Available online at ijci.wcci-international.org

International Journal of Curriculum and Instruction 14(2) (2022) 1343–1358

IJCI
International Journal of Curriculum and Instruction

Flexible learning and its effectiveness in teaching college subjects amidst Covid 19 Pandemic

Ramil Arciosa [a] *

[a] *Sultan Kudarat State University, College of Teacher Education(CTE),; Tacurong City, Sultan Kudarat, Philippines*

Abstract

The aim of the study is to determine the effectiveness of Flexible Learning using the three (3) online teaching platforms; (i) Sultan Kudarat State University Electronic Learning Delivery System (SKSU ELEADS); (ii) Facebook Group; (iii) Google meet. In the study, descriptive and experimental method was adapted. In descriptive side, where one hundred thirty-eight (138) respondents, a Bachelor of Elementary Education (BEED 2-All Sections) of College Teacher Education(CTE) of Sultan Kudarat State University (SKSU), First Semester, Academic year 2020-2021. The respondents are randomly selected for online survey through Google forms for the Flexible learning in terms of three (3) qualities; Content, Technical and Instructional. In Finale, where the effectiveness of flexible learning is through pre and post-test scheme of almost one month, discussed the chapter 1 of the subject -EDDMATH 2 entitled 'Teaching strategies of Intermediate mathematics' as one major subject of the proponents. The data were analyzed via descriptive mean, comparison of mean and ANOVA as statistical analysis of this study. The results revealed that the difference weighted mean between the pre-test and post-test is 10.16, which signified a clear graphical presentation of positive skewed in all respondents, which signified the effectiveness of flexible learning. In terms of qualities of three (3) online learning modalities like FB Group, Google Meet and SKSU ELEADS, where Google Meet got a highest mean of 3.68, as indicated that respondents need an interactive discussion even though there is no Face to Face(F2F), due to COVID-19 pandemic era. Among the three (3) online learning platforms, Facebook Group(FG) got $F(7,6) = 9.617$, $p < 0.05$ and significantly liked among the respondents due to easy accessibility in rural areas.

Keywords: Flexible learning, Google meet, Facebook group, Sultan Kudarat State University(SKSU) Electronic Delivery System(ELEADS)

1. Introduction

The rate of change in the development of teaching and learning styles among educators during this COVID 19 pandemic, affects the effectiveness of the process in gaining knowledge from every learner's perspective (Korkmaz & Mirici, 2021). Every achievement requires a great effort from all parties in the education pedagogy, the most affected system in the whole academic endeavor. The pre-Covid 19 pandemic conditions in education are already reflected in

* Corresponding author Ramil Arciosa. ORCID ID.: https://orcid.org/0000-0003-2993-8185
E-mail address: ramilarciosa@sksu.edu.ph

Information, Communication and Technology (ICT) so that some reputable HEIs (Higher Education Institutions) in the Philippines already adopt this kind of electronic learning(e-learning) or online learning. According to Pawilen, G.T. (2021), this should be emphasized and he suggested its recommendation as a model in universities and colleges, for use in planning for an effective and efficient implementation of flexible learning. The Sultan Kudarat State University(SKSU) is using an official interactive online platform called SKSU ELEADS (Electronic Learning delivery system) which was launched this academic year 2021. Before the launching of SKSU ELEADS as the official online platform to be used by faculty of the College of Teacher Education (CTE) at SKSU Access Campus, the teachers were already using the common online platforms such as Google Meet, Zoom and Face Book Group as the main online platforms. The online classes are smoothly operating and are in normal condition despite many complains about their technical qualities. In their study, Camara et. al. (2021) found that unstable, weak, and poor internet connections as well as uncomfortable teaching and learning spaces at home appear to pose as the greatest barriers for online learning to both faculty and students. Furthermore, the study noted that Pangasinan State University (PSU) was quick to implement an online learning platform but found that the gadgets available for use by a number of respondents could not run the app, or, at least, run its full features, and, which led to another challenge found on the difficulty to download teaching and learning resources using the software. The Philippine Higher Education Institutions (HEIs) are adopting this trend of using online learning pursuant to the Commission on Higher Education(CHED,2020) CHED COVID-19 Advisory No. 6, the ECQ in Luzon, Philippines. The Commission granted considerable flexibility to HEIs as they were advised to deploy available flexible learning and other alternative forms of delivery instead of on-campus learning. Students who did not have internet access were given the option of meeting the class requirements after the ECQ was lifted.

