

Impact of Modular Distance Learning on the Performance of Grade 8 Learners in Science

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Abstract— This study assessed the impact of modular distance learning in the performance of grade 8 learners in science for academic year 2020-2021 and the performance of grade 8 in science. In addition, factors affecting the performance of grade 8 learners in science was also assessed. This study employed a descriptive-correlational research design in the collection of data from the population as it seeks to describe the impact of MDL to students' performance and the relationship between students' performance to the impact of MDL along with the identified variables such as efficiency, learning environment, school support and parental involvement. It utilizes both quantitative and qualitative data to cover for the weaknesses of each data sets and provide support for the researcher's claims. A survey questionnaire was utilized to gather the primary data from the respondents. Likewise, the 120 grade 8 learners from four different schools were the respondents of the study. The final rating in science of the students were also provided by the subject teachers at the respective schools.

Keywords— Impact, Modular Distance Learning, Performance Level, Completion.

INTRODUCTION

The fight against the threats to COVID-19 pandemic suffered profound effects and impacts on almost all sectors in the society. These have resulted in the widespread disruption such as travel restrictions, closure of schools, global economic recession, political conflicts, racism, and misinformation and controversies, to name a few. One of the most affected is the educational sector. In developed countries such as the United States of America, UK, New Zealand, Singapore, and South Korea, the COVID-19 situation has been a little regulated since the emergence of vaccines and citizens already are being vaccinated. But for almost two pandemic months, most countries around the world have temporarily closed educational institutions to contain the spread of the COVID-19 pandemic and reduce infections (UNESCO, 2020). This cessation has affected more than 1.2 billion learners worldwide. Temporary solutions such as community lockdowns and community quarantines of several countries have led students and teachers to study and work from home which led to the delivery of online learning platforms. Conversely, the implementation of online learning posed different risks, problems and challenges to both the teachers and students, especially in the higher education institution.

The present COVID-19 contagion has brought extraordinary challenges. Every country is presently implementing plans and procedures on how to contain the virus, and the infections are still thriving and thus

introducing transition from face-to-face processes to online and non-physical transactions. In the educational perspective, to endure and provide quality education despite lockdowns, community quarantines and restricted movements, the new normal should be taken into contemplation in the planning and implementation of the "new normal educational policy". In the Philippines, almost 28 million learners have been affected by the pandemic (UNESCO, 2020). As of now, where there is still a growing COVID-19 infection in the country, the present study would lay down some of the new normal situation in the school setting.

As the Department of Education continues to anchor on the 'No Learner Left Behind' advocacy, it gave no excuses for public primary and secondary schools to skip a school year. Although school year 2020- 2021 started way late in the year as it started in October, 2020, DepEd enforced that modular learning shall be the primary mode of learning the learners and teachers shall adapt. The department even created an action plan in light of the COVID 19 pandemic situation. DepEd's Basic Education- Learning Continuity Plan (BE-LCP) streamlines the K to 12 Curriculum into the Most Essential Learning Competencies (MELCs), to be delivered in multiple learning modalities and platforms. According to the DepEd Order No. 12, s. 2020, the MELCs shall be used nationwide by field implementers for SY 2020-2021 only. Furthermore, the streamlining of the K to 12 Curriculum into the MELCs is an emergency measure to allow instruction amid

challenging circumstances to focus on the most essential learning, and to ease the requirements for adapting classroom-based learning resource for distance learning.

In this light, the new normal education has been defined by the current global situation forced by the pandemic. New Normal Education (NNE) in its previous traditional sense was the modern teaching approach which combines face-to-face or traditional classroom learning with online learning or e-learning. Blended learning (BL) allows the students to set appropriate learning goals as well as helps them to be responsible for their own learning. In contrast, blended learning, in light of the pandemic, has been deemed not limited combination of face-to-face classes and online learning. In the BE-LCP, radio and television lessons are also made use together with online classes to prevent having face to face sessions. Still, the primary mode of learning delivery in DepEd schools is thought modular learning.

As this is implemented, Science subjects in secondary schools are challenged to device ways in delivering modular lessons creatively. Before, the BL pedagogical approach in learning Science was commonly taught using a lecture and textbook format. In this pedagogical approach, students are assigned a textbook to read at home before class and listen to an instructor lecture on the assigned material during class. But in the new normal approach, blended learning has a far more different approach in terms of teaching Science subjects.

For Grade 7 Science subjects, the teaching of the subject in NN is considered grim. As the students are still transitioning from primary school to secondary, the approach into the subject should engage grade 7 students between what they were used to in elementary and the slow progression to the pedagogical approach in secondary education.

