weaknesses [38]. They set goals, and monitor their progress through self-reflection and the constant evaluation of their learning approaches, which enables them to adapt their engagement in academic-related tasks [39].

Statement of the Problem

This study aimed to explore the teachers' perspective on the implementation of online learning in one of the higher education institutions in Southern Philippines. Specifically, the study sought answers to the following questions:

1. What are the teachers' perspectives on the implementation of online learning in terms of:
   - 1.1 Usefulness;
   - 1.2 Ease of Use; and
   - 1.3 Students' Characteristics.

2. METHODOLOGY

2.1 Research Design

This research study employed a descriptive survey research design using a survey questionnaire. It is a quantitative research method that describes the teachers' perspective on the implementation of online learning in terms of usefulness, ease of use, students' characteristics, and personal factors.

2.2 Locale of the Study

This study was conducted in one of the higher education institutions in Southern Philippines, the Caraga State University Cabadbaran Campus (CSUCC). It is located at T. Curato Street, Barangay 11, City of Cabadbaran, Agusan del Norte, during the Academic Year (A.Y.) 2022. It is a government-run university offering tertiary technical-vocational education for free to Filipino citizens.

2.3 Research Participants

The participants of this study were the teachers from the four colleges and one department of the University, namely, the College of Business and Accountancy (CBA), College of Engineering and Information Technology (CEIT), College of Industrial Technology and Teacher Education (CITTE), College of Tourism and Hospitality Management (CTHM), and the Department of General Education (GenEd). The succeeding table shows the distribution of research participants by college/department.

Table 1.

Distribution of Participants by College/Department

College/Department	Frequency	Sample Size
CBA	10.39	8
CEIT	10.39	8
CITTE	33.77	26
CTHM	10.36	8
GenEd	35.06	27
Total		**77**

2.4 Sampling Technique

A simple random sampling technique was used to identify the participants of this study. A simple random sampling technique was used to identify the participants in this study [40]. It is a method of sampling where each member of the population has an equal chance of being chosen using an unbiased selection method. The researcher identified the total number of teachers employed for the A.Y. 2021-2022 from the four colleges and one department.

2.5 Research Instrument

The researcher used a combination of adopted survey questionnaires as a research instrument. The questions are from the study of Nambiar and Dziuban [41] to measure teachers' perspectives of the two main constructs which are the perceived usefulness, ease of use, and student characteristics.

Pilot testing was conducted to test the reliability of the research instrument. The questionnaire was administered to 30 Caraga State University teachers who were excluded as study participants.

Table 2| Results on the reliability of the instrument

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items	Interpretation
.93	.927	40	Highly Reliable

Table 2 shows the result on the reliability test of the instrument which was analyzed using Cronbach's alpha to determine the items' internal consistency. The data shows that 40 items for the pilot testing for the non-participants group which has Cronbach's value of .960 generated based on the standardized item value of .966 were found highly reliable.

2.6 Data Gathering Procedure

The survey questionnaires were distributed to the participants using multiple channels and platforms. Some of them participated online by filling out the Google Form distributed via Facebook messenger and email while others participated by filling out the printed questionnaires since limited face-to-face activities were already allowed. Minimum health protocols were observed during the conduct of limited face-to-face data collection.

2.7 Statistical Treatment of Data

To treat the data, Mean, and Standard deviation were used to determine the participants' perspectives on the usefulness, ease of use, teaching mode, student characteristics, and personal factors in online learning.

2.8 Scoring and Quantification of Data

To provide an in-depth analysis of the results, the parameter scale was used to determine the perception of teachers on the implementation of online learning. The 5-point Likert scale was used as an evaluation scale from 1 to 5, and the scale options and score ranges are given in the following tables based on the Principle of Rounding Off Numbers.

Table 3. Scoring Quantification with Verbal Interpretation

Rating	Mean Range	Descriptive Response	Implementation Level
5	4.50 – 5.00	Strongly Agree	Almost Always
4	3.50 – 4.49	Agree	Often
3	2.50 – 3.49	Uncertain	Sometime
2	1.50 – 2.49	Disagree	Seldom
1	1.00 – 1.49	Strongly Disagree	Never

3. RESULTS AND DISCUSSION

Teachers' perspectives on the implementation of online learning

Table 4. Illustrates the Participants' Assessment of the Usefulness of Online Learning.