Due to the Covid 19 pandemic, higher education worldwide is one of the important sectors that are really affected, particularly the no face-to-face instruction, because of the Covid 19 virus that very highly contagious disease that might hit both teachers and young adults. The study of Delgado, J. E. & Arellano, J. (2021), stipulated that offering flexible learning could be a great adjustment to graduate students taking up PhD courses in Samar State University(SSU), and does not affect or impede learning for their professional advancement and growth. Furthermore, despite flexible learning, taking advantage of online classes, not traveling to school, skills developed to apply in the teaching and learning process in the workplace are more necessary. Due to disruptions in internet connection disruption during student interaction, the graduate students described their experience of taking their online classes as embarrassing. The quality of online learning is hampered due to the schools lack of preparedness in terms of the ICT(Information Communication Technology) infrastructure and students are really the ones affected by this full shift to online education. Barrera,K.L.,Jaminal, B., & Arcilla, F. (2020), revealed in their study that the JHS, SHS, College, and Teachers of Saint Michael College of Caraga, are ready for flexible learning, for the majority of the respondents have smartphones, laptops and can connect to the internet through mobile data and Wi-Fi providers, where smartphones, laptops and an internet connections are the technical requirements for online education. The main agendum here is the effectiveness of the online learning from the student's side, where the internet connection is the major problem both among the learners and teachers. Moralista, R. & Oducado, R. M. (2020), emphasized that the faculty significantly differed whether they are in favor of online education

based on age, sex, college, educational attainment, years in teaching, academic rank, level taught and employment status. At the same time, Facultys of Higher Education Institutions must be provided with continued support and training as they adapt to the new normal in the higher education landscape and as they embrace the instructional challenges brought by the Coronavirus disease 19 pandemic. Joaquin, J. J. B., Biana, H. T., & Dacela, M. A. (2020), reiterated in their study that the Philippines should venture into a new mode of learning. Several factors need to be considered such as the following: [i]teacher capacity; [ii] situation and context of the learner, and [iv] efficiency of the learning environment. In their assessment, the study reiterated the more obvious issues of internet speed, cost of materials, and mode of delivery. Further, the best way to move forward is to take a step back and design a strategy that engages teachers, students, parents, school administrators, and technology-based companies. Lagat, K. T. (2020) stated in his study that faculty members, in general, considered flexible learning strategies to be slightly difficult to implement, as a significant relationship was also found between the faculty members' generational age and their perceived difficulty in the Instructional Approach and resources domain. The findings of this study suggest capacity building initiatives to address the identified difficult flexible learning strategies of the faculty members. Abisado et. al (2020) ,revealed in their study that when the students do not have any access to the Internet, different ways can be done to deliver through the barangay when the students live in the remote and far areas and there should be a asynchronous course delivery consisting of the design of outcomes-based teaching and learning plan, course materials, scheduled on-line and face-to-face meetings, technology, and center for technology education. Laguador (2021) revealed in his study that almost half of the students have a moderate level of challenges encountered in conducting flexible learning where they expressed difficult problems on the achievement of learning outcomes and attendance to a synchronous learning classes with low internet connectivity as well as loss of electricity as major concerns in rural areas. On the other hand, students from urban areas have the luxury of time to ask for technical assistance from people within the city where their internet problems can be easily fixed because of their proximity. Finally, he noted that the economic aspect of flexible learning is considered an issue among the students regardless of their location. Students from suburban areas felt that they were receiving less support from their family members. Students from rural areas have expressed significantly more difficult challenges in terms of limited communication with teachers, while there are moderate challenges with the delivery of instruction and achievement of learning outcomes regardless of location. The COVID 19 pandemic forced the Philippines Higher Education Institutions to use different online platform modalities. Mobo (2020) suggested that there is a new alternative flexible learning that will ease up the situation of the current pandemic in all education levels, including the integration of Virtual Reality of AR learning content as part of the educational authoring tools, a web-based platform for the development of augmented content, the distribution of which is accomplished through standardized Learning Management Systems (LMS) using SCORM packages library.

The main reason that the Sultan Kudarat State University Academic Office launched and initiated an an official online platform called SKSU ELEADS is to cater to all online teaching peripherals. The Internet infrastructure is the main problem as these flexible learning started way back 2019. The study of Gogotano et. al. (2021) also shows that most students possess just mobile phones and use mobile data as their primary internet access, ranging from moderate to poor connections. The majority are not fully equipped with adequate skills in digital media.

Finally, they revealed that among the challenges are students experiencing the unavailability of a network, economic instability, digital divide, shortage of digital devices, distractive learning environment, expensive internet data, health-related problems, lack of resources, lack of digital literacy skills, and loss of motivation .They also found out that even if flexible online learning is the best solution for the university to replace face-to-face classes, it is not the best applicable and suitable to all students living in rural areas or other places with unstable network, and, students who belong to financially unstable families. The study of Tarrayo et.al (2021) discussed how the learning content could be affected in online teaching, particularly flexible learning, However, the most crucial concerns include comprehension of learning content, student engagement, and internet connectivity, which were likewise claimed by the participants as disadvantages of flexible learning. In the international setting, the surge of the COVID 19 also affected higher education because the nature of the traditional school settings was changed into the online modality of learning. Kummitha et.al (2020) remarked that the digital divide and lack of institutional preparedness are found to be major problems that constrain the effective implementation of online teaching/learning, and their should be training programmes for faculty members to utilize web resources and facilitate online teaching. They pointed out that the instance and lack of preparation for full implementation of flexible learning affect the quality of education that learners should attain. Furthermore, they emphasized that the best indicator where online learning could be successful in its implementation during the Covid 19 pandemic were through their numeric achievements which denote the exact values of the increase or decrease in the degree of learning in the learner's side. Ali (2020) revealed that universities worldwide are moving increasingly towards online learning or E- Learning and in which resources, staff readiness, confidence, student accessibility, and motivation play important functions in Information Communication Technology(ICT) integrated learning. Furthermore, they propose online and remote learning as a necessity in times of lockdowns or social distancing due to COVID-19 pandemic. Agormedah et. al. (2020) concluded that students had a positive response to online learning, known of online learning, and some of the platforms like UCC, Moodle platform, Alison, and Google Classroom. They would also like to use other social media platforms. Further, they would use a smart phones and laptops for online learning. However, they had a negative response to online learning (not ready/prepared) because they lacked formal orientation and training, perceived lack of constant access to internet connectivity, and financial unpreparedness. Finally, the management of the university should provide resources to help students assess whether they are ready to take an online course and offer suggestions for preparation. Taylor-Guy & Chase (2020) revealed that the lecturer may deliver the same lecture or go a tutorial via video that they would deliver face-to-face and they may use online discussion boards or chat rooms to try and replicate small group work in tutorials. Finally, they also emphasized that the students may work through course materials on their own and have little connection with each other or their lecturer beyond real-time video or chat interactions. Further, their research shows that these sorts of practices – which can be more accurately described as "remote learning" rather than "online learning" - promote student disengagement and dropout.

