The Assessment of the Implementation of E-Learning Modality as a Tool for Teaching at St. Louise De Marillac College of Sorsogon Higher Education Department (SLMCS-HED)

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Abstract — The research provided an assessment of the implementation of E-learning in St. Louise De Marillac College of Sorsogon Higher Education Department (SLMCS-HED). The respondents of the study were the teachers of SLMCS-HED. The design employed by this study was the descriptive–evaluative method of research because it described the assessment of the implementation of E-learning as a modality of teaching. This study used also the mixed design of research to combine both the quantitative and qualitative research components. Different statistical tools and techniques were used by the researcher to analyze and interpret the results. Weighted Mean was used to determine the level of preparedness made by the school to introduce the E-Learning Modality to the teachers; the assessment of the implementation of the new Modality as a Tool for Teaching at SLMCS-HED and the level of adjustment of SLMCS teachers in using E-learning modality. While frequency count and ranking were used to determine the gaps and issues encountered by the teachers in adopting the new learning modality in terms of Preparation and uploading of Modules in E-learning, Monitoring of students' learning, Checking of outputs/activities, Availability of Information Technology equipment such as computers, laptop, etc. and the Stability of Internet Connections, Time Management and Logistics. The research design and statistical treatment enabled the researcher to come up with the output of a proposed innovation to improve the implementation of the E-learning modality.

Keywords **—** Assessment of Implementation, E-learning, Modality, Higher Education Department

INTRODUCTION

Education is one of the important facets of one's life. It provides a lot of opportunities to develop the full potential and competencies of the person not only to become economically sufficient but also it provides life experiences to promote a well-rounded and holistically developed person. Culturally, in the Philippine setting education is perceived to be the reason for alleviating one's economic standing in society. Most Filipino families do their best to send their children to school at all costs and at all times.

A lot of expectations and eagerness among parents and learners turned into frustrations to the point of depression when the Department of Education and Commission of Higher Education announced the public closure of schools due to the looming danger of the Coronavirus pandemic. Most parents secured their children in the confined of their homes. Covid -19 became a menace in society.

The World Health Organization (2020) announced in January 2020 that Covid-19 was a public health crisis worldwide. The outbreak was reported as a pandemic in March 2020. The pandemic resulted in a dramatic loss of human life worldwide and become a challenge to public health, safety, field of work, and economic and social well-being of people (ILO, FAO, IFAD and WHO, Joint Statement, 2020). The outbreak also brought significant disruptions in education that affected severely the students learning, the parents, faculties, teachers, and the school administrators.

Globally, the delivery of education has dramatically been reshaped. A lot of learners were affected due to the closures of schools and the sudden shift from classrooms to virtual or online platforms. Many believe that the adoption of online modality will persist during the time of the pandemic (Ghada, Refaat El, 2021, p. 10). Even before, high growth and adoption of education technology were already recorded (World Economic Forum, 2020).

The outbreak led both public and private Higher Education Institutions (HEIs) in the Philippines to adjust to the new situation where face-to-face interaction is prohibited during that time. Despite the circumstance, the leading universities and colleges in the Philippines, as committed to their mandates found innovative ways to deliver quality education to the students (Simbulan, Nymia P., 2020).

The use of E-learning has been growing because of many advantages. These advantages could transform education into a lifelong learning process (Al-Asmari, A., 2014). The level of satisfaction with using E-learning in developed countries was much better compared to the developing countries because mostly agreed that E-learning is best for giving knowledge but not much for acquiring clinical and technical skills (Abbasi, Maria S. et al, 2020).

The St. Louise De Marillac College of Sorsogon, Inc (SLMCSI) as one of the respective private colleges operated by a religious group in the Province of Sorsogon had already adopted the E-learning system as a mode of delivering academic services to their students. The objectives/purpose of the study aims to know the following:

1. Determine the level of preparedness made by the school to introduce the E-Learning Modality to the teachers.

2. Assess the implementation of E-Learning Modality as a Tool for Teaching of St. Louise De Marillac of Sorsogon Higher Education Department (SLMCS-HED) teachers in terms of:
   - 2.1. Preparation and uploading of Modules in E-learning
   - 2. 2. Monitoring of students' learning
   - 2. 3. Checking of outputs/activities
   - 2.4. Availability of Information Technology equipment such as computers, laptops, etc, and the Stability of Internet Connections
   - 2. 5. Time Management
   - 2. 6. Logistics

3. Determine the level of adjustment of SLMCS teachers in using the E-learning modality.

4. Determine the gaps and issues encountered by the teachers in adopting the new learning modality in terms of:
   - 4.1. Preparation and uploading of Modules in E-learning
   - 4.2. Monitoring of students' learning
   - 4. 3. Checking of outputs/activities
   - 4.4. Availability of Information Technology equipment such as computers, laptops, etc, and the Stability of Internet Connections
   - 4. 5. Time Management
   - 4. 6. Logistics

5. Propose innovations that could be designed to improve the implementation of E-learning as a modality of teaching.

MATERIALS AND METHODS

Our paper applied the descriptive–evaluative method of research. This method appraised carefully the worthiness of the present study (Calmorin, Laurentina P, 2010). It was descriptive–evaluative primarily because it described the assessment of the implementation of E-learning as a modality of teaching. This study used also the mixed design of research to combine both the quantitative and qualitative research components. The mixed method increases the knowledge and validity of the study and expands the findings to bolster the conclusion and meaningfully contribute to the academic sphere as published literature. The mixed method design allows the researcher to supply personal opinions in the conclusion section of the paper (Almalki, Sami, 2016).

