EFFECTS OF ONLINE LEARNING ON THE ACADEMIC PERFORMANCE OF CRIMINOLOGY STUDENTS

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ABSTRACT: *One method of delivering the target learning competencies to each learner is through online learning. F.L. Vargas College responded to this demand by appropriately adapting the new learning norm. However, the method of instruction used at F.L. Vargas College is a hybrid of online and modular learning. However, most students prefer to enroll in online programs because they can work at their own pace, communicate with their teachers, and learn more.This study aimed to determine the effects of online learning on the academic performance of the Criminology Students at F.L Vargas for the first semester of Academic Year 2020 – 2021. This study used the descriptive–correlational method of research. It involves the measurements of two or more relevant variables and assessment of the relationship between or among those variables. The gathering of data was done through a modified questionnaire to determine the present condition during the time of the study which was adopted from the study of Dzuiban, C. et al. (2015) entitled, "Students Satisfaction with Online Learning: Is it a Psychological Contract". The respondents of this study were the selected students from the criminology program who experience online classes utilizing the purposive sampling technique. In the analysis of the data gathered, frequency counts, percentages, mean, and Pearson r were used. Based on the results of the*

study, it can be concluded that online learning is very effective where students are more engaged in various online courses. The students can easily understand course requirements better in an online course. Moreover, response time from teachers and assistants is quicker in online courses. However, the findings revealed that students have difficulty acquiring for internet connection because it is very expensive for them. In line with the findings, parents, and teachers should always keep track of the students' academic performance and conduct a parallel study to include other dimensions that were not included in this study.

***KEYWORDS**: online learning, academic performance, access, efficiency, e-learning, pandemic, covid-19, internet stability,*

INTRODUCTION

Due to an unexpected increase in cases in the Philippines, the Commission on Higher Education (CHED) pushed for modular and online learning towards the conclusion of the first quarter of 2020. The abrupt epidemic has put the lives of millions of Filipino students at jeopardy. As per the order of CHED, face-to-face classes are temporarily canceled and replaced by various learning modalities.

L. Kietzmann (2019) claims that everything these days appears to be migrating online. Our education is also migrating to the internet. Online learning makes use of mobile and web-based technologies to build highly interactive platforms where people and communities may share, co-produce, discuss, and modify content created by others. Traditional learning methods have recently been enhanced by new technologies. As a result, an increasing number of people are opting to develop their abilities through online learning. The majority of people believe it is advantageous, although others contend that it has drawbacks as well. Many people are looking for new ways to learn. Online learning is one of the most common approaches.

According to Dane, P. (2017), online learning is becoming increasingly popular. Many established colleges have begun to provide free online courses. It represents a simple and convenient way to learn practically any subject, from law and accounting to human sciences such as psychology, sociology, and history. Online learning is a fantastic alternative to traditional institutions, particularly for those who cannot afford the time or money to attend

regular classes. Although many people still believe that attending a traditional university is the best way to gain knowledge and acquire a credential, online learning has proven to be an excellent option. Students have the option of studying on their own time and for free. It's an excellent approach to learn about a variety of topics.It is an excellent technique to study a variety of subjects while also increasing self-motivation. Students benefit from online learning since they may complete their schoolwork fast, leaving more time for hobbies or job hunting. Only a small group of people, on the other hand, can develop correctly. Students learn how to make friends, be patient, deal with disappointment, and compete in school. Colleague competition can be quite stimulating, and pupils will only profit from it. Human interaction is not possible with online learning.

Yort, H. Academic achievement or academic performance, according to (2017), is the result of education — the degree to which a student, teacher, or institution has met their educational objectives. Academic achievement refers to a person's performance outcomes that show how far they have progressed.
specified objectives that were the focus of activity in educational settings, such as schools, colleges, and universities In the same way, James, M. (2014) argues that a student's academic achievement is extremely significant in both schooling and the learning process. It is regarded as a critical criterion for assessing one's complete potentialities and capacities, which are commonly assessed through examination results. It is used to assess the educational quality provided by academic institutions. In fact, it is still the most topical debate in higher learning institutions that caused great concern to educators and researchers due to the alarming examination performance of students.