As a researcher, the writer was motivated in pursuing this study to determine the effectiveness of the current trends in online education, particularly the methodology like flexible learning as the main mode of teaching and learning process. The following questions were the researcher want to find :

1. What are the respondents' perceptions on the content, technical, and instructional quality of the three (3) online learning modalities?
2. What is the pretest and posttest of the respondents?
3. Is there a significant difference in the achievement of the respondents under the three (3) online learning platforms?
4. Are there significant differences among the three(3) online platforms ?

The researcher wants to recognize the positive effects of flexible learning despite the limited online learning materials. The study of Gayeta (2020) stated that considering the global epidemic, the positive attitude of teachers in State Universities and Colleges(SUCs) and Private Universities and Colleges(PUCs) towards educational challenges and opportunities is very optimistic. Teachers have a strong sense of duty and are active in incorporating interactive learning in remote areas. The use of computer technology is very valuable. Furthermore, in his case study shows how the Higher Education of the Philippines reacted to the need to challenge the current situation of the coronavirus (COVID-19) pandemic and provides a high-quality and excellent education to students through the Higher Education Commission. The most affected in this flexible learning are the students/learners who really need education, but have problems with the hardware(materials, peripherals) and software(people) components of the flexible learning. The study of Lazaga and Madrigal (2021) emphasized that online learning makes students lazy, lack motivation to learn due to lack of internet connection, confusion, and adjustment to the online platform modality.

2. Method

The researcher gathered the data through an online survey using google forms on the perception of the respondents in terms of the quality of the three(3) online platforms, namely: content, technical and instructional perceptions among five(5) sections of respondents, namely :Bachelor in Elementary Education (BEED) section 2A, Bachelor in Elementary Education (BEED) section 2B, Bachelor in Elementary Education (BEED) section 2C, Bachelor in Elementary Education (BEED) section 2D and Bachelor in Elementary Education (BEED) section 2E. This two hundred twenty-two(222) respondents are all students of the researcher in their subject course EDDMATH 2 with its descriptive title ' Strategies in Teaching Elementary Mathematics' in the College of Teacher Education(CTE), Sultan Kudarat State University (SKSU)- Access campus, located at EJC Montilla, Tacurong City, Sultan Kudarat, 2nd semester 2020-2021. Further , the respondents went through a pretest posttest in their Chapter 1/unit competency 1(UC1) for 25 items of multiple choice. The said subject was all about set theory using the SKSU Eleads assessment tool. Lastly , the researchers used the IBM SPSS software in the analysis of the data.

3. Results

What are the respondents' perceptions in terms of content, technical, and instructional qualities of the three(3) online learning modalities ?

Table 3.1 The Respondents' perception in terms of the Three(3) Qualities of SKSU Eleads Online Learning Platform.

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
SKSULeads_2A	14	.78	3.03	3.81	3.40	.054	0.20	.041
SKSUELeads_2B	14	.82	2.96	3.78	3.33	.062	0.23	.054
SKSULeads_2C	14	1.58	2.21	3.79	2.70	.100	0.38	.140
SKSULeads_2D	14	1.48	2.63	4.11	3.40	.088	0.33	.109
SKSULeads_2E	14	1.55	2.17	3.72	2.94	.093	0.35	.120
Mean	14	1.24	2.6	3.84	3.15	0.0794	0.30	0.093

Legend: 0 -2.3 – Fair ; 2.4 – 3.4 – Good ; 3.5- 4.4 – Very Good ; 4.5 – 5.0 - Excellent

Table 3.1 shows the perception of one hundred thirty-eight (138) respondents on the content, technical, and instructional qualities of SKSU Eleads Online Learning modalities. Results show a range of 1.24, and variance of 0.093, a weighted mean of 3.15, and SD = 0.30, describing SKSU Eleads online learning modality as of *"good quality"*.

Table 3.2 The Respondents' Perception in terms of the Three(3) Qualities of Google meet Online Learning Platform.