The respondents of the study consisted of all the teachers of St. Louise De Marillac College of Sorsogon - Higher Education Department (SLMCS-HED) which is composed of 24. They are all qualified respondents to this research. The proponent did not apply the Sampling Method since the population is only 24, hence all the HED teachers were considered as the respondents of the study. The researchers employed the survey questionnaire in collecting and gathering the data that were used in discussing the assessment of the implementation of e-learning as a tool for the teaching of SLMCS teachers. The questionnaire is a list of planned written questions, intended for submission to several persons for a reply (Good, Carter V., 1984, p.323). A survey questionnaire aimed to develop comprehensive, standardized questions and response options catered to respondents to produce meaningful responses that will generate facts, perceptions/behavior, and other subjective states.

The questionnaires were distributed to the respondents. Some of the respondents were given enough time (a maximum of 1 week) to answer the instrument. After the allotted time, it was claimed and checked. The dissemination and administration of answering the survey questionnaire were personally conducted. So as not to defeat the purpose of the research instrument and to secure correct data/information, the researcher judiciously aided and guided the selected respondents in answering each part of the questionnaire to ensure clarity and comprehensiveness. The respondents' responses had been analyzed, studied carefully, and treated statistically after consultation with the researchers' statistician to have a clear understanding of the results. After the collection of data from the respondents, different statistical tools and techniques were used to analyze and interpret the results.

Weighted Mean was used to determine the level of preparedness made by the school to introduce the E-Learning Modality to the teachers; the assessment of the implementation of the new Modality as a Tool for

Teaching at St. Louise De Marillac College of Sorsogon Higher Education Department (SLMCS-HED) and the level of adjustment of SLMCS teachers in using E-learning modality. The weighted mean is defined as the value obtained by adding the frequency of the distribution, multiplying it by the weight of the scale, and dividing the sum by the total number of respondents (Altares, Priscilla S., 2003). The formula for weighted mean is presented as follows:(Zulueta, Francisco M., et al, 2010)

$$\bar{x} = \frac{f_1x_1 + f_2x_2 + f_3x_3 + f_4x_4 + \ldots + f_nx_n}{N}$$

where $\bar{x}$ = weighted mean
f = frequency of responses
x = weight of response
N = total number of respondents

Below are the scales used for the interpretation of the results of the conducted survey questionnaires:

For the level of preparedness made by the school to introduce the E-Learning Modality to the teachers:

WEIGHTED MEAN	VERBAL INTERPRETATION	DESCRIPTION
4.60-5.00	Advanced	The school has suitably prepared in advance to introduce the e-learning modality to the teachers.
3.60-4.59	Very Prepared	The school has a good preparation for introducing the e-learning modality to the teachers.
2.60-3.59	Slightly Prepared	The school has little preparation for introducing the e-learning modality to the teachers
1.60-2.59	Not at all prepared	The school has prepared but not enough to introduce the e-learning modality to the teachers.
1-1.59	Very Unprepared	The school has not prepared of introducing the e-learning modality to the teachers.

For the assessment of the implementation of E-Learning Modality as a Tool for Teaching at St. Louise De Marillac College of Sorsogon Higher Education Department (SLMCS-HED) in terms of Preparation and uploading of Modules in E-learning, Monitoring of students' learning, Checking of outputs/activities, Availability of Information Technology equipment such as computers, laptop, etc and the Stability of Internet Connections, Time Management and Logistics:

WEIGHTED MEAN	VERBAL INTERPRETATION	DESCRIPTION
4.60-5.00	Excellent	The E-learning modality as a tool of teaching is excellently implemented in those identified indicators.
3.60-4.59	Very Good	The E-learning modality as a tool of teaching is really good as to its implementation in those identified indicators.
2.60-3.59	Good	The E-learning modality as a tool of teaching is satisfactorily implemented in those identified indicators.
1.60-2.59	Fair	The E-learning modality as a tool of teaching is just implemented in those identified indicators.
1-1.59	Needs Improvement	Improvements are needed in the implementation of the E-learning modality as a tool for teaching in those identified indicators.