Online learning:	Mean	SD	Verbal Interpretation
1. is useful during the pandemic	4.87	0.38	Almost always
2. allows me to use a wide range of course materials and references	4.68	0.57	Almost always
3. gives me more time to prepare instructional materials	4.31	0.75	Often
4. improves my motivation to use different online tools and platforms in teaching	4.38	0.67	Often
5. helps me to be a more creative teacher	4.40	0.65	Often
6. improves my style in the delivery of the subject matter	4.34	0.64	Often
7. improves my confidence in teaching	4.09	0.90	Often
8. opens opportunity for effective classroom monitoring and evaluation of my student's performance	3.64	1.19	Often
9. facilitates interaction with my students	3.35	1.13	Sometimes
10. facilitates setting up a more conducive learning environment	3.35	1.16	Sometimes
Grand Mean	**4.14**	**0.57**	**Often**

Table 4 shows the responses of the participants on the usefulness of online learning. With a grand mean of 4.14, it implies that teachers find online learning implementation useful during the pandemic. The participants responded that online learning allowed them to use a wide range of course materials and references and helped them be more creative in teaching. These findings are consistent with the studies of Vezne [42] saying that teachers were content with online learning and by Cidral et el. [43] which states that teacher's satisfaction is significantly influenced by teacher attitude, system quality, assessment variety, and information quality.

Table 5. Illustrates the Teacher's Assessment of the Ease of Use of Online Learning

Online learning:	Mean	SD	Verbal Interpretation
1. allows me to discuss lessons on a timely manner	4.22	0.82	Often
2. helps to easily manage the issues and concerns of the students	3.64	1.07	Often
3.elicits attentiveness and knowledge transfer	3.26	1.19	Sometimes
4. fast tracks the computation and submission of grades	4.25	0.95	Often
5. makes it easy to interact with my students	3.27	1.24	Sometimes
6. adds flexibility and self-paced learning	4.34	0.82	Often
7. more effective than classroom teaching	2.61	1.11	Sometimes
8. allows sufficient teacher-student interaction	2.90	1.03	Sometimes
9. more convenient compared to classroom teaching	3.42	1.15	Sometimes
10. increases the quality of discussion	3.18	1.19	Sometimes
11. makes it easier to engage the students during discussions	2.79	1.09	Sometimes
12. is safe and secure	3.66	1.13	Often
13. makes it easier to keep classes for longer duration	3.17	1.17	Sometimes
14. helps me to use innovative teaching methods	4.17	0.86	Often
15. improves virtual communication and collaboration	4.14	0.84	Often
Grand Mean	**3.53**	**0.69**	**Often**

The grand mean of 3.53 indicates that the implemented online learning is easy to use. It allows the teachers to add flexibility and self-paced learning and allows teachers to discuss lessons in a timely manner. This finding agrees with the studies of Alfalahat [44] which states that ease of use has a favorable impact on teachers' teaching intention and Estriegana et al., which states that it is relevant for evaluating online learning [45].

Table 6. Presents the Teacher's Assessment of the Student's Characteristics in Online Learning

The Student	Mean	SD	Verbal Interpretation
1. Students take online classes seriously	2.83	0.95	Sometimes
2. Students are eager to attend online classes	2.96	0.94	Sometimes
3. Students show interest and involvement during online classes	3.00	1.05	Sometimes
4. Interaction/collaboration is well-demonstrated	3.09	1.05	Sometimes
5. Students are observed to be very interested in doing their assignment	3.03	0.95	Sometimes
6. There is evidence that students are prepared for the day's lesson	2.90	0.93	Sometimes
Grand Mean	**2.97**	**0.79**	**Sometimes**

As shown in Table 6, the grand mean of 2.97 implies that teachers are not certain if students are taking online classes seriously, if they are eager and interested to attend online classes if they are interacting and collaborating, and if they are prepared for the day's lesson. This result is the same as the findings of Marek et al. when they asked the teachers how ready they thought their students were and to what degree students participated or disengaged in the converted distance learning class [46]. Although online learning seems to give students more time to learn, independence, and creativity in ICT [47], the result showed that students do not take online classes.

4. CONCLUSION

Based on the findings, the following conclusions were drawn.

The perceived usefulness and perceived ease of use of online learning is often observed. They find it useful during the pandemic, allowed them to use a wide range of course materials and references, helped them be more creative in teaching, allowed them to discuss lessons in a timely manner, added flexibility and self-paced learning, and fast-tracked the computation and submission of grades. However, on the characteristics of students, it was concluded that the students are not eager to attend online classes and are not taking them seriously.