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
GoogleMet_2A	14	.50	3.53	4.03	3.85	.040	0.15	.021
GoogleMet_2B	14	.30	3.67	3.97	3.84	.022	0.08	.007
GoogleMet_2C	14	.73	3.00	3.73	3.26	.054	0.20	.040
GoogleMet_2D	14	.38	3.75	4.13	3.93	.031	0.12	.013
GoogleMeet_2E	14	.50	3.22	3.72	3.51	.042	0.16	.025
Mean	14	0.48	3.43	3.92	3.68	0.04	0.142	0.021

Legend: 0 -2.3 – Fair ; 2.4 – 3.4 – Good ; 3.5- 4.4 – Very Good ; 4.5 – 5.0 - Excellent

Table 3.2 Shows Google Meet as an online learning modality as perceived by respondents. The weighted mean is 3.68 and SD is 0.142, describing the platform as *" of very good quality"*.

Table 3.3 The Respondents Perception in terms of the Three(3) Qualities of Facebook group online learning platform.

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
FacebookGrp_2A	14	1.15	2.91	4.06	3.75	.070	.26	.069
FacebookGrp_2B	14	.85	3.27	4.12	3.67	.052	.19	.037
FacebookGrp_2C	14	1.57	2.67	4.24	3.19	.100	.37	.137
FacebookGrp_2D	14	.48	3.48	3.96	3.66	.036	.14	.019
FacebookGrp_2E	14	.63	2.95	3.58	3.24	.045	.17	.029
Mean	14	0.94	3.06	3.99	3.50	0.061	0.23	0.06

Legend: 0 -2.3 – Fair ; 2.4 – 3.4 – Good ; 3.5- 4.4 – Very Good ; 4.5 – 5.0 - Excellent

As **Table 3.3** reveals, the respondents' perception of the fourteen (14) key elements that describe the content, instructional, and technical aspects of the Facebook group online learning modality have a weighted mean of 3.50 as "*of very good quality*" and SD = 0.23 to receive the 2nd rank among the two online *learning* platforms.

What is the pre-test/post-test of the following respondents from sections 2A?2B?2C?2D? and 2E?

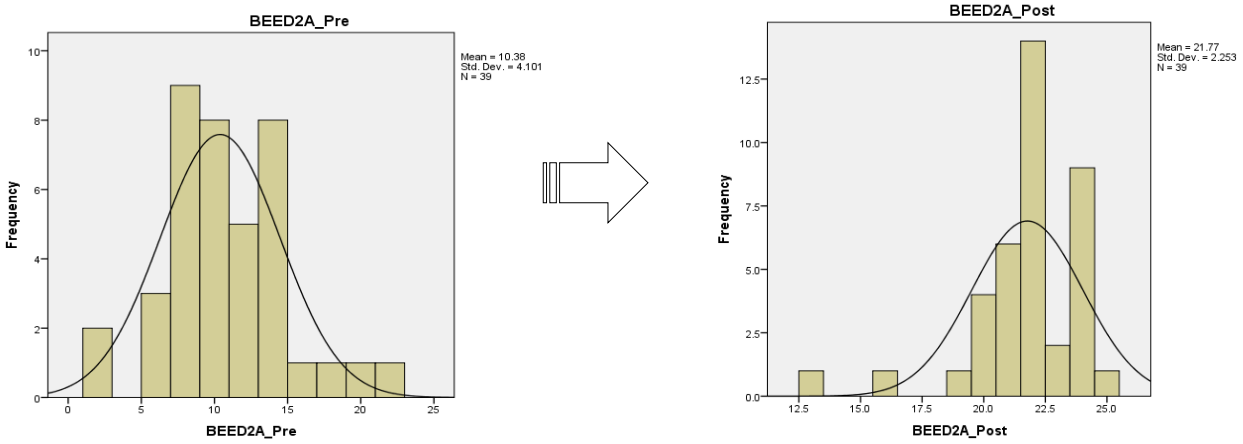
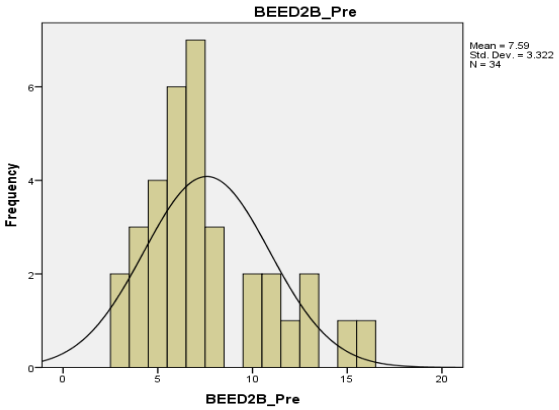


Figure 3.1.a. Pretest ***Figure 3.1.b. Posttest***

As **Figure 3.1(a-b)**, shows, Section 2A with a number of populations (N)=39, increased in achievement scores from pre-test mean of 10.38, SD =4.10 to post –test mean = 21.77 with SD = 2.25, for a difference of 11.39, with the three(3) online learning modalities as dependent variables.