For the level of adjustment of SLMCS teachers in using E-learning modality:

WEIGHTED MEAN	VERBAL INTERPRETATION	DESCRIPTION
4.60-5.00	Extensive Adjustment	The SLMCS teachers made a wide adjustment in using the E-learning modality.
3.60-4.59	Major Adjustment	The SLMCS teachers made a material adjustment in using the E-learning modality.
2.60-3.59	Substantial Adjustment	The SLMCS teachers made a significant adjustment in using the E-learning modality.
1.60-2.59	Minor Adjustment	The SLMCS teachers made a slight adjustment in using the E-learning modality.
1-1.59	Minimal Adjustment	The SLMCS teachers made the fewest adjustment in using the E-learning modality.

Frequency count and ranking were used to determine the gaps and issues encountered by SLMCS HED teachers in adopting the new learning modality in terms of Preparation and uploading of Modules in E-learning, Monitoring of students' learning, Checking of outputs/activities, Availability of Information Technology equipment such as computers, laptop, etc. and the Stability of Internet Connections, Time Management and Logistics. Frequency count is defined as the number of times the answer was given by the respondents (Altares, Priscilla S., 2003).

The researcher listed all the enumerated gaps and issues encountered by the teachers in adopting the new modality and used the Ranking for the analysis of the result. The ranking is defined as the process of determining the relative position of values, measures, or scores according to the basics such as the magnitude of worth, quality, importance, or chronology (Cristobal, Pagoso M., et al, 1999). This statistical treatment was used to rank from highest to lowest ranked those gaps and issues encountered.

RESULTS AND DISCUSSION

1. Level of Preparedness made by the School to Introduce the E-Learning Modality to the Teachers

Table 1 presents the weighted mean and description of what level of preparedness are made by the school to introduce the e-learning modality to the teachers.

Table 1: *Weighted Mean and Description of the Level of Preparedness made by the School to Introduce the E-Learning Modality to the Teachers*

Indicator	Weighted Mean $(\bar{x})$	Description
The use of online/digital platform	3.83	Very Prepared
Education/Training in using the online platform	3.63	Very Prepared
Content Development	3.67	Very Prepared
Assessment of learning	3.54	Slightly Prepared
Development of Technological Skills	3.71	Very Prepared
Development of values and attitudes toward the use of technology	3.79	Very Prepared
Generation of grades	3.50	Slightly Prepared
Uploading of modules	3.92	Very Prepared
Downloading of Lessons	3.92	Very Prepared
Monitoring of progress of performance	3.67	Very Prepared
Timeliness of learning engagement	3.38	Slightly Prepared
Overall Weighted Mean (x)	3.69	Very Prepared

In general, the teachers agree that the school is "very prepared" in introducing the E-learning modality in SLMCS, with an overall weighted mean of 3.69.

The result infers that the school is well prepared in introducing the e-learning modality to the teachers. This is consistent with the findings of Jamlan (2004) that e-learning was positively viewed by the faculty members.

Among the indicators of the level of preparedness, the two indicators with the highest rating from the respondents are as follows: Uploading of modules and Downloading of Lessons, both having a weighted mean of 3.92 and indicating very prepared for these activities. Also, the following are assessed as very good in the level of preparation: The use of online/digital platform (x = 3.83); Education/Training in using the online platform (x = 3.63); Content Development (x = 3.67); Development of Technological Skills (x = 3.71); Development of values and attitudes towards the use of technology (x = 3.79); and the Monitoring of progress of performance (x = 3.67). The results signify that most of the faculty confirmed that SLMCS is ready beforehand and able to deal with the use of E-learning modality.

However, it is also noticeable that there are still some indicators that the teachers are slightly prepared in the assessment of learning (x = 3.67); generation of grades (x = 3.50); and the timeliness of learning engagement (x = 3.38). This shows that SLMCS has a preparation but not enough in those mentioned activities.

2. The assessment of the implementation of the E-Learning Modality as a Tool for Teaching at St. Louise De Marillac College of Sorsogon Higher Education Department (SLMCS-HED).

On the other hand, Table 2 presents the weighted mean and description of the assessment of the implementation of the E-Learning Modality at St. Louise De Marillac College of Sorsogon Higher Education Department (SLMCS-HED).

Table 2: *Weighted Mean and Description of Assessment of Implementation of E-Learning Modality of SLMCS – HED Teachers*

Indicator	Weighted Mean $(\bar{x})$	Description
Preparation and uploading of Modules in E-learning	3.79	Very Good
Monitoring of students' learning	3.67	Very Good
Checking of outputs/activities	3.79	Very Good
Availability of Information Technology equipment such as computers, laptops, etc., and the Stability of Internet Connections	3.13	Good
Time Management	3.54	Good
Logistics	3.67	Very Good
Overall Weighted Mean (x)	3.60	Very Good

It can be observed from the table that the teachers assessed the implementation of E-learning as "very good" with an overall weighted mean of 3.60. The indicators - Preparation and uploading of Modules in E-learning; Monitoring of students' learning; Checking of outputs/activities; and Logistics have weighted averages of 3.79, 3.67, 3.79, and 3.67 respectively. All of these are described as "very good". Implied by the results that the teachers perceived that implementation of E-learning is truly good in those indicators.