One method of delivering the target learning competencies to each learner is through online learning. F.L. Vargas College responded to this demand by appropriately adapting the new learning norm. However, the method of instruction used at F.L. Vargas College is a hybrid of online and modular learning. However, most students prefer to enroll in online programs because they can work at their own pace, communicate with their teachers, and learn more.

Given the distinctions between e-learning, m-learning, and d-learning, we may argue that the phrase "online learning" in this study is a hybrid of the three. Online learning is undeniably difficult for students. One of these issues is determining how users can effectively use technology and assuring participants' commitment in light of unique learner characteristics and technology encounters (Hofmann, 2018). Many people are having difficulty utilizing technology. Due to financial constraints, most students are unable to purchase the required materials. The reality that technology is costly cannot be ignored by students .To properly participate in online learning, students and teachers typically need a computer, tablet, laptop, or mobile phone. Learners are obliged to spend extra money on gadgets in addition to the other school-related expenses. Online learning is a popular method of instruction. It also takes a lot of patience, and students must work their way through it, especially those who live in remote areas with low internet access.

STATEMENT OF THE PROBLEM

This study aimed to determine the effects of online learning on the academic performance of the Criminology Students at F.L Vargas for the First Semester Academic Year 2020 - 2021.Specifically, it sought answers to the following problems:

1. What is the profile of the respondents in terms of:
    1.1. Age
    1.2. Gender
    1.3. Civil Status
    1.4. Highest Education of attainment of parents
    1.5. Occupation of Parents
    1.5. Gadgets Used at Home
2. What is the academic performance of the respondents during the 1st semester of the SY 2020-2021?
3. What are the effects of online learning on the academic performance of the 4th-year criminology students.
    3.1. Access
    3.2. Efficiency
    3.3. Social Interaction

3.4. Cost

4. Is there a significant relationship between the effects of online learning and the academic performance of the respondents?

5. Is there a significant relationship between the profile of the respondents and the effects of online learning?

HYPOTHESES

This study was guided by the following hypotheses that:

1. There is no significant relationship between the effects of online learning and the academic performance of the respondents.

2. There is no significant relationship between the profile of the respondents and the effects of online learning.

RESEARCH METHODOLOGY

The descriptive–correlational research method was adopted in this study. It entails the measurement of two or more relevant variables, as well as the evaluation of the relationship between or among them. The variables of dependents and independents, for example, are systematically associated. A questionnaire was used to collect data and determine the current state of affairs at the time of the study. The main instrument for the study was derived from the researcher's descriptors of the most important aspects of online learning. However, the consultant meticulously verified and counter-checked the tool prior to its reproduction, and recommendations and adjustments were integrated before its administration. The questionnaire was adapted from Dzuiban's study "Students Satisfaction Online Learning: Is it a Psychological Contract”

The respondents of this study were the selected students from criminology who experience online classes. The stratified random sampling technique was used in the selection of the respondents of the study.

In order to determine the profile of the respondents, the frequency count and percentage distribution were employed.

The weighted mean was computed to determine the mean assessment on the effect of online learning on the academic performance of the 4th-year criminology students. The following mean range defined the interpretation of the data:

NUMERICAL VALUE	MEAN RANGE	DESCRIPIVE INTEPRETATION
4	3.26 – 4.00	Always
3	2.51 – 3.25	Often
2	1.76 – 2.50	Sometimes
1	1.00 – 1.75	Never

The Pearson-r was employed in determining the significant relationship between online-learning and academic performance and the significant relationship between the profile of the respondents and the effects of online learning.

RESULTS AND DISCUSSIONS

Table 1a: Frequency and Percentage Distribution of the Respondents Relative to Age

Age	Frequency	Percentage
25	8	11.43
24	19	27.14
23	36	51.43
22	4	5.71
21	3	4.29
Total	70	100.00

Mean Age=23.35

Table 1.a shows the frequency and percentage distribution of the respondents' profile relative to age. The table shows that majority of the respondents with a frequency of 36 or 51.43 percent are aged 23 years while the least – numbered, 3 or 4.29 percent are aged 21. With a mean age of 23.35, the result implies that all of the student-respondents are already at the age of majority and under the young adult bracket.