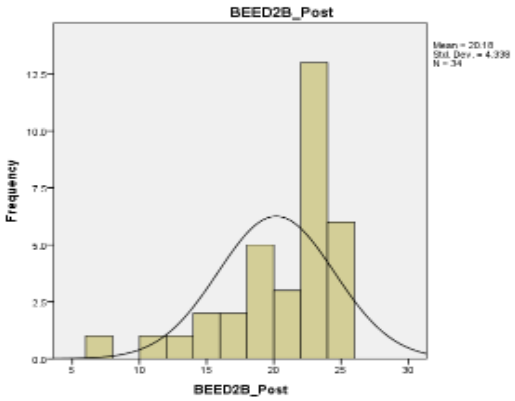
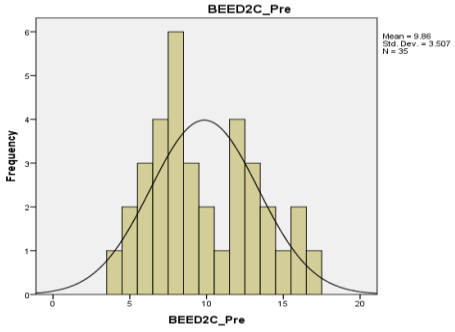


Figure 3.2.a Pretest ***Figure 3.2.b Posttest***

Figure 3.2.(a-b) describes a large increase in the achievement scores of Section 2B (N=34) with initial score, mean = 7.59 ,SD = 3.32 to final score, mean = 20.18, SD = 4.34. The difference is 12.59, showing effectiveness of the conduct of online learning using this learning modality which is highly noticeable.



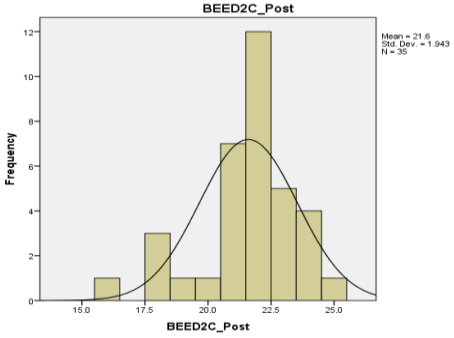
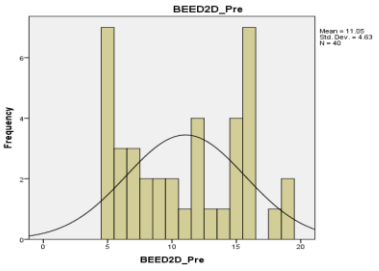


Figure 3.3.a. Pretest ***Figure 3.3.b. Posttest***

Figure 3.3.(a-b) reveals that respondents from Section 2C(N = 35) manifested that the difference between their post-test and pre-test is 11.74, a two-digit increase from the initial test value of 9.86, SD = 3.51 to the final test value = 21.6,SD = 1.94. Excitement and fully motivation are directly proportional to the achievement scores in reference to the online learning modalities.



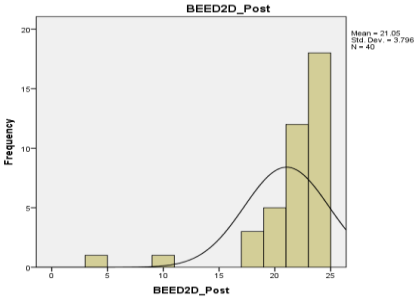


Figure 3.4.a. Pretest ***Figure 3.4.b. Posttest***

Figure 3.4. (a-b) illustrates that the pre-test = 11.05, SD = 4.63 and post-test = 21.05, SD = 3.80 with the difference of 10, showing an increase in value in terms of the achievement scores of respondents from section 2D (N= 40).

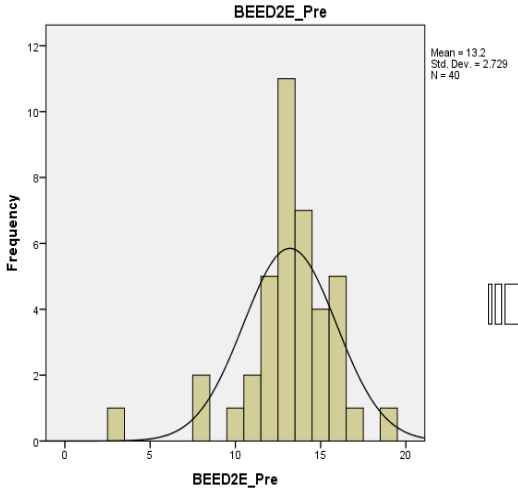


Figure 3.5.a Pretest

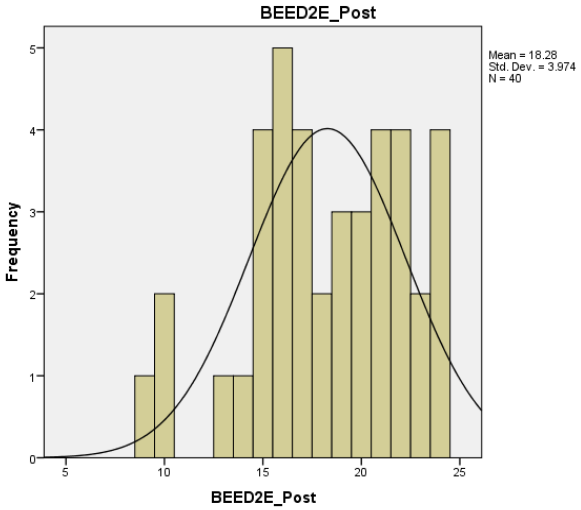


Figure 3.5.b. Post test

Finally, in **Figure 3.5.(a-b)**, it describes that the increase in the achievement scores of respondents' from Section 2E (N= 40) with the pretest value of 13.2, SD = 2.73 and posttest value of 18.26. This group of respondents has the lowest difference value of 5.06, showing that the group uniqueness depends on its ability and the intervention activities in response to flexible learning.