The indicators that are perceived by the respondents as only good are the following: Availability of Information Technology equipment such as computers, laptops, etc., and the Stability of Internet Connections (x = 3.13); and Time Management (x = 3.13). Given these, it indicates that the E-learning modality as a tool of teaching is satisfactorily implemented in those identified indicators. The result is parallel to Milla, Hilyati, et al study which states that online learning has done very well.

3. Level of adjustment of SLMCS teachers in using E-learning modality.

Presented in Table 3 is the weighted mean and description of the level of adjustment of SLMCS teachers in using the E-learning modality.

Table 3: *Weighted Mean and Description of the Level of adjustment of SLMCS teachers in using E-learning modality.*

Indicator	Weighted Mean $(\bar{x})$	Description
Level of adjustment of SLMCS teachers in using E-learning modality	3.79	Major Adjustment
Overall Weighted Mean (x)	3.79	Major Adjustment

As gleaned from the table, the teacher has undergone major adjustment in using the E-learning modality of teaching, having a weighted mean of 3.79. The result implies that the SLMCS – HED teachers materially made a huge adjustment and exerted much of their efforts to deal with the new modality. Particularly in the aspect of familiarizing the features and the commands in using the system in E-learning. The teachers themselves appear to be in a search of help, assistance, and support at the stage of adjustment to a new educational environment (Horostovatova, Y.O, 2021, p. 91).

4. The gaps and issues encountered by SLMCS HED teachers in adopting the new learning modality.

This part of the study is concerned with the gaps and issues encountered by SLMCS HED teachers in adopting the new learning modality in terms of Preparation and uploading of Modules in E-learning; Monitoring of students' learning; Checking of outputs/activities; Availability of Information Technology equipment such as computers, laptop, etc. and the Stability of Internet Connections; Time Management; and Logistics. These are discussed in the succeeding tables and presentation.

Table 4.1 illustrates the frequency count and ranking of the gaps and issues encountered in terms of the Preparation and uploading of Modules in E-learning.

Table 4.1: *Frequency Count and Ranking of gaps and issues encountered in terms of the Preparation and uploading of Modules in E-learning.*

Gaps and issues encountered	Frequency Count	Ranking
Low stability of internet connection	11	**1**
Time Consuming	8	**2**
Difficulty in uploading lessons especially those with computations	5	**3**
Limited applications/software for activities	2	**4**

As shown in the table, the respondents determine that the low stability of internet connection is the first rank among the gaps and issues encountered in the preparation and uploading of modules in E-learning, it has a frequency count of 11. This is followed by the time consuming having a frequency count of 8. While difficulty in uploading lessons especially those with computations is ranked 3 with a 5 frequency count. Rank 4 is the limited applications/software for activities with a frequency count of 2.

Based on the results, it implies that the worst issue encountered by the teachers of SLMCS from the implementation of the E-learning in terms of preparation and uploading of modules is the internet connection problem.

Revealed in Table 4.2 shows the frequency count and ranking of gaps and issues encountered in the student's learning monitoring.

Table 4.2: *Frequency Count and Ranking of gaps and issues encountered in the student's learning monitoring.*

Gaps and issues encountered	Frequency Count	Ranking
Delayed submission of student's outputs	2	4.5
Failure or Incomplete submission of outputs of the students	4	1
Cheating among students is unavoidable	3	2.5
Taking time in getting the student's result	2	4.5
Student's uncooperative even with the teacher's intervention	3	2.5
Technical Issues encountered	1	6

Table 4.2 shows that among the gaps and issues encountered in the monitoring of students' learning, the failure or incomplete submission of outputs of the students has the highest issue they encounter in such activity. It is ranked 1 with a frequency count of 4. However, the unavoidable cheating of the students and their uncooperative even with the teacher's intervention place rank 2.5, both have a frequency count of 3. Found in rank 4.5 are the delays in the submission of student's outputs, and taking time in getting the student's results, they all have a frequency count of 2. Rank 6 is the technical issues encountered with a frequency of 1.

Displayed in Table 4.3 are the frequency count and ranking of faculty teacher's gaps and issues encountered in checking the outputs and the activities of the students.

Table 4.3: *Frequency Count and Ranking of gaps and issued encountered of faculty teachers in checking the student's output and activities.*

Gaps and issues encountered	Frequency Count	Ranking
Time Consuming and Time Constraints	6	1
Failure to submit student's modules/outputs within the time allotted	5	2
Poor internet connection	4	3
Checking of outputs is not automatically saved	2	4
Hard to check outputs, especially in mathematics where most of the time the students just uploaded in image their answers	1	7
There are times when automatic checking fails to function	1	7
Health concern	1	7
Difficult in downloading and checking outputs	1	7
Some outputs are missing or incomplete	1	7

Based on the result in Table 4.3, the highest rank among all the gaps and issues encountered by the respondents is the time-consuming and time constraints with a frequency count of 6. Next to that is the failure on the part of the teachers to submit students' modules/outputs within the time allotted, its frequency count is 5. In rank 3 is the poor internet connection having a frequency count of 4. While rank 4 is the checking of outputs that are not automatically saved, this has a frequency count of 2. Out of 9 enumerated gaps and issues, 5 of them are in rank 7, namely: hard to check outputs, especially in mathematics where most of the time the students just uploaded images of their answers; there are times when automatic checking fails to function; health concern; difficult in downloading and checking outputs; and some outputs are missing or incomplete. All of which have a frequency count of 1.

