

Exploring Compatibility of Virtual Learning Modalities in Surigao del Sur State University, Cagwait Campus during the COVID 19 Pandemic

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Abstract

The onslaught of the COVID-19 pandemic has forced higher education institutions to rethink pedagogical approaches in continuing their services in the midst of the new normal. With the boom of flexible learning as a prevalent pedagogical approach, the Surigao del Sur State University, Cagwait Campus unites with CHED's endeavor to explore innovative alternatives to resume its quality education amidst the pandemic. With the options to employ differing modalities, the need to actively seek evidences may provide institutions to employ compatible approaches to address the urgency of educational resumption. Moreover, the study seeks to: 1) describe learners' technological capacity and accessibility; 2) describe learners' willingness and experiences towards flexible learning; and, 3) describe compatible learning modality in the COVID-19 context. Using Google Forms as survey questionnaires, online rapid assessment was conducted along with the enrollment process and data was analyzed using descriptive statistics. Results suggest that respondents are willing to pursue virtual learning. Currently enrolled learners have modest technological accessibility and capacity as a means for virtual or distant learning and, responses are described as neutral as to all types of virtual modality. The necessity to determine learning approaches benefits both learners and the learning institution itself. Despite the academic challenges, learners continue to pursue education even with a limited to modest technological assets.

Keywords: Education, virtual learning, modalities, COVID-19 Pandemic, descriptive, Surigao del Sur, Philippines

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I. Introduction

The effect caused by the pandemic has been widespread as months progresses. Rural areas suffered enormously as socio-economic disruptions¹ continue to affect all sectors in the community. In the Philippines, the province of Surigao del Sur (SDS) experienced the same disruption whereas of this writing, over three thousand cases were reported in the region and an increasing trend of cases² were observed in the province. As the need towards the resumption of education services is necessary without compromising the safety and health of the learners, the Commission of Higher Education (CHED) issued a memorandum order³ pertaining to the implementing guidelines of flexible learning to all regions. This became the roadmap for all higher education universities and colleges in the Philippines to resume its education through an innovative alternative. The Organization for Economic Cooperation and Development (OECD)⁴ and the United Nations Educational, Scientific and Cultural Organization (UNESCO)⁵ resound similar urgency, to utilize as much resources to enable the continuity of education to all learners. Recently, flexible learning approach exploded as a prevalent pedagogy in the education arena as it assures safety among learners along with an ease of time, place, pace, assessment, and learning experience even in a virtual environment⁶. This, however, proves challenging to both

¹National Economic and Development Authority. (2020). Addressing the Social and Economic Impact of the COVID-19 Pandemic.

² Accessed from: <https://covid19stats.ph/stats/by-location/surigao-del-sur>. Accessed date: 11/11/2020

³ CHED Memorandum Order No.4, Series of 2020. Subject: Guidelines of the Implementation of Flexible Learning

⁴Reimers, F. M., & Schleicher, A. (2020). A Framework to Guide an Education Response to the COVID-19 Pandemic of 2020. Organization for Economic Cooperation and Development.

⁵Huang, R., Liu, D., Tlili, A., Yang, J., Wang, H., & et.al. (2020). Handbook on Facilitating Learning During Educational Disruption: The Chinese Experience in Maintaining Undisrupted Learning in COVID-19 Outbreak. Beijing: Smart Learning Institute of Beijing Normal University.

⁶Largoza, G. L. (2003). Open/Distance Learning and the Changing Labour Market: Toward a Framework for Rethinking Educational Governance Structures. Makati: Philippine Institute for Development Studies.

learning institutions and learners. The abrupt transition towards the flexible learning approach was unprecedented and the capacity to deliver education through this approach requires resources, experience, and readiness⁷. Previous studies indicated challenges that is often met in utilizing flexible learning which includes technological capacity, learner accessibility, teacher-learner interactivity^{8,9,10}.

Framework of the Study

Flexible learning has re-captured the necessity of educational institutions today. Despite its prevalence, the roots of flexible learning have long been established even prior to COVID-19 pandemic¹¹. A wide array of nomenclatures has been synonymous in defining flexible learning which includes terms like: open/distance learning (ODL), virtual learning, web-based (online) learning, and e-learning^{12,13}. In this study, virtual learning is reconceptualized as a learner-centered educational strategy which provides both teachers and learners the ease of time, pace, place, and audience. Moreover, virtual learning is categorized into three modalities namely: 1) guided self-paced learning which is emphatic on both online and self-learning modules; 2) unguided self-paced learning which heavily relies on self-learning modules and course packs with lesser teacher-learner interactivity; and, 3) full online learning which establishes a virtual classroom with elements involving attendance checking, real-time virtual assessments, and live virtual interactivity.