Is there a significant difference in the respondents achievement under the three (3) online learning platforms?

Table 3.4. The BEED 2A Achievement Scores versus the Three (3) Online Learning Platforms.

		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Diff_PrePost_2A - Facebook(2A-2E)	9.60	4.08	1.09	7.22	11.92	8.784	13	.000
Pair 2	Diff_PrePost_2A - Gmeet(2A-2E)	9.40	4.09	1.09	7.04	11.76	8.604	13	.000
Pair 3	Diff_PrePost_2A – SKSU_Eleads(2A-2E)	9.92	4.19	1.12	7.51	12.34	8.864	13	.000
	MEAN	9.64	4.12	1.1	7.26	12.01	8.76	13	

Table 3.4 reveals that there is a significant relationship between the achievement scores and the flexible learning process, particularly, the use of the three (3) online learning platforms with the overall value of $t = 8.76$, mean $=9.64$, $p < 0.05$ level of significance. This group of respondents (n= 39) are motivated in terms of their learning outcomes under this kind of online learning modalities used as the main component in flexible learning.

Table 3.5. The BEED 2B Achievement Scores versus the Three (3) Online Learning Platforms.

		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Diff_PrePost_2B - Facebook(2A-2E)	8.07	6.03	1.61	4.59	11.55	5.006	13	.000
Pair 2	Diff_PrePost_2B - Gmeet(2A-2E)	7.90	6.04	1.61	4.41	11.38	4.896	13	.000
Pair 3	Diff_PrePost_2B – SKSU_eleads(2A-2E)	8.42	6.06	1.62	4.93	11.92	5.206	13	.000
	MEAN	8.13	6.04	1.61	4.64	11.62	5.04	13	

Table 3.5 reveals that the three (3) online learning modalities with $t=5.04$, $p < 0.05$ level of significance have a significant affect on the achievement scores of the respondents . This group of respondents (n= 34) received a high impact from the flexible learning as the main indicator is their achievement scores directly proportional to the effectiveness.

Table 3.6 The BEED 2C Achievement Scores versus the Three (3) Online Learning Platforms.

		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Diff_PrePost_2C - Facebook(2A-2E)	8.86	4.02	1.08	6.53	11.18	8.240	13	.000
Pair 2	Diff_PrePost_2C - Gmeet(2A-2E)	8.68	4.01	1.07	6.37	10.10	8.096	13	.000
Pair 3	Diff_PrePost_2C - SKSU(2A-2E)	9.21	3.93	1.05	6.94	11.48	8.767	13	.000
	MEAN	8.92	3.99	1.07	6.61	10.92	8.37	13	

Table 3.6 describes that the effect of flexible learning on this group of respondents (n=35) is statistically significant with t= 8.37, p < 0.05 level of significance.

Table 3.7 The BEED 2D Achievement Scores versus the Three (3) Online Learning Platforms.

		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Diff_PrePost_2D - Gmeet(2A-2E)	6.75	5.61	1.50	3.52	9.99	4.508	13	.001
Pair 2	Diff_PrePost_2D - SKSU(2A-2E)	7.28	5.55	1.48	4.08	10.49	4.910	13	.000
Pair 3	Diff_PrePost_2D - Facebook(2A-2E)	6.93	5.59	1.49	3.70	10.15	4.640	13	.000
	MEAN	6.99	5.58	1.49	3.77	10.21	4.686	13	

Table 3.7 describes that the flexible learning for this group of respondents (n=40) is statistically significant with t= 4.69, p < 0.05 level of significance.

Table 3.8 The BEED 2E Achievement Scores versus the Three (3) Online Learning Platforms.

		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	BEED2E_DiffPrPs - Gmeet(2A-2E)	16.04	3.72	.10	13.90	18.19	16.115	13	.000
Pair 2	BEED2E_DiffPrPs - SKSU(2A-2E)	16.57	3.67	.98	14.45	18.69	16.879	13	.000
Pair 3	BEED2E_DiffPrPs Facebook(2A-2E)	16.21	3.75	1.0	14.05	18.38	16.169	13	.000
	MEAN	16.27	3.71	0.69	14.13	18.42	16.39	13	

Finally, **Table 3.8** describes that the flexible learning among this group of respondents (n=40) is higher in the value of t = 16.39 which has almost the same with mean = 16.27 indicating that the said flexible learning is not excellent to the group.

Are there significant differences among the three(3) online platforms ?

Table 3.9 The Difference in Main Gain scores of the Three(3) Online Learning Platforms.