Table 4.4 presents the encountered gaps and issues by the teachers in the availability of information technology equipment such as computers, laptops, etc., and the stability of internet connections.

Table 4.4: *Frequency Count and Ranking of gaps and issues encountered by the teachers in the availability of information technology equipment such as computers, laptops, etc., and the stability of internet connections.*

Gaps and issues encountered	Frequency Count	Ranking
Not all students are equipped with computers and laptops; however, they use their mobile phones instead	1	5.5
Poor internet connection	13	1
Some laptops require specific processors to have a faster utilization	1	5.5
Uncontrollable wifi signal that is entirely dependent on the service provider	3	2
Limited equipment when conducting an online and asynchronous learning	2	3.5
Some of the teachers use their laptops	2	3.5

As gleaned in Table 4.4, the highest rank as an identified issue by the teachers is the poor internet connection with a frequency count of 13. Next in rank is the uncontrollable wifi signal that is entirely dependent on the service provider, this has a frequency count of 3. While both rank 3.5 and with the same frequency count of 2 are limited equipment when conducting online and asynchronous learning and some of the teachers use their laptops. Rank 5.5 are some of the laptops that require specific processors to have a faster utilization and not all students are equipped with computers and laptops, however, they use their mobile phones instead, same have a frequency count of 1.

Table 4.5 has a list of frequency counts and a ranking of the gaps and issues encountered by the respondents in time management.

Table 4.5: *Frequency Count and Ranking of gaps and issues encountered by the respondents in time management.*

Gaps and issues encountered	Frequency Count	Ranking
The time frame was not followed	8	1
Unable to meet the schedule of the topics in the syllabus and the unavailability of some of the students	2	2

As gleaned in Table 4.5, the most gaps and issues encountered by the SLMCS – HED teachers in time management of E-learning is that the time frame is not followed, it has a frequency count of 8. Rank 2 is unable to meet the schedule of the topics in the syllabus and the unavailability of some of the students has a frequency of 2.

Listed in Table 4.6 are the frequency count and ranking of the gaps and issues encountered in E-learning in terms of logistics. The teachers, along with this, identified 4 issues.

Table 4.6: *Frequency Count and Ranking of gaps and issues encountered in logistics*

Gaps and issues encountered	Frequency Count	Ranking
Though an MIS team is assigned, it still, lacks regular technical assistance to make the E-learning modality easier for teachers up to the young once	1	**2.5**
Unfamiliar user interface	1	**2.5**
There is no regular training on the different parts of the LMS which needs to be done so that teachers could manage by themselves some technical issues.	1	**2.5**
No regular budget for data usage where the internet connection is unstable or disconnected	1	**2.5**

As clearly illustrated in Table 4.6, all of the four identified gaps and issues are placed in rank 2.5 and with a frequency count of 1. Those are the unfamiliar user interface; there is no regular training on the different parts of the LMS which needs to be done so that teachers could manage by themselves some technical issues; though an MIS team is assigned, it still, lacks regular technical assistance to make the E-learning modality easier for teachers up to the young once; and no regular budget for data usage where internet connection is unstable or disconnected.

Consistent with the findings of J. Tarus, et al4, the result of his study reveals that challenges are hindering the implementation of e-learning in Kenyan public universities. In the study, it has emerged that implementation of e-learning in Kenya faces several challenges which include but are not limited to inadequate ICT and e-learning infrastructure, financial constraints, expensive and inadequate Internet bandwidth, lack of operational e-learning policies, lack of technical skills on e-learning and e-content development by teaching staff, lack of interest and commitment among the teaching staff, and the longer amount of time required to develop e-learning courses. The study concludes that successful implementation of e-learning can easily be achieved if these impediments can be addressed.

Parallel also in the result of the present research is the study conducted by Tahereh Eslaminejad, et al5, they suggested that training should be offered to instructors on a continuous, rather than a one-off basis so that their IT knowledge and skills are upgraded over time. In addition, results indicate that pedagogical innovations are required to develop and implement the effectiveness of e-learning programs.

5. Proposed innovation that could be designed to improve the implementation of E-learning as a modality of teaching

The introduction and implementation of E-learning in every institution have brought advantages and disadvantages. As a result of the study conducted, the St. Louise De Marillac of the College of Sorsogon – Higher Education Department (SLMCS-HED) has a good preparation for introducing the e-learning modality to the teachers. The school also is very good when it comes to the implementation of the new modality of learning. Despite such, there is always room for improvement, hence, the gaps and issues are identified. With this, proposed innovations are formulated by the researcher based on the results gathered in the study.