This presents an even greater challenge for Science teachers handling grade 7 learners. Not only will grade 7 teachers continually adopt to the transition their learners are experiencing, but also both teacher and learners shall adapt to the new normal of education. Science, as a subject, requires different strategies to hit different levels of competencies to master the lessons. In Philippine public schools, modular learning, which is only very limited to written works and performance tasks that are unguided by teachers, is the major option for majority of Filipino learners.

In Sorsogon City, the Department of Education Sorsogon City Division has clearly adapted the order from DepEd National Office. The BE-LCP, the use of modular approach to learning, and the use of distance learning approaches are being adapted. For grade 7 learners in Science subjects, teachers and students maneuver through learning the Most Essential Learning Competencies through modules although there are instances where teachers can be reached through calls, texts, or messenger applications. For the present study, the impact of MDL in the performance of grade 8 learners in Science shall be the main subject of the investigation.

METHODOLOGY

Descriptive-correlational method was utilized as research design of the study. Under this method, responses were gathered from the survey questionnaire dealing with the impact of MDL to the performance of Grade 8 learners in science. This method was chosen to gather the impact of the MDL to their performance and the problems encountered of the Grade 8 Science learners in MDL.

The primary sources of data were the chosen 120 respondents wherein 30 of them were from an equally categorized as large size schools with almost the same number of populations in the city division of Sorsogon, namely Panlayaan Technical Vocational School, Rizal Integrated National School, Pamurayan Integrated School and Celestino G. Tabuena National High School. The identified population of interest were the science grade 8 students from which the samples were drawn since the main objective of this study is to determine the impact of modular distance learning in the performance level in science of grade 8 students. Through purposive sampling technique, the researcher determined the sample size. The questions used in the questionnaires were localized, which was validated by the researcher's adviser.

IMPACT OF MDL TO THE PERFORMANCE OF GRADE 8 LEARNERS IN SCIENCE

1. Level of Performance of the Grade 8 Learners in the MDL

This section reveals the level of performance of grade 8 learners in Science in the MDL. The data are presented in table 1. It can be gleaned from the table that the overall performance level of 120 total respondents is 83.3 with verbal description of satisfactory. It can be observed that 46 or 38 % of the respondents were under

the category of satisfactory level of performance in Science. Meanwhile, only 10 or 8% were on the category of outstanding. It is not a surprising phenomenon that the performance level of students appeared to be as such in the new normal due to the fact that students were confronted with challenges brought

about by the aftermath of the global pandemic. Besides, students were used to face to face encounter with their teachers before the threat of pandemic, wherein the interaction of teacher-student were possible in raising question pertaining to understanding the lessons.

Table 1: Level of Performance of the Grade 8 in the Modular Distance Learning

Scale	Frequency (f) n=120	Percentage (%)
90 – 100 (O)	10	8
85 – 89 (VS)	37	31
80 – 84 (S)	46	38
75 – 79 (FS)	27	23
Mean Performance = 83.3% (Satisfactory)		

In addition, based on the researcher's interview, respondents said that sometimes they were left alone to work independently on their learning tasks with so much activities provided in the learning materials. Also, some students said that although they were accompanied at home by members of their family, most of the times parents/guardians cannot assist them in understanding difficult subject matters in their lessons since the family members are busy doing their daily household chores. Another factor that hinders the parents/guardian to fully guide the students, as per interview, is the educational attainment of the parent/guardian. Most of them have attained only elementary level of education. Hence, the fundamental question is how many of the parents can help their children in doing their learning task or even siblings. Thus, students may have no choice but to work independently in order to comply with the academic requirements without assurance of whether the students were able to submit quality outputs. To ensure improvement in the level of performance of students, various positive contributing factors must be considered and look into for creating measures to further enhance the sustainability of their productive impact.

Although, there is no enough evidence of whether the satisfactory performance level of grade 8 students in science in the new normal can be perceived to have declined due to pandemic. Hashemi (2021), however, emphasized that one of the affected outcomes of covid-19 was the academic performance of the students.

2. Impact of the MDL on the Performance of the Grade 8 Learners in Science

This section reveals the impact of the MDL on the performance of the learners in terms of efficiency, learning environment, school support, and parental involvement. Tables were used to present the data.

Efficiency. Table 2A reveals the impact of the MDL on the performance of the learners in terms of efficiency. Submitting the outputs on or before the schedule and time of retrieval obtained the highest weighted mean value of 3.13 described as moderate impact. Some respondents said that they need to submit the outputs because they were only given one week to work on them and it is hard for them to accomplish a piled set of modules because they tend to cram just to beat the deadline.