Table 1b: Frequency and Percentage Distribution of the Respondents Relative to Sex

Gender	Frequency	Percentage
Male	35	50.00
Female	35	50.00
Total	70	100.00

Table 1.b shows the frequency and percentage distribution of the respondents' profiles relative to sex. As shown by the table, the male student – respondents and the female student – respondents have the same frequency of 35 or 50 percent. The result implies that although the criminology program is knowns a male-dominated, more women are now entering the field of criminology.

Table 1c: Frequency and Percentage Distribution of the Respondents Relative to Civil Status

Civil Status	Frequency	Percentage
Single	68	97.14
Married	2	2.86
Total	70	100.00

Table 1.c shows the frequency and percentage distribution of the respondents' profile relative to civil status. As shown above, 68 or 97.14 percent are single, while 2 or 2.86 percent are married. It can be seen from the result that being married as an undergraduate student is not the norm and the context of being married may have implications for individuals' academic performance (United States Department of Education, 2014).

Table 1d: Frequency and Percentage Distribution of the Respondents Relative to Highest Educational Attainment of Parents

Highest Educational Attainment	Father		Mother	
	Frequency	Percentage	Frequency	Percentage
College Graduate	17	24.29	10	14.29
High School Graduate	26	37.14	33	47.14
Elementary Graduate	27	38.57	27	38.57

Total	70	100.00	70	100.00

Table 1.d shows the frequency and percentage distribution of the respondents' profile relative to the highest educational attainment of parents. The table shows that the father of the 27 or 38.57 percent of the student-respondents graduated from elementary while 26 or 37.14 percent are high school graduate and only 17 or 24.29 percent have finished a degree. On the other hand, majority or 33 of the students-respondent mothers are high school graduate followed by 27 or 38.57 are elementary graduate, meanwhile 10 of the respondents' mother are college graduate. The result confirms an article entitled poverty in the Philippines which states that majority of Filipino households have only achieved basic levels of education. It can be seen from the data gathered that parents having a low educational attainment is not a hindrance to pursue a college degree for the student-respondents.

Table 1e: Frequency and Percentage Distribution of the Respondents Relative to Occupation of Parents

Occupation of Parents	**Father**		**Mother**	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Government Employee	5	7.14	7	10.00
Private Employee	5	7.14	2	2.86
Self-Employed	60	85.71	61	87.14
Total	70	100.00	70	100.00

Table 1.e shows the frequency and percentage distribution of the respondents' profile relative to the occupation of parents. As seen from the table, 60 or 85.72 percent of the respondents' father and 61 or 87.14 percent of the respondents' mother are self-employed. The result shows that majority of the parents belongs to the informal economy and belongs to the 11.1 self-employed workers in the Philippines as per the data coming from the Philippine Statistics Authority. The respondents also belong to the 36.14% self-employed as per the World Bank data and considered as the most predominant form of employment.

Table 1f: Frequency and Percentage Distribution of the Respondents Relative to Gadgets Used at Home

Gadgets Used at Home	Frequency	Percentage
Cellphone	56	80.00
Laptop	9	12.86
Tablet	3	4.29
Desktop	2	2.86
Total	70	100.00

Table 1.e shows the frequency and percentage distribution of the respondents' profile relative to gadgets used at home. The table shows that the majority of the respondents with a frequency of 56 or 80 percent are using a cell phone for their online classes. The same result was generated by the study conducted by Asio, J. et.al. wherein they have found out that the majority of the students have smart phones, however, tablets, laptops, and personal computers garnered negative responses and only a portion of the students have them. The same result was generated by Mohamed Mahdy (2020) in his study wherein he found out that the most used device was the smart phone followed by laptop and tablet, while the least used device was the personal computer.