ANOVA

		Sum of Squares	Df	Mean Square	F	Sig.
Facebook(2A-2E)	Between Groups	.242	7	.035	9.617	.007
	Within Groups	.022	6	.004		
	Total	.264	13			
Google_meet(2A-2E)	Between Groups	.035	7	.005	.579	.755
	Within Groups	.052	6	.009		
	Total	.086	13			
SKSU_Eleads(2A-2E)	Between Groups	.359	7	.051	.476	.823
	Within Groups	.646	6	.108		
	Total	1.005	13			

In **Table 3.9** shows that only one(1) was statistically significant among the three(3) online learning platforms in relation to the achievement scores of the respondents. The Facebook group online learning modality got $F(7,6) = 9.617$, $p < 0.05$, while the two (2) other online learning platforms have a computed p which is greater than 0.05, level of significant ($p > 0.05$), specifically, Google meet have $F(7,6) = 0.579$, $p > 0.05$ and SKSU Eleads, $F(7,6) = 0.476$, $p > 0.05$.

4. Discussion

Deed, C., et.al. (2019) explained that teaching practices respond to the prompts, resources and inherent potential of a school's physical, social and cultural landscape. In that case the Sultan Kudarat State University adapt the changes particularly the shifting from traditional learning to the online learning due to this Covid 19 pandemic. The creation of SKSU ELEADS is one of this example, but Deed C et.al, (2019) suggested that there should be the adaptation process like awareness, experimentation and coherence. It is shown that the perceptions of qualities among the respondents indicates a lowest mean scores of 3.15 as new to the respondents it needs awareness and testing its' effectiveness. Shi (2020) suggested that all stakeholders should consider flexible

learning from six aspects: infrastructure, learning tools, learning resources, teaching and learning methods, services for teachers and students, and cooperation between schools, governments, and enterprises To further strengthen the adaptability of flexible learning, future researches on this subject should pay more attention to the adaption of flexible learning in culturally and politically different context, the assessment and evaluation of learning experiences and outcomes of flexible learning, and teachers' competency building in the era of flexible learning (Canaran & Mirici, 2020). In the Mindanao, Philippines particularly in SKSU, where mostly of the respondents are coming from the rural areas, where there is a slow connection of Internet, the students and teachers are trying to catch up the flexible method, which the main learning modalities are the Google meet and Facebook. These two (2) learning modalities are very accessible, user friendly among the students and teachers that's why, Facebook group is the most favourite online learning modality among the two (2) particularly the Google Meet and SKSU ELEADS. Veletsianos & Houlden (2019) emphasized the effectiveness of the flexible learning with six themes: the qualities of flexibility as affording "anytime, anyplace" learning; flexibility as pedagogy; laboratory or service-oriented aspects of flexibility; limitations of flexibility, especially in terms of technology, the constraints of time and space, as well as cultural differences; flexibility as a quality needed by instructors and instructional designers themselves; and critiques of flexibility as a concept.

5. Conclusions

The Flexible Learning was used by the writer as his major teaching strategy under the conditions of this COVID- 19 pandemic, where no face-to-face was allowed, using three (3) online learning platforms like (i) SKSU-E leads(Electronic Learning delivery system) ; (ii) Google meet ; and (iii)FB Group which received a weighted mean of 3.44 indicating as 'good quality' and perceived by eighty six percent (86%) respondents described in the Table 5.1 to Table 5.3. These respondents from five (5) sections ,took a pre-and post teacher-made evaluation test. The positive skewedness as shown in Figure 5.1 to Figure 5.5 means that there is an increase in their achievement scores, even though no actual class activities happened inside the classrooms. Table 5.4 to table 5.8, BEED 2D shows that respondents got the lowest value of t= 4.69 and mean = 6.99. The BEED 2E did not enjoy much as shown by the value of t = 16.39 and mean = 16.27. Table 5.8 reflects that Facebook online platform is the most convenient, practical, and usable.

The most convenient and favorite online learning platform among the two hundred twenty (222) respondents is the FACEBOOK Group online platform, Google meet comes next and last in rank with the use of the SKSU Electronic Learning Delivery System(ELEADS). The effectiveness of the flexible learning is highly shown in the t-test results. It reveals that this flexible learning got an important value in terms of their academic learning competencies and still the respondents highly regard. The online face-

to-face modality, which shows that Google has a great impact on the effectiveness. Despite limited resources, like technical aspects as revealed in the qualities of flexible learning, online teaching modalities, the effectiveness of the learning delivered to every respondent without face-to -face instruction due to COVID 19, imparted knowledge on the subject matter.

Acknowledgements

The author acknowledges the work and contributions of SKSU Vice President for Academic Affairs in developing, initiating, and launching the SKSU ELEADS during the 1st semester, academic year 2020-2021 as the official online platform used by the SKSU, as part and parcel of flexible learning.

References

Abisado, M. B., Unico, M. G., Umoso, D. G., Manuel, F. E., & Barroso, S. S. (2020). A Flexible Learning Framework Implementing Asynchronous Course Delivery for Philippine Local Colleges and Universities. International Journal, 9(1.3).

Agormedah, E. K., Henaku, E. A., Ayite, D. M. K., & Ansah, E. A. (2020). Online Learning in Higher Education during COVID-19 pandemic: A case of Ghana. Journal of Educational Technology and Online Learning, 3(3), 183-210.