RATIONALE:

The COVID-19 pandemic changes the lives of human beings. It affects the economy, livelihood, education, health, and physical and mental well-being of people nationwide. This pandemic has reshaped the culture of education. There was a sudden shift from face-to-face classes to modular distance learning up to the implementation of E-learning at all levels.

The existence of the pandemic led the St. Louise De Marillac College of Sorsogon (SLMCS) to adopt the E-learning modality as a tool for teaching in the institution. Implementing such requires investment, not just only in financial aspects but in the engagement of its teachers and the students as well. The training was also conducted to introduce the modality to the end users. The new learning process in the smooth run was assessed by the teachers in the higher department as very good from the time it was introduced until the time of its implementation. However, during that time, it also undergoes certain trials before it was fully implemented. The teachers made a major adjustment in using E-learning. The teachers have to study the new learning modality and cope with it to deliver quality education to the students.

The implementation of E-learning in the school gave several benefits to its operation, but it has encountered various problems from the teachers and other stakeholders. There is a need to eliminate or lessen the gaps and issues identified and encountered by the HED teachers.

Based on the result of the present study, the researcher came up with the proposed innovations to address the gaps and issues encountered by the teachers. This will not guarantee that those problems will be eliminated, but the output will surely help the institution to enhance and improve the implementation of the new modality of learning.

OBJECTIVES:

The proposed innovations of the E-learning implementation in St. Louise De Marillac College of Sorsogon – Higher Education (SLMCS-HED) generally aim to deliver quality education to the students by upgrading and enhancing the implementation of the modality.

Specifically, it intends to carry out the following objectives:

1. To integrate recreational, highly engaging activities in the learning process in E-learning.
2. To conduct comprehensive training for both the students and the teachers for the additional skills needed in managing E-learning.
3. To improve the stability of internet connections.
4. To strengthen internal control in using the E-learning system.
5. To improve E-learning by making it more user-friendly.
6. Ensuring information security in E-learning.
7. Allocating funds for the purchase of Information and Communication Technology (ICT) Equipment (Laptops, Computers, Uninterruptible Power Supply (UPS), and the like and load allowance for data usage in case the internet connection is unstable or disconnected.
8. Integrate motivational features to encourage the students to submit completely their outputs on time.

Based on the result of the study, the researcher proposed innovations to improve the implementation of E-learning in St. Louise De Marillac of Sorsogon. This is presented on the next page.

OBJECTIVES	ACTIVITIES AND STRATEGIES	PERSONS INVOLVED	PROPOSED BUDGET	TIME FRAME	EXPECTED OUTCOME
• To integrate recreational, highly engaging activities in the learning process of E-learning.	• Discover a well-designed E-learning. • Design the best features that will integrate recreational and interactive activities between the teachers and the students. • Incorporate videos, presentations, and webinars to make their courses more accessible, exciting, and interesting. • If the IT in-charged is found to have overloaded work, consider hiring another IT staff to assist the person-in-charged in handling the E-learning system.	Management IT personnel	P150,000.00	End of last quarter, 2022	• Resulting in a better learning engagement between the teacher and the students.

• To conduct comprehensive training for both the students and the teachers for the additional skills needed in managing E-learning.	• Schedule training with the users of the E-learning that will mainly focus on discussing the features, the basic troubleshooting, and how to use the system. • Ensure that the users have acquired the necessary skills to be employed in managing the E-learning. • Discuss the concerns in using the new learning modality and address such promptly.	Management IT personnel Faculty teachers Students	P8,000.00	End of last quarter, 2022	• The system users will acquire the technical know-how on basic troubleshooting and the knowledge of the features and technicalities of the system. • A Reliable internet connection gives a lot of convenience to the faculty teachers and allows them to complete the tasks/lessons with less hassle. It gives also the teachers accessibility to all types of information.
• Improve stability of internet connections.	• Search and apply for the best internet source provider. • Avoid interference to signal strength just like watching youtube and the likes. The internet connection is purely used in the learning process. • Install wifi extender or booster in the HED faculty office. • Control the bandwidth application and avoid network overload • Locate the best place for the router	Management IT personnel	P40,000.00	The first quarter of 2023	

	• Keep the network secure • Allot budget for data usage where internet connection is unstable or disconnected.				
• To strengthen internal controls in using E-learning.	• Assign personnel to monitor the activity logs of those who access the E-leaning. • Disconnect those faculty teachers who resigned, retired, terminated, or separated from SLMCS-HED, prohibiting them to access the system. • Incorporate additional security features just as enabling the users to change their username and password at least once a month.	IT personnel	None (0.00)	October 2022	• Improved efficiency and effectivity in the implementation of E-learning.
• To make E-learning more user-friendly.	• Improve features that can easily access the system. • Streamlined navigations or make it simple. • Have a one-on-one session with those who are not good at using technology. • Improve automation of checking of outputs especially those with computations and the automatic saving of documents/files/ outputs of the students.	IT Personnel	None (0.00)	October 2022	• It made it easy for the users to carry on with their usual workload without dealing with complicated or over-complex controls.