2. Academic Performance of the Respondents during the 1st Semester of the SY 2020-2021

Table 2: Frequency and Percentage of Academic Performance of the Respondents during the 1st Semester of the SY 2020-2021

Grading Scale	Frequency	Percentage
90 and above	7	10.00
85-90	40	57.14
81-84	20	28.57
75-80	3	4.29
74 and below	0	0.00
Total	70	100.00

Mean Grade=85.59

Table 2 shows the frequency and percentage distribution of the respondents' profiles relative to the academic performance of the respondents during the first semester of SY 2020-2021. As seen in the above table, 40 or 57.14 percent of the respondents obtained a grade of 85-90, while 3 or 4.29 percent got a grade of 75-80. The mean grade is 85.59. This implies that despite the fact that some studies conclude that the pandemic has negatively affected students, still, the respondents were able to perform above average. The result could be brought about by the fact that students have more time to perform other activities and hobbies that are less likely when they have to go to school, so these benefits could influence the improvement of their academic performance.

3. Effects of Online Learning in the Academic Performance of the 4th Year Criminology Students

Table 3a: Mean and Descriptive Scale Distribution on the Effects of Online Learning in the Academic Performance of the 4th Year Criminology Students Relative to Access

Items	Item Mean	Descriptive Scale
1. Generally, I am more engaged in my online courses	2.28	Sometimes
2. I have more opportunities to reflect on what I have learned in online courses	2.30	Sometimes
3. Online learning helps me understand course material	2.29	Sometimes
4. There are more opportunities to collaborate with other students in an online course	2.25	Sometimes
5. My online experience has increased my opportunity to access and use information	2.24	Sometimes
Category Mean	2.27	Sometimes

Table 3.a showsthe mean and descriptive scale distribution of the effects of online learning on the academic performance of the 4^{4th-} year criminology students relative to access. As reflected in the above table, rated highest is item number 2 "I have more opportunities to reflect on what I have learned in online courses" with a mean of 2.30 or a descriptive scale of "Sometimes." The result implies that respondents have more time and can continuously

access lectures and course materials and have more time to reflect on the materials before moving to the next. The result coincides with the study of Jung (2001) wherein according to his study, the evolution in education technology has contributed to improvingthe learning process through e-Learning environments, where learners can have better control over their learning pace and the sequence of their learning experiences. Meanwhileitem number 5 "My online experience has increased my opportunity to access and use information" got the lowest mean of 2.24 or a descriptive scale of "Sometimes". The result implies that although it has the lowest mean, the respondents still recognize the importance of learning using the online platforms and would also tend to motivate them to learn more with the use of the online platforms available to them, just like what Rennie and Morrison (2013) stated in their study that technology can remarkably influence learners' process of constructing knowledge and can assist in motivating them to go deeper into any sources of information they might be presented with. Generally, the result generated a category mean of 2.27 or with a descriptive scale of "Sometimes" which implies that although the respondents were not adequately prepared to go online learning at home and knowing that the Philippines has the slowest internet connectivity in Asia (Akamai 2017) they are aware that they can access their class in a place of their choice and gave an opportunity for them to attend lectures anywhere and at the same time they have an access to resources and materials that may be physically located anywhere in the world.

Table 3b: Mean and Descriptive Scale Distribution on the Effects of Online Learning in the Academic Performance of the 4th Year Criminology Students Relative to Efficiency

Items	Item Mean	Descriptive Scale
1. I am more likely to ask questions in an online course	2.34	sometimes
2. Generally, I understand course requirements better in an online course	2.31	Sometimes
3. Because of online courses, I am more likely to get a degree	2.40	sometimes
4. I can manage my own learning better in online courses	2.20	Sometimes
5. Take more online courses	2.27	Sometimes

Category Mean	2.30	Sometimes

Table 3.b shows the mean and descriptive scale distribution of the effects of online learning on the academic performance of the 4th-year criminology students relative to efficiency. As reflected in the above table, the statement "Because of online courses, I am more likely to get a degree got the highest mean of 2.40 or a descriptive scale of "Sometimes". The result generated coincides with the study of Seaman, Allen, & Seaman (2018) that online education has increased access to valuable postsecondary credentials for millions of people. The statement "I can manage my own learning better in online courses" has the least mean of 2.20 or a descriptive scale of "Sometimes". The result implies that although the respondents can only manage their own learning in online courses sometimes they are aware that the online format was favored due to its flexibility and convenience. As Simonson, Smaldino, Albright, and Zvacek (2009) stated one of the most commonly recognized benefits is the flexibility gained through the online format and that flexibility can help you to set your own study pace. With a category mean of 2.30, online learning sometimes affects the academic performance of the 4th-year criminology students in terms of efficiency.