Objectives of the Study

As Surigao del Sur State University, Cagwait Campus strives to uphold its mission towards providing quality service education to all learners, this study was conducted in order: 1) to describe learners' technological capacity and accessibility; 2) describe learners' willingness and experiences towards virtual learning; and, 3) describe compatible learning modality in the COVID-19 context.

II. Methodology

The study was conducted in line with the online enrollment period that spanned from June 2020 to August 2020. Primary data was collected from enrolling students of different levels and programs through online survey using Google Forms (Google LLC, Mountain View, California). Prior to access of the survey, Statement of Consent was posted adhering to Data Privacy Act of 2012. Respondents participation in the survey was voluntary. The survey instrument was derived from SDSSU Bislig Campus's survey questionnaire. 23 items were adapted from the survey questionnaire that collected demographics, virtual learning experience and willingness; virtual learning modality compatibility, and technological capacity. 5-point Likert scale was used in describing mean scores that ranges from willingness, agreement, frequency, and electronic device speed and convenience. As exploratory research places more emphasis on describing initial findings¹⁴ similar with this study, data was analyzed using descriptive statistics.

III. Results and Discussion

A total of 123 responses were collected from the online survey. Enrollees according to their younger age group (Age: 18-24; n=96, 78%) comprise the greatest number of responses in the survey. 93% of them belong to a household with a combined income of below Php 9,999.00. More than half (n=72, 59%) of the respondents belong to a large household that comprises five to nine members. 57% (n=70) of respondents admitted to have prior experience to virtual learning and the likes.

Table 1: Summary on demographics

Category	Subgroup	Frequency	Percentage
Age	18-20	44	36%
	21-24	52	42%
	25-28	17	14%

⁷Oluyinka, S., &Endozo, A. N. (2019). Barriers to e-Learning in Developing Countries: A Comparative Study. *Journal of Theoretical and Applied Information Technology*, 2606-2618.

⁸Gilbert, B. (2015). *Online Learning: Revealing the Benefits and Challenges*. Education Masters.

⁹Bozkurt, A., & Sharma, R. C. (2020). Emergency remote teaching in a time of global crisis due to CoronaVirus pandemic. *Asian Journal of Distance Education*, 15.

¹⁰Alipio, M. (2020). Education during COVID-19 era: Are learners in a less-economically developed country ready for e-learning? Hamburg: Leibniz Information Centre.

¹¹Largoza, G. L. (2003). Open/Distance Learning and the Changing Labour Market: Toward a Framework for Rethinking Educational Governance Structures. Makati: Philippine Institute for Development Studies.

¹²Dhawan, S. (2020). Online Learning: A Panacea in the Time of COVID-19 Crisis. *Journal of Educational Technology Systems*, 5-22.

¹³Singh, V., & Thurman, A. (2019). How many ways can we define online learning? A systematic literature review of definitions of online learning (1988-2018). *American Journal of Distance Learning*, 289-306.

¹⁴Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. Los Angeles: SAGE Publications, Inc.

	29-34	10	8%
Civil Status	Single	113	92%
	Married	7	6%
	Others	3	2%
Household Income	below 9,999	115	93%
	10,000 - 19,999	8	7%
	20,000 - 29,999	0	-
	30,000 - 39,999	0	-
Number of Household Members	1-4	44	36%
	5-9	72	59%
	10-13	6	5%
	14-17	1	1%
Virtual Learning Experience	Yes	70	57%
	No	37	30%
	Maybe	16	13%

Mobile data (n=112, 78%) was identified as the most common mode of internet connectivity among the respondents. Scarce responses on Home Wifi Subscription (n=15, 10%) was observed to be subscribed by a small number of respondents. 1% (n=1) indicated that a respondent do not have an access to the internet. Home Wifi Subscription was described as having a neutral connectivity speed (Mean=2.82) while the rest were describe as slow or very slow.