5. REFERENCES

1. Gernsbacher, M. A. (2015). Why Internet-based education? *Frontiers in Psychology*, *5*, Article 1530. https://doi.org/10.3389/fpsyg.2014.01530
2. Alda, R., Boholano, H., & Dayagbil, F. (2020). Teacher education institutions in the philippines towards education 4.0. *International Journal of Learning, Teaching and Educational Research*, *19*(8), 137–154. https://doi.org/10.26803/ijlter.19.8.8
3. https://www.courses.com.ph/college-courses-in-the-philippines/
4. https://www.upou.edu.ph/home/
5. Castel, Dr. M. E. A. U. (2018). Analysis on the Rise of MOOCs and its Potential Impact in Modernizing Education Beyond Higher Education Amongst Filipino College Graduates. *International Journal of Science and Research (IJSR)*, *7*(4), 708–716. Retrieved from https://www.ijsr.net/archive/v7i4/ART20181416.pdf
6. Covid 19: A massive exposure towards web based learning. (2020). *Journal of Xidian University*, *14*(4). https://doi.org/10.37896/jxu14.4/266
7. Garder, L. (2020). Covid-19 has forced higher ed to pivot to online learning . Here Are 7. *The Chronicle of Higher Education*, *7*, 1–5. Retrieved from https://www.chronicle.com/article/covid-19-has-forced-higher-ed-to-pivot-to-online-learning-here-are-7-takeaways-so-far/
8. Marek, M. W., Chew, C. S., & Wu, W. C. V. (2021). Teacher experiences in converting classes to distance learning in the covid-19 pandemic. *International Journal of Distance Education Technologies*, *19*(1), 89–109. https://doi.org/10.4018/IJDET.20210101.oa3
9. Castel, Dr. M. E. A. U. (2018). Analysis on the Rise of MOOCs and its Potential Impact in Modernizing Education Beyond Higher Education Amongst Filipino College Graduates. *International Journal of Science and Research (IJSR)*, *7*(4), 708–716. Retrieved from https://www.ijsr.net/archive/v7i4/ART20181416.pdf
10. Anderson, T. (2008). *Theory and practice of online learning* (2nd ed.) AU Press, Athabasca University https://eddl.tru.ca/wp-content/uploads/2018/12/01_Anderson_2008-Theory_and_Practice_of_Online_Learning.pdf
11. Gillett-Swan, J. (2017). The Challenges of Online Learning: Supporting and Engaging the Isolated Learner. *Journal of Learning Design*, *10*(1), 20. https://doi.org/10.5204/jld.v9i3.293
12. Collado, Z. C., Concha, C. B. A., & Orozco, N. M. I. G. (2022). Teaching in Transition: How Do Filipino Teachers Face the Migration to Cyberspace amid the Pandemic? *Computers in the Schools*, *38*(4), 281–299. https://doi.org/10.1080/07380569.2021.1988317
13. Ramberg, J., Brolin Låftman, S., Åkerstedt, T., & Modin, B. (2020). Teacher Stress and Students' School Well-being: the Case of Upper Secondary Schools in Stockholm. *Scandinavian Journal of Educational Research*, *64*(6), 816–830. https://doi.org/10.1080/00313831.2019.1623308
14. Al-Fudail, M., & Mellar, H. (2008). Investigating teacher stress when using technology. *Computers and Education*, *51*(3), 1103–1110. https://doi.org/10.1016/j.compedu.2007.11.004
15. Dziuban, C., Graham, C. R., Moskal, P. D., Norberg, A., & Sicilia, N. (2018). Blended learning: the new normal and emerging technologies. *International Journal of Educational Technology in Higher Education*, *15*(1). https://doi.org/10.1186/s41239-017-0087-5