Table 3c: Mean and Descriptive Scale Distribution on the Effects of Online Learning in the Academic Performance of the Criminology Students Relative to Social Interaction

Items	Item Mean	Descriptive Scale
1. I am motivated to succeed	2.61	Sometimes
2. I have strong time management skills	2.30	Sometimes
3. I am a multitasker	2.35	Sometimes
4. Assessment of my academic progress is more accurate in online courses	2.19	Sometimes
5. I can more easily monitor my academic progress in online courses	2.20	Sometimes
6.Response time from teachers and assistants is quicker in online courses	2.25	Sometimes
Category Mean	2.32	Sometimes

Table 3.c shows the mean and descriptive scale distribution on the effects of online learning on the academic performance of the 4th-year criminology students relative to social interaction. As reflected in the above table, the statement "I am motivated to succeed" got the highest mean of 2.61 or a descriptive scale of "Often". One reason why the respondents are often motivated to succeed is that because in online learning, learners are encouraged to revisit and revise their learning activities more than once and they persist in their effort to learn, they develop their learning skills effectively which is also associated with their engagement and success in the course Greller et al., 2017; Kennedy et al., (2015). Kim & W. Frick as cited in Harandi (2015) also stated that e-learning draw learners' motivation and learners will be more engaged in learning thus leading to success and achieving the learning objectives. On the other hand, the statement "Assessment of my academic progress is more accurate in online courses" got the lowest mean of 2.19 or a descriptive scale of "Sometimes". One reason why it got the lowest mean is that although it is possible as an instructor to elicit online quizzes, papers, and projects from students it is important to collect several pieces of information about the performance being assessed to increase reliability (Airasian& Russell, 2007). We know for a fact that in an online class, obtaining reliable assessment measures becomes more difficult than in a traditional face-to-face class. With a category mean of 2.32, online learning sometimes affects the academic performance of the 4th-year criminology students in terms of social interaction.

Table 3d: Mean and Descriptive Scale Distribution on the Effects of Online Learning on the Academic Performance of the Criminology Students Relative to Cost

Items	Item Mean	Descriptive Scale
1. The internet connection is very expensive and difficult to maintain	2.55	sometimes
2. My parents can afford to subscribe for internet connectivity	2.30	Sometimes
3. I have enough budget for mobile data	2.25	sometimes
4. The data is expensive enough	2.42	sometimes
5. The payment for the internet connection is worth it because I learn the lesson through online.	2.20	Sometimes

Category Mean	2.34	sometimes

Table 3.d shows the mean and descriptive scale distribution on the effects of online learning in the academic performance of the 4th-year criminology students relative to cost. As shown in the above table, the statement "The internet connection is very expensive and difficult to maintain" got the highest mean of 2.55 a descriptive scale of "Often". The result generated coincides with the article written by Ramon Royandoyan that despite the improvements in internet costs, the Philippines remains on the lower end of the internet affordability sub-index, ranking 72nd globally and that internet in the Philippines remains pricey for Filipinos. The statement "The payment for the internet connection is worth it because I learn the lesson online" has the lowest mean of 2.20 or "Sometimes". This implies that the respondents are sometimes willing to pay for the internet connection since they have seen that they can learn a lot while using the internet. The category mean is 2.34 or "Sometimes". This implies that respondents still have the thought that online learning is sometimes cheaper compared to face-to-face learning and that online education tends to be more affordable and cost-efficient.