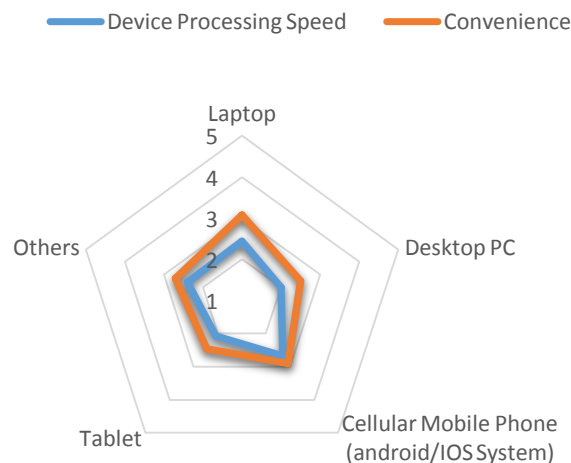
Table 2: Summary on mode of connectivity and internet speed

Mode of Internet Connection	Frequency	Percentage	Internet Speed (Mean)	Internet Speed (Description)
Mobile Data (Prepaid or Post-Paid Subscription)	112	78%	2.51	Slow
Home Wifi Subscription				
Internet Cafe/Computer Shops	15	10%	2.82	Neutral
Neighbors/Relatives/Friends	0	0%	2.17	Slow
Peso Wifi	9	6%	1.93	Slow
No Available Means	6	4%	1.80	Very Slow
	1	1%	-	-

On device ownership, 99 (81%) had a cellular mobile phone, 14 (11%) had a laptop, 1(1%) had a device being borrowed, and 8 (7%) had none. Cellular mobile phone was described as having the modest (“neutral”) processing speed (Mean=2.69) and convenience (Mean=2.92) among electronic devices.

Figure 2. Device Processing Speed and Convenience

Facebook (n=32) and Facebook Messenger (n=40) was described as the most “frequently” used social media



platform based from the responses. The rest of the social media platforms scored “Never” according to the responses.

Figure 2. Frequency on the Use of Social Media Platforms

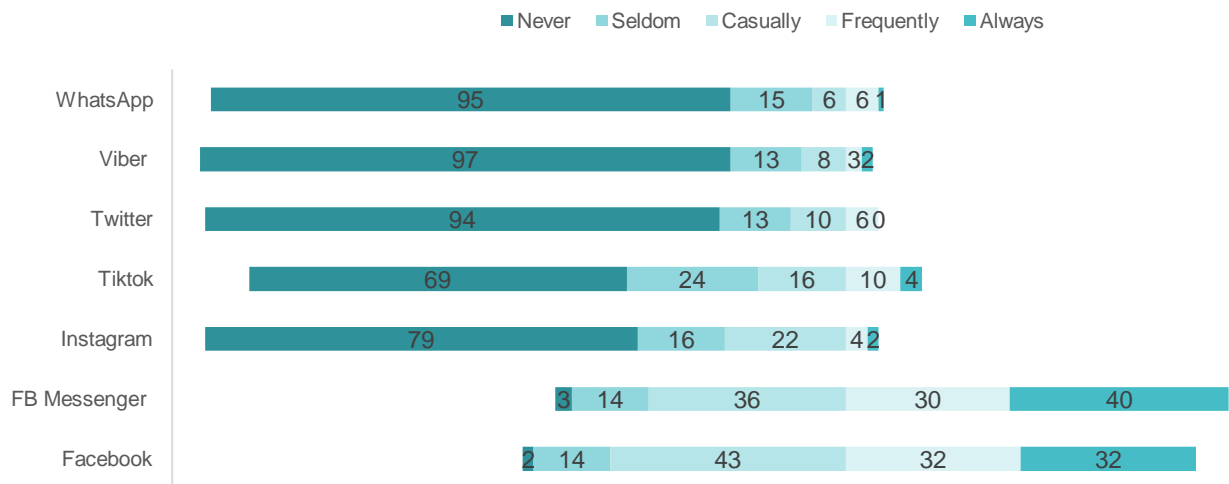
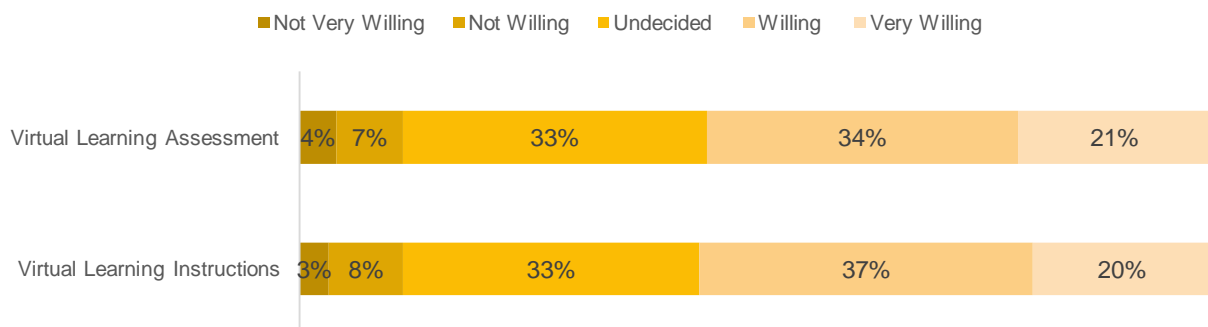