16. Callo, E. C., & Yazon, A. D. (2020). Exploring the factors influencing the readiness of faculty and students on online teaching and learning as an alternative delivery mode for the new normal. *Universal Journal of Educational Research*, *8*(8), 3509–3518. https://doi.org/10.13189/ujer.2020.080826
17. Granthorn, P&A. (2020). What will schools look like under the "new normal"? https://www.grantthornton.com.ph/insights/articles-and-updates1/from-where-we-sit/what-will-schools-look-like-under-the-new-normal/
18. https://journal.umy.ac.id/index.php/GPP/article/view/4965/0
19. Caluza, L. J. B., Verecio, R. L., Funcion, D. G. D., Quisumbin, L. A., Gotardo, M. A., Laurente, M. L. P., … Marmita, V. (2017). An Assessment of ICT Competencies of Public School Teachers: Basis for Community Extension Program. *IOSR Journal of Humanities and Social Science*, *22*(03), 01–13. https://doi.org/10.9790/0837-2203040113
20. Ismail, S., Mohammad Ilham Husaini Mohammad Nazeri, & Sharifah Fairuz Syed Mohamad. (2021). The Impact of Covid-19 on Online Teaching and Learning (TnL) Towards Teachers in Malaysia. *Malaysian Journal of Science Health & Technology*, *7*(2), 15–22. https://doi.org/10.33102/mjosht.v7i2.169
21. Mazlan, A. F., Mohamad, M., Reesha, A., Kassim, R., Othman, Z., & Kummin, S. (2021). Challenges and Strategies to Enhance Online Remote Teaching and Learning by Tertiary Institution Educators: A Literature Review. *Creative Education*, *12*(04), 718–726. https://doi.org/10.4236/ce.2021.124050
22. Mardesci, H. (2020). The Effect of Online Learning on University Students' Learning Motivation. *JPP (Jurnal Pendidikan Dan Pembelajaran)*, *27*(1), 42–47. https://doi.org/10.17977/um047v27i12020p042
23. Sulaiman, F. (2014). Online Learning in Higher Education in Malaysia: A Case Study of Students' Future Expectations. https://www.semanticscholar.org/paper/Online-Learning-in-Higher-Education-in-Malaysia%3A-A-Sulaiman/9930355f2fe0b8007394c73e40dffc0eb349da81#citing-papers
24. Azlan, C. A., Wong, J. H. D., Tan, L. K., Muhammad Shahrun, M. S. N., Ung, N. M., Pallath, V., … Ng, K. H. (2020). Teaching and learning of postgraduate medical physics using Internet-based e-learning during the COVID-19 pandemic – A case study from Malaysia. *Physica Medica*, *80*, 10–16. https://doi.org/10.1016/j.ejmp.2020.10.002
25. Shaharanee, I. N. B. M., Abu Bakar, M. S., Nordin, H., Ibrahim, N. M. B. H., Jamil, J. M., & Ang, J. S. (2020). Assessing lecturer's readiness for online learning implementation during COVID-19 outbreak. *Elementary Education Online*, *19*(2), 79–84. https://doi.org/10.17051/ilkonline.2020.02.109
26. Adi Badiozaman, I.F., Leong, H.J. and Wong, W. (2022), "Embracing educational disruption: a case study in making the shift to a remote learning environment", *Journal of Applied Research in Higher Education*, Vol. 14 No. 1, pp. 1-15. https://doi.org/10.1108/JARHE-08-2020-0256
27. Abd Aziz, N. A. ., Abd Aziz, N. N., Musa, M. H. ., Abdul Malik, S. ., Mohamad Khalid, R. ., & ST MKom, N. N. . (2020). Exploring Barriers Contributing towards an Effective Online Learning among Undergraduates' Students using PLS-SEM. *Environment-Behaviour Proceedings Journal*, *5*(15), 71-76. https://doi.org/10.21834/ebpj.v5i15.2511
28. Schunk, D. H., & Usher, E. L. (2019). Social cognitive theory and motivation. In R. M. Ryan (Ed.), *The Oxford handbook of human motivation* (pp. 11–26). Oxford University Press. https://psycnet.apa.org/record/2019-54239-002
29. Frisby, B.N., Limperos, A.M., Record, R.A., Candidate, D., & Downs, E. (2013). Students' Perceptions of Social Presence: Rhetorical and Relational Goals Across Three Mediated Instructional Designs. https://www.semanticscholar.org/paper/Students%27-Perceptions-of-Social-Presence%3A-and-Goals-Frisby-Limperos/fef675f241f95d6c3c6bf6ef91c42dcd585b3732
30. Crews, T., & Butterfield, J. B. (2014). Data for Flipped Classroom Design: Using Student Feedback to Identify the Best Components from Online and Face-to-Face Classes. *Higher Education Studies*, *4*(3). https://doi.org/10.5539/hes.v4n3p38
31. Cole, A.W., Nicolini, K.M., Anderson, C., Bunton, T., Cherney, M.R., Fisher, V.C., Draeger, R., Featherston, M., Motel, L., Peck, B. & Allen, M. (2017). Student Predisposition to Instructor Feedback and Perceptions of Teaching Presence Predict Motivation toward Online Courses. *Online Learning*, *21*(4), 245-262. Retrieved April 18, 2023 from https://www.learntechlib.org/p/189539/.
32. Rizun, M., & Strzelecki, A. (2020). Students' acceptance of the covid-19 impact on shifting higher education to distance learning in Poland. *International Journal of Environmental Research and Public Health*, *17*(18), 1–19. https://doi.org/10.3390/ijerph17186468
33. Fahrurrozi, Murtono, Lestari, I., Sarifah, I., & Dewi, R. S. (2021). The usefulness of online learning on quality of education during covid-19 pandemic: Evidence from the department of elementary school

teacher education at universitas Negeri Jakarta, Indonesia. *International Journal for Quality Research*, *15*(1), 107–124. https://doi.org/10.24874/IJQR15.01-06