Table 4: Summary Table on the Effects of Online Learning in the Academic Performance of the Criminology Students

Items	**Category Mean**	**Descriptive Scale**
Access	2.27	Sometimes
Efficiency	2.30	Sometimes
Social Interaction	2.32	Sometimes
Cost	2.34	Always
Over-all Mean	2.31	Sometimes

Table 4 shows the test of relationship between the profile variables and academic performance of the 4th-year criminology students. As reflected in the above table, there is a significant relationship between the profile variables of the respondents relative to Age, Civil Status, Occupation of Father, Occupation of Mother, Highest Educational Attainment of Mother, and gadgets used at home, hence the rejection of the null hypothesis at 0.05 level of significance. This implies that the stated profile variables of the respondents influence

theacademic performance of the 4^{4th--}year students. On the other hand, gender and highest educational attainment of the father have a P-value greater than the .05 level of significance hence the null hypothesis is accepted.

The study of Momanyi, Too and Simuyu (2015) coincides with the result generated pertaining to age. Based on their study they have found out that age had a significant effect on the student's academic performance. To an article written by the United States Department of Education, 2014, being married may have implications for individuals' academic performance which backs up the result generated in the study. In terms of parents' occupation, Omalde, Kassim, &Modupe, 2014; Odoh, Ugwuanyi, Odigbo&Chukwuani, 2017; Akbar, Shah & Anwar, 2014; Memon, Joubish&Khurram, 2010 states that parents' occupation and academic performance has a significant relationship and affects students' performance in their academics, thus backs up the generated result. In terms of the gadget used at home, the result was backed up by the studies conducted by Norries, Hossain, and Soloway (2011), Kumar (2011), Mtega, Bernard, Msungu, Woodcock et al. (2012), and Sanare (2012) wherein according to the result of their study, students' achievement increase significantly when students use mobile learning devices, including smartphones, during learning time. This is because their time-on-task completion will increase as they have the device at hand and smartphones had allowed them to improve productivity and eventually their learning performance. In terms of gender, the result is backed up by the study conducted by Egbo et. al wherein they have found out that males and females do not differ significantly in attitudes towarde-learning acceptance.

Table 5: Correlation Between the Profile of the Respondents and the Effects of Online Learning

Profile Variables/Effects of Online Learning		**Access**	**Efficiency**	**Social Interaction**	**Cost**
Age	Pearson Correlation	-.136	-.032	-.102	-.109
	Sig. (2-tailed)	.396	.452	.321	.259
	N	70	70	70	70
Gender	Pearson Correlation	-.212	-.300	-.100	-.266
	Sig. (2-tailed)	.184	.159	.258	.369

	N	70	70	70	70
Civil Status	Pearson Correlation	-.144	-.118	-.204	-.304
	Sig. (2-tailed)	.369	.456	.741	.357
	N	70	70	70	70
Highest Educational Attainment of Father	Pearson Correlation	-.040	-.054	-.111	-.090
	Sig. (2-tailed)	.806	.753	.841	.127
	N	70	70	70	70
Highest Educational Attainment of Mother	Pearson Correlation	.162	.133	.172	.135
	Sig. (2-tailed)	.311	.365	.099	.222
	N	70	70	70	70
Occupation of Father	Pearson Correlation	.303	.301	.125	.210
	Sig. (2-tailed)	.075	.093	.102	.127
	N	70	70	70	70
Occupation of Mother	Pearson Correlation	.277	.369	.147	.188
	Sig. (2-tailed)	.079	.125	.148	.136
	N	70	70	70	70

Table 5 shows the correlation between the profile of the respondents and the effects of online learning. Based on the table above, we can see that there is no significant relationship between the profile variables and the effects of online learning in terms of access hence the acceptance of the null hypothesis at a 0.05 level of significance. We can therefore say that regardless of age, gender, civil status, occupation, and highest educational attainment of parents, the use of the Internet for learning is seen as a means to improve accessibility, efficiency, and quality of learning by facilitating access to resources and service as well as remote exchanges and collaboration (Kamba 2009) and that online education increases access and interactivity with geographically distant experts and resources that are feasibly inaccessible through traditional face-to-face learning environments. In terms of efficiency, as seen in the table, there is no significant relationship between the profile variables and the effects of online learning in terms of efficiency therefore the null hypothesis at a 0.05 level of significance should be accepted. So regardless of whatever status you have, efficiency would always take into account the