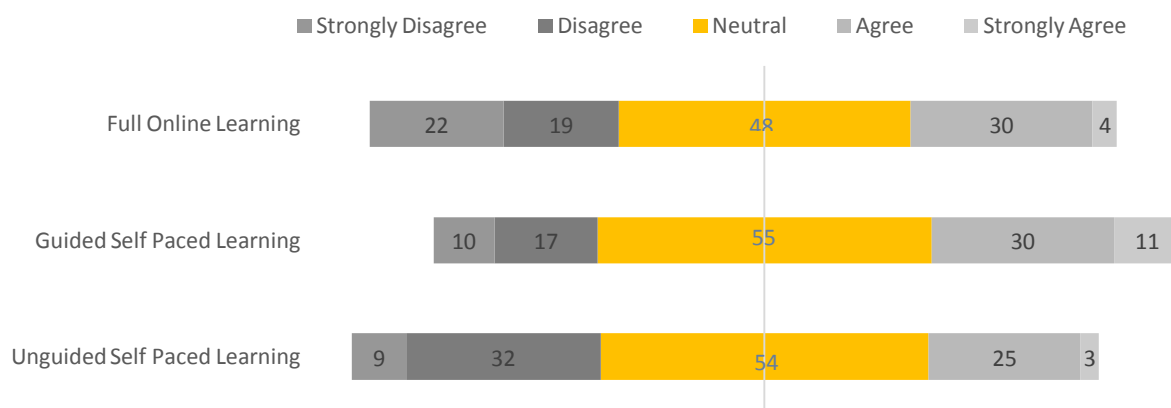
Figure 3 describes the willingness on virtual learning instructions and assessment of the respondents. On virtual learning instructions, 37% are willing in pursuing virtual learning while 33% are undecided. On virtual learning assessment, a miniscule difference of 1% demarcates the undecided (33%) and the willing (34%) in undergoing virtual learning assessment. In a broader perspective, 55% are willing to undergo virtual learning assessment, and 57% are willing to be instructed in a virtual learning setup.

Figure 3. Summary of responses on willingness toward virtual learning and assesment



In Figure 4, all virtual learning modalities responses were described as “neutral”. Guided self-paced learning scored the highest among the “neutral” responses while full online learning scored the lowest among “neutral” responses.

Figure 4. Summary of responses on the virtual learning modalities



Demographics and technological capacity and accessibility

Higher education students in the rural areas are considered to have higher age gaps than higher education students in the urban populations. Students belonging in large families having low income are most likely to have the least capacity to acquire advanced and more interactive electronic devices. Students are most likely to utilize cellular mobile phones (smartphones) in order to comply with the learning tasks. Added to this is the need for internet connection which requires extra consumption. Rural provinces are the least to have access to home wifi due to distance and accessibility notwithstanding financial resources to avail of such services. It is expected that students will take advantage of mobile data than the luxurious home wifi subscriptions. While mobile data has a limited use of internet connection, Facebook and Facebook Messenger were often used due to its economic and friendly platform.

Willingness to learn despite limited technological resources

The survey undoubtedly described the students as willing in continuing their education. Despite the lack of interactivity and technological resources in virtual learning, responses show that education continues to thrive even in Surigao del Sur. However, responses suggest that students may be unsure as to the modality they will be encountering. Even with most responses indicated as having experienced in virtual learning, their stance of neutrality manifests the doubts faced with virtual learning.

Determining the compatible virtual learning modality

The precedents, involving technological capacity, accessibility, and the willingness of learners to continue education, are elements that can be accounted for determining compatible modality. With the most ideal learning setup, learners may be able to learn and be assessed through the guided self-paced learning. Learners are unsure of the expectations of virtual learning, hence, guided self-paced learning provides them the room to explore and learn on how to cope up with education despite the pandemic. The WHO was very emphatic about flexible learning as a means to cope up, and not as an immediate call to resolve the educational disruptions.

IV. Conclusion

The urgency to continue education is undoubtedly one of the priorities of every governments. The continuity of education cannot be faced without challenges but the study proves strongly that even with scarce resources, students, even in rural locations manifest resiliency, passion, and dedication amidst the pandemic. Enrollment rates may have sharply reduced but the presence of continuing students attest that even barriers of flexible learning cannot hinder the passion to education. This study has also its shortcomings. As the initial findings of this study described the recent landscape of the higher education in Surigao del Sur, further study must be conducted to enable generalization of results and findings.

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