34. Smith, P.J., Murphy, K.L. & Mahoney, S.E. (2003). Towards Identifying Factors Underlying Readiness for Online Learning: An Exploratory Study. *Distance Education, 24*(1), 57-67. Retrieved April 18, 2023 from https://www.learntechlib.org/p/97647/.
35. Barnard, L., Lan, W. Y., To, Y. M., Paton, V. O., & Lai, S. L. (2009). Measuring Self-Regulation in Online and Blended Learning Environments. The Internet and Higher Education, 12, 1-6.
36. https://doi.org/10.1016/j.iheduc.2008.10.005
37. Hung, J.-L., & Zhang, K. (2012). Examining Mobile Learning Trends 2003-2008: A Categorical Meta-Trend Analysis Using Text Mining. Journal of Computing in Higher Education, 24, 1-17.
38. http://dx.doi.org/10.1007/s12528-011-9044-9
39. Llacuna, H., & Mason, G. (2022). Promoting self-regulated learning in higher education. *Pacific Journal of Technology Enhanced Learning*, *4*(1), 19-20. https://doi.org/10.24135/pjtel.v4i1.143
40. Broadbent, J., & Poon, W. L. (2015). Self-regulated learning strategies & academic achievement in online higher education learning environments: A systematic review. *The Internet and Higher Education*, *27*, 1–13. https://doi.org/10.1016/j.iheduc.2015.04.007
41. E. Hawe, U. Lightfoot & H. Dixon (2019) First-year students working with exemplars: promoting self-efficacy, self-monitoring and self-regulation, Journal of Further and Higher Education, 43:1, 30-44, DOI: 10.1080/0309877X.2017.1349894 https://www.tandfonline.com/doi/abs/10.1080/0309877X.2017.1349894
42. Simkus, J. (2022, Jan 26). *Simple Random Sampling: Definition, Steps and Examples*. Simply Psychology. https://www.simplypsychology.org/simple-random-sampling.html
43. Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management science*, *46*(2), 186-204. https://www.researchgate.net/publication/227447282_A_Theoretical_Extension_of_the_Technology_Acceptance_Model_Four_Longitudinal_Field_Studies
44. Vezne R. Teacher candidates satisfaction with massive open online courses in Turkey. Cypriot J. Educ. Sci. 2020;15(3):479–491. https://www.researchgate.net/publication/342542320_Teacher_candidates'_satisfaction_with_massive_open_online_courses_in_Turkey
45. Cidral, W. A., Oliveira, T., Di Felice, M. & Aparicio, M. (2018). E-learning success determinants:Brazilian empirical study. Computers and Education. 122, 273-290 https://www.academia.edu/79958368/E_learning_success_determinants_Brazilian_empirical_study
46. Falah Alfalahat, F. M. (2021). Factors Affecting School Teachers' Satisfaction with Online Classes during the Outbreak of COVID-19. *Asian Journal of Education and Social Studies*, *25*(2), 1–11. https://doi.org/10.9734/ajess/2021/v25i230593
47. Estriegana, R., Medina-Merodio, J.A. & Barchino, R. (2019). Student acceptance of virtual laboratory and practical work: An extension of the technology acceptance model. *Computers & Education*, *135*(1), 1-14. Elsevier Ltd. Retrieved April 18, 2023 from https://www.learntechlib.org/p/208189/.
48. Marek, M. W., Chew, C. S., & Wu, W. V. (2021). Teacher Experiences in Converting Classes to Distance Learning in the COVID-19 Pandemic. *International Journal of Distance Education Technologies (IJDET), 19*(1), 89-109. http://doi.org/10.4018/IJDET.20210101.oa3
49. Arante, Ramil & Castro, Cheela Mae (2023). LEARNER'S PERSPECTIVE ON THE IMPLEMENTATION OF ONLINE LEARNING IN ONE UNIVERSITY OF SOUTHERN PHILIPPINES. 35. 41-46. https://www.researchgate.net/publication/367333115_LEARNER'S_PERSPECTIVE_ON_THE_IMPLEMENTATION_OF_ONLINE_LEARNING_IN_ONE_UNIVERSITY_OF_SOUTHERN_PHILIPPINES