• Ensuring information security in e-learning.	• Establish backup data storage like hard drives, flash drives, and the like. The files may also store online (google drive, cloud-based, etc.). • Install anti-virus and anti-spam. • Should use the advanced encryption standard. • Regularly conduct monitoring and security check-ups.	IT personnel	None (0.00)	November 2022	• Ensure that the information is secured and free from any hacking or access by an unauthorized person.
• To allocate funds for the purchase of Laptops, Computers, Uninterruptible Power Supply (UPS), and the like and load allowance for data usage in case the internet connection is unstable or disconnected.	• Allot budget to address the inadequacy of Information and Communication Technology (ICT) Equipment. • Procure and purchase the equipment with a high-quality standard. • Ensure that the specifications are compatible with the E-learning system.	Management Accounting Personnel	P100,000.00	December 2022	• Adequate ICT resources, sufficient enough to deliver quality education to the students.
• Integrate motivational features to encourage the students to submit completely their outputs on time.	• Encourage students to actively do their assigned tasks (quizzes, activities, examinations, etc.) within the time specified through a message and motivational features.	IT personnel	None (0.00)	November 2022	• The student's willingness and encouragement to completely submit their outputs.

The study assesses the implementation of E-learning as a Tool for Teaching at SLMCS-HED. The respondents of the study were the teachers of SLMCS-HED.

Based on the data and information gathered through the survey questionnaire, the following were the salient findings of this study: 1) The teachers agreed that the school is "very prepared" in introducing the E-learning modality, with an overall weighted mean of 3.69; 2) The teachers assessed that the implementation of E-learning at SLMCS is "very good" with an overall weighted mean of 3.60. The indicators - Preparation and uploading of Modules in E-learning; Monitoring of students' learning; Checking of outputs/activities; and Logistics have a weighted average of 3.79, 3.67, 3.79, and 3.67 respectively. All of these were assessed as "very good" as to the implementation. However, the indicators that are perceived by the respondents as good are the following: Availability of Information Technology equipment such as computers, laptops, etc., and the Stability of Internet Connections (x = 3.13); and Time Management (x = 3.13); 3) The teacher had undergone major adjustment in using the E-learning modality of teaching with a weighted mean of 3.79; 4) The gaps and issues encountered by the teacher in terms of a) Preparation and uploading of Modules in E-learning – the respondents determined that the low stability of internet connection is the first rank, it has a frequency count of 11. This is followed by the time consuming having a frequency count of 8. While difficulty in uploading lessons especially those with computations is ranked 3 with a 5 frequency count. Rank 4 is the limited applications/software for activities with a frequency count of 2; b) Monitoring of student learning – the failure or incomplete submission of outputs of the students was the highest issue they encountered in such activity. It was ranked 1 with a frequency count of 4. However, the unavoidable cheating of the students and they are being uncooperative even with the teacher's intervention place rank 2.5, both had a frequency count of 3. Found in rank 4.5 were the delays in the submission of students' outputs, and taking time in getting the student's results, they all have a frequency count of 2. Rank 6 is the technical issues with a frequency of 1; c) Checking of outputs/activities - the highest in rank among all the gaps and issues encountered by the respondents; time-consuming and time constraints with a frequency count of 6. Next to that was the failure on the part of the teachers to submit students' modules/outputs within the time allotted, its frequency count is 5. Rank 3 was the

CONCLUSIONS AND RECOMMENDATIONS

poor internet connection having a frequency count of 4. While rank 4 was the checking of outputs that are not automatically saved, this had a frequency count of 2. Out of 9 enumerated gaps and issues, 5 of them were in rank 7, namely: hard to check outputs, especially in mathematics where most of the time the students just uploaded images of their answers; there are times when automatic checking fails to function; health concern; difficult in downloading and checking outputs; and some outputs are missing or incomplete. All of which had a frequency count of 1; d) Availability of Information Technology equipment such as computers, laptops, etc, and the Stability of Internet Connections - the highest in rank as identified issue by the teachers is the poor internet connection with a frequency count of 13. Next in rank is the uncontrollable Wifi signal that is entirely dependent on the service provider, this has a frequency count of 3. While both rank 3.5 and with the same frequency count of 2 are limited equipment when conducting online and asynchronous learning and some of the teachers use their laptops. Rank 5.5 are some of the laptops that require specific processors to have a faster utilization and not all students are equipped with computers and laptops, however, they use their mobile phones instead, had a frequency count of 1; e) Time Management - the most gaps and issues encountered by the SLMCS – HED teachers in time management of E-learning is that the time frame was not followed, it has a frequency count of 8. Rank 2 is unable to meet the schedule of the topics in the syllabus and the unavailability of some of the students had a frequency of 2; f) Logistics - all of the four identified gaps and issues were placed in rank 2.5 and with a frequency count of 1. Those were the unfamiliar user interface; there is no regular training on the different parts of the LMS which needs to be done so that teachers could manage by themselves some technical issues; though an MIS team is assigned, it still, lacks regular technical assistance to make the E-learning modality easier for teachers up to the young once; and no regular budget for data usage where internet connection is unstable or disconnected; 5) The development of proposed innovations to improve the implementation of E-learning as a modality of teaching could reduce the identified gaps and issues encountered by the teachers of SLMCS-HED.