Ali, W. (2020). Online and Remote Learning in Higher Education Institutes: A necessity in light of COVID-19 pandemic. Higher education studies, 10(3), 16-25.

Barrera,K.L.,Jaminal, B., & Arcilla, F. (2020). Readiness for flexible learning amidst Covid-19 pandemic of Saint Michael College of Caraga, Philippines. SMCC Teacher Education Journal, 2,1-15.

Canaran, O, Mirici, I. H. (2020). A New Model of Team Teaching for Teacher Professional Development: A Case Study of In-Service English Teachers. Education and Science, 45(201), 247-271.

Camara, D., Jun, S., Cuison, A. T., C Dalisay, C. M., Salazar, J. M., & Valdez, M. (2021). Implementation of Flexible Learning in PSU Lingayen, Philippines–Initial Assessment for Sustainability Measures.

Commission on Higher Education (CHED). (2020). Philippine higher education response to COVID-19 pandemic. Retrieved on May 12, 2020, from https://ched.gov.ph/covid-19-updates/

Deed, C., Blake, D., Henriksen, J., Mooney, A., Prain, V., Tytler, R., Zitzlaff, T., Edwards, M.P., Emery, S., Muir, T., Swabey, K., Thomas, D., Farrelly, C., Lovejoy, V., Meyers, N., & Fingland, D. (2019). Teacher adaptation to flexible learning environments. Learning Environments Research, 23, 153-165.

Delgado, J. E., & Arellano, J. (2021). A Phenomenological Study of the Lived Experiences of Graduate Students Adapting Flexible Learning Modality Due to COVID-19 Pandemic. Asian Journal of Education and Social Studies, 7-16."

Gayeta, M. G. (2020). Effects of COVID-19 Outbreak on Higher Education in the Philippines: Obstacles, Opportunities, and Threats. PROCEEDINGS E-BOOK, 218.

Gocotano, T. E., Jerodiaz, M. A. L., Banggay, J. C. P., Nasibog, H. B. R., & Go, M. B. (2021). Higher Education Studentsâ€™ Challenges on Flexible Online Learning Implementation in the Rural Areas: A Philippine Case. International Journal of Learning, Teaching and Educational Research, 20(7).

Korkmaz S.& Mirici, İ. H. (2021): Converting a conventional flipped class into a synchronous online flipped class during COVID-19: university students' self-regulation skills and anxiety, *Interactive Learning Environments*, DOI: 10.1080/10494820.2021.2018615

Kummitha, H. R., Kolloju, N., Chittoor, P., & Madepalli, V. (2020). Coronavirus Disease 2019 and Its Effect on Teaching and Learning Process in the Higher Educational Institutions. Higher Education for the Future, 2347631120983650.

Lagat, K. T. (2020). Education amidst COVID-19 Disruption: Perceived difficulty in implementing flexible learning strategies of teacher education faculty members in a state university. Philippine Social Science Journal, 3(3), 142-150.

Laguador, J. M. (2021). Challenges Encountered during Pandemic in Flexible Learning Among College Students Living in Urban, Rural, and Suburban Areas in the Philippines. Asia Pacific Journal of Educational Perspectives, 8(1).

Lazaga, T. B., & Madrigal, D. V. (2021). Challenges and Opportunities of Online Learning Modality: Experiences of Social Science College Teachers in a Philippine Private School. Technium Soc. Sci. J., 20, 255.

Joaquin, J. J. B., Biana, H. T., & Dacela, M. A. (2020). The Philippine Higher Education Sector in the time of COVID-19. In Frontiers in Education (Vol. 5, p. 208). Frontiers.

Mobo, F. (2020). Transcending the Philippine Educational Culture through Virtual and Augmented Reality with the Integration of the Learning Management Systems. International Journal of Multidisciplinary: Applied Business and Education Research, 1(1), 4-5.

Moralista, R., & Oducado, R. M. (2020). Faculty perception toward online education in higher education during the coronavirus disease 19 (COVID-19) pandemic. Available at SSRN 3636438.

Pawilen, G. T. (2021). Preparing Philippine higher education institutions for flexible learning during the period of COVID-19 pandemic: Curricular and instructional adjustments, challenges, and issues: Preparing Philippine higher education institutions for flexible learning. International Journal of Curriculum and Instruction, 13(3), 2150-2166.

Shi, Y.H. (2020). Handbook on Facilitating Flexible Learning During Educational Disruption: The Chinese Experience in Maintaining Undisrupted Learning in COVID-19 Outbreak. Bulletin of the Technical Committee on Learning Technology, 20.

Tarrayo, V. N., Paz, R. M. O., & Gepila Jr, E. C. (2021). The shift to flexible learning amidst the pandemic: the case of English language teachers in a Philippine state university. Innovation in Language Learning and Teaching, 1-14.

Taylor-Guy, P., & Chase, A. M. (2020). Universities need to train lecturers in online delivery, or they risk students dropping out. The Conversation.

Veletsianos, G., & Houlden, S. (2019). An analysis of flexible learning and flexibility over the last 40 years of Distance Education. Distance Education, 40, 454 - 468.