relationship between the inputs put into the system versus the outputs gained from it (Muir 2005; Rossiter and Jones 2015). The hypothesis should also be accepted in relation to the relationship between the profile variables and the effects of online learning in terms of social interaction. It should be noted that social interaction promotes learning engagement which has been identified as positively affecting the achievement of learning outcomes regardless of age, gender, civil status, occupation, and highest educational attainment of parents. Lastly, as seen on the table, there is also no significant relationship between the profile variables and the effects of online learning interms of cost therefore the null hypothesis should also be accepted.

CONCLUSIONS

It may be deduced from the study's findings that online learning is quite successful. In many online courses, students are more engaged. Furthermore, the data revealed that in an online course, there are more opportunities to collaborate with other students. In an online course, students can readily comprehend course requirements. Furthermore, in online classes, teachers and helpers respond more quickly. However, the data revealed that students are having problems obtaining an internet connection due to the high cost.

RECOMMENDATIONS

The following recommendations are made based on the study's results and conclusions.

1. Maintain and improve the effectiveness of online learning.
2. Parents and instructors should always monitor their children's intellectual progress.
3. The utilization of the online platform as a modern route for the ever-changing transnational communications network should be acknowledged by educational institutions and their staff.
4. Conduct a further study to include other dimensions not covered in current one.

BIBLIOGRAPHY

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. http://www.doi.org/10.33902/JPSP. 2020261309

Airasian, P.W., & Russell, M.K. (2007). *Classroom assessment: Concepts and application* (6th ed.). New York, NY: McGraw-Hill.

Aguilera-Hermida, P.A. College Students' Use and Acceptance of Emergency Online Learning Due to COVID-19. *Int. J. Educ. Res. Open* **2020**, *1*, 100011.

Andrews, D., Nonnecke, B., &Preece, J. (2003). Electronic survey methodology: A case study in reaching hard to involve Internet Users. *International Journal of Human- Computer Interaction, 16*(2), 185-210. https://doi.org/ 10.1207/s15327590ijhc1602_04

Asio, J., Gadia, E., Abarintos, E., Paguio, D., Balce, M. (2021). Internet Connection and Learning Device Availability of College Students: Basis for Institutionalizing Flexible Learning in the New Normal. Studies n Humanities and Education.

Aucejo, E.M.; French, J.; Ugalde Araya, M.P.; Zafar, B. The Impact of COVID-19 on Student Experiences and Expectations: Evidence from a Survey. *J. Public Econ.* **2020**, *191*, 104271

Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking University. Human Behavior and Emerging Technologies. https://doi.org/10.1002/hbe2.191

Beluce, A. C., Oliveira, K. L. (2015). Students' motivation for learning in virtual learning environments. *Paidéia (RibeirãoPreto)*, 25(60), 105-113. doi: 10.1590/1982 43272560201513

Carini R, Kuh G, and Klein S 2006 Student engagement and student learning: Testing the linkages *Research in Higher Education* **1** pp. 1–32

CHED. (2020). CHED COVID-19 ADVISORY NO. 3. Retrieved from https://ched.gov.ph/wp-content/uploads/CHED-COVID-2019- Advisory-No.-3.pdf

Chen, S. Y., &Tzeng, J. Y. (2010). College female and male heavy Internet users' profiles of practices and their academic grades and psychosocial adjustment. Cyberpsychology, Behavior, and Social Networking, 13, 257-262.

Concordia Online Education. (2016). 5 benefits of using cellphones in schools: Smartphone as learning tools. Retrieved from http://education.cu-portland.edu/blog/tech-ed/should-students-use-their- smartphones-as-learning-tools/

Fortune M, Spielman M and Pangelinan D 2011 Students' perceptions of online or face-to-face learning *and* social media in hospitality, recreation and tourism *Journal of Online Learning and Teaching* **7**(1) pp 1-16

Harandi, S.R. (2015). Effect on eLearning on student's motivation. *Procedia – Social and Behavioural Sciences* 181, 423 – 430.