Based on our findings, we recommend the following:

1. Much effort is exerted by the school in implementing E-learning to attain a high level of assessment.
2. Regular monitoring and evaluation of the E-learning implementation be conducted to ensure that it is implemented accordingly.
3. The gaps and issues encountered by the teachers in using E-learning be lessened.
4. Protecting the data incorporated in E-learning be strengthened.
5. Regular training among all the users be conducted to properly execute the utilization of E-learning.
6. The proposed innovation be adapted to improve the implementation of E-learning.

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REFERENCES

[1] Abbasi, Maria S. et al. (2020, January 1). 'E-Learning Perception and Satisfaction Among Health Sciences Students Amid the COVID-19 Pandemic': 549 – 556.

[2] Al-Asmari, A.M.; Khan, M.S.R. (2014). E-learning in Saudi Arabia: Past, present, and future. Near the Middle East. J. Res. Educ. 2014, 2014, 2. [Google Scholar] [CrossRef].

[3] Almalki, Sami. (2016). "Integrating Quantitative and Qualitative Data in Mixed Methods Research—Challenges and Benefits". Journal Of Education and Learning 5 (3): 288. doi:10.5539/jel.v5n3p288.

[4] Altares, Priscilla S., et al. (2003). Elementary Statistics. Rex Book Store, Inc.: Sampaloc, Manila.

[5] Calmorin, Laurentina P. (2010). Research and Statistics with Computer. National Book Store: 125 Pioneer Street, Mandaluyong City.

[6] Cristobal, Pagoso M., et al. (1999). Fundamental Statistics of College Students. Rex Book Store, Inc.: Sampaloc, Manila.

[7] Ghada, Refaat El. (2021) Said, "How Did the COVID-19 Pandemic Affect Higher Education Learning Experience? An Empirical Investigation of Learners' Academic Performance at a University in

a Developing Country", Advances in Human-Computer Interaction, vol. 2021, ArticleID 6649524, 10 pages. https://doi.org/10.1155/2021/6649524.

[8] Good, Carter V. (1984), "Dictionary of Education" (New York: McGraw Hill Book Co.), p.323.

[9] Horostovatova, Y.O. (2021). "The Shift in Educational Paradigm: Premises for Re-design and Adjustment to E-learning Landscape", Odesa State Academy of Civil Engineering and Architecture, Odesa Ukraine, p. 91.

[10] ILO, FAO, IFAD and WHO (2020). Joint Statement, "Impact of COVID-19 on people's livelihoods, their health, and our food systems". https://www.who.int/news/item/13-10-2020-impact-of-covid-19-on-people's-livelihoods-their-health-and-our-food-systems.

[11] Jamlan, M. (2004). Faculty Opinions towards Introducing e-Learning at the University of Bahrain. International Review of Research in Open and Distributed Learning, 5(2), 1–14. Retrieved from https://doi.org/10.19173/irrodl.v5i2.185.

[12] Milla, Hilyati, et al. (n.d). Analysis of the Implementation of Online Learning During COVID-19. International Journal of Multicultural and Multireligious Understanding. https://dx.doi.org/10.18415/ijmmu.v5i4.2577.

[13] Simbulan, Nymia Pimentel, "The Philippines – COVID-19 and Its Impact on Higher Education in thePhilippines".https://headfoundation.org/2020/06/04/covid-19-and-its-impact-on-higher-education-in-the-philippines/.

[14] Tahereh Eslaminejad, Mona Masood & Nor Azilah Ngah (2010). Assessment of instructors' readiness for implementing e-learning in continuing medical education in Iran, Medical Teacher, 32:10, e407-e412, DOI:10.3109/0142159X.2010.496006.

[15] Tarus, J., Gichoya, D. & Muumbo, A. (2015). Challenges of Implementing E-Learning in Kenya: A Case of Kenyan Public Universities. International Review of Research in Open and Distributed Learning, 16(1), 120–141. https://doi.org/10.19173/irrodl.v16i1.1816.

[16] WHO. (2020): Coronavirus disease (COVID-2019) situation reports. https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports.

[17] World Economic Forum. (2020). "3 ways the coronavirus pandemic could reshape education,". https://www.weforum.org/agenda/2020/03/3-ways-coronavirus-is-reshaping-education-and-what-changes-might-be-here-to-stay.View at Google Scholar.

[18] Zulueta, F. M., and Perez, J. R. (2010). Methods of Research Thesis Writing and Applied Statistics. National Book Store: 125 Pioneer Street, Mandaluyong City.