Hasan, N.; Bao, Y. Impact of "e-Learning Crack-up" Perception on Psychological Distress among College Students during COVID-19 Pandemic: A Mediating Role of "Fear of Academic Year Loss". *Child. Youth Serv. Rev.* **2020**, *118*, 105355.

Hurst B, Wallace R and Nixon S 2013 The impact of social interaction on student learning *Reading Horizons* **52**(4) pp. 375-398

Karalis, T. (2020). Planning and Evaluation during Educational Disruption: Lessons Learned from COVID 19 Pandemic for Treatment and Emergencies in Education. European Journal of Education Studies, 7(4). https://doi.org/10.5281/zenodo.3789022

Koohang A and Durante A 2003 Learners' perceptions toward the web-based distance learning activities/assignments portion of an undergraduate hybrid instructional model *Journal of Informational Technology Education*

Mmanyi, Too and Simuyu (2015). Effect of Students' Age on Academic Motivation and Academic Performance among High School Students in Kenya. Asian Journal of Education and e-Learning (ISSN: 2321 – 2454)

Mohamed A. A. Mahdy (2020). The Impact of COVID-19 Pandemic on the Academic Performance of Veterinary Medical Students. Front Vet. Sci.

Rajabalee, B., Santally, M., Rennie, F. (2019). **A study of the relationship between students' engagement and their academic performances in an eLearning environment. SAGE Journals.** https://doi.org/10.1177/2042753019882567

Saavedra, J. (2020). Educational challenges and opportunities of the Coronavirus (COVID-19) pandemic. Retrieved from https://blogs.worldbank.org/education/educational-challenges-and- opportunities-covid-19-pandemic

Santos, A. P. (2020, October 6). In the Philippines, distance learning reveals the digital divide. Retrieved from https://eu.boell.org/en/2020/10/06/philippines-distance-learning-reveals-digital-divide

Sarvestani, M. S., Mohammadi, M., Afshin, J. &Raeisy, J. (2019). Students' experiences of e-Learning challenges: A phenomenological study. *Interdisciplinary Journal of Virtual Learning in Medical Sciences, 10*(3), 1-10. https://doi.org/10.30476/IJVLMS.2019.45841

Toquero, C. M. (2020). Challenges and Opportunities for Higher Education amid the COVID-19 Pandemic: The Philippine Context. Pedagogical Research, 5(4). https://doi.org/10.29333/pr/7947

UNESCO. (2020). COVID-19 Educational Disruption and Response. Retrieved from https://en.unesco.org/covid19/educationresponse

A. **ELECTRONIC SOURCES**

ObaidUllah; Wasal Khan &Aamir Khan; Student's Attitude towards Online Learning at Tertiary Level

William E. Capeland,Ph.D 2020; Impact of COVID-19 Pandemic on College Students Mental Health

John Hopkins University.(2021). Global Map

Student's Online Learning challenges during the pandemic and how they cope with them: The case of the Philippines; Jessie S. Barrot, Ian L. Veabares& Leo S. del Rosario

World Health Organization(2020).coronavirus

https://doi.org/10.1016/j.jaac.2020.08.466

https://coronavirus.jhu.edu/

https://www.who.int/health.topics/coronavirus#tab=tab_1

https://doi.org/10.1080/09588221.2021.1883673.

https://files.eric.ed.gov/fulltext/ED603297.pdf

https://link.springer.com/article/10.1007/s10639-021-10589-x

(https://doi.org/10.1007/s10639-021-10589-x)

(https://creativecommons.org/licenses/by/4.0/)

https://journals.sagepub.com/doi/pdf/10.1177/2347631120983481

https://www.edweek.org/technology/opinion-how-effect-is-online-learning-what-the-research-does-and-doesn't-tell-us/2020/03

https://link.springer.com/article/10. 1007/s10639-020-10219-y

https://link.springer.com/article/10. 1007/s10639-021-10589-x