Table 2A: Impact of Modular Distance Learning on the Performance in terms of Efficiency

Indicators	WM	Description
1. Completed answering LAS/Learning module but with difficulty since some topics are very difficult to understand.	3.20	moderate impact
2. Completed answering LAS/Learning module w/o difficulty understanding the topics discussed in the subject.	2.51	moderate impact
3. Incomplete answers in LAS/Learning module due to the type of test applied therein (e.g. essay, problem solving).	2.83	moderate impact

4. Lack of eagerness to finish answering the module due to non-availability of materials needed especially during activities and experiments.	2.85	moderate impact
5. Outputs are submitted on or before the schedule and time of retrieval	3.13	moderate impact
Overall Weighted Mean	2.87	moderate impact

On the other hand, completely answering the LAS/learning module without difficulty understanding the topics discussed in the subject was also identified to have a moderate impact as revealed by weighted mean value of 2.51 which is the lowest. According to some students when they were in a hurry answering the modules, they copied some answers from the answer key or asked friends to share to them the answers. Generally, the impact of the new normal on the performance of the Grade 8 learners in Science in terms of efficiency can be described as moderate impact as shown by the overall weighted mean value of 2.87.

The results indicate that students were probably aware to meet teacher's expectations that outputs should be submitted on time whether or not the outputs were completely accomplished. Also, the students were able to submit them on time perhaps because some of them had just copied the answers from the answer key provided for the activities. Moreover, submission on time of outputs might be attributed to the fact that parents were around providing instructional supervision

to their children in accomplishing their learning tasks. Most respondent said their parents got mad at them when they were not doing their learning tasks. Although some of them said that parents give them much time for them to accomplish the learning tasks. Thus, since outputs are the primordial bases for assessing the performance, students are obliged to submit their outputs on time without even ascertaining its quality. Gueta and Janer (2021) likewise stated the importance of time management in accomplishing self-learning modules (SLM) that impacts distance learning among elementary pupils. Aside from this, they also identified other challenges on the use of SLMs for distance learning.

Learning Environment. Table 2B reveals the impact of the MDL on the performance of the learners in terms of learning environment. The table reveals that learning environment has a moderate impact on the performance of grade 8 learners in science during the new normal as indicated by the overall weighted mean value of 2.84.

Table 2B: Impact of Modular Distance Learning on the Performance in terms of Learning Environment

Indicators	WM	Description
1. There is conducive study place at home with good lighting and ventilation.	3.08	moderate impact
2. The place is free from noise coming from vehicles, neighbors, siblings, etc.	2.63	moderate impact
3. There are available learning materials/resources such as textbooks.	2.83	moderate impact
4. Gadgets are available in accomplishing learning activities.	2.73	moderate impact
5. There is enough school supplies which can be used in school learning activities.	2.93	moderate impact
Overall Weighted Mean	2.84	moderate impact

Specifically, the presence of conducive study place at home with good lighting and ventilation has a moderate impact with a weighted mean value of 3.08 which is the highest. Most respondents said that they were provided with space at home yet share with their siblings, and with time in accomplishing their academic tasks. On the other hand, the lowest weighted mean of 2.63 pertains to the place being free from noise coming from vehicles, neighbors, siblings, etc. According to some students they experienced less distractions since less people were out of their home and other respondents' home were far from the roads or highways. However, other

respondents were sometimes interrupted due to siblings watching television.

It means that students possibly recognized the impact of physical location in their performance over other similar learning environmental factors such as school facilities with all the necessary supplies like textbooks and other instructional materials. Also, this result implies that students perhaps experienced poor physical learning environment in their respective homes. Hence, this may suggest that a teacher can conduct training to parents of possible solutions on how they can ensure that students

are provided with sound physical learning environment at home.

This result is consistent with the study of Baafi (2020) specifying that among the senior high school students in Ghana, those with pleasant physical environment performed better than those who performed in an environment not conducive for learning.

School Support. Table 2C generally reveals that school support has a moderate impact on the performance of the learners as indicated by the weighted mean value of 2.71. Specifically, the school's creation of a Group Chat in every class had a moderate impact with a weighted mean value of 3.29 which is the highest. Most students said that they could easily send and receive information from their classmates and teachers when raising queries about difficulties they encountered in their lessons.

Table 2C: Impact of Modular Distance Learning on the Performance in terms of School Support

Indicators	WM	Description
1. The teachers monitor the queries of learners and give immediate response to their concerns.	3.07	moderate impact
2. Teachers conduct home visitations.	2.65	moderate impact
3. The teachers have established communication with our parents regarding our study.	3.09	moderate impact
4. The teachers/school ensure that we have copies of our learning activity sheets/modules, schedule and learning plan to study and answer.	3.14	moderate impact
5. The teachers give us free prepaid load in times we need it for our study.	1.26	no impact
6. The school/teacher ensures the quality of printed learning materials.	2.53	moderate impact
7. The school/teachers provide intervention programs to students at risk of dropping out (SARDO).	2.61	moderate impact
8. The teachers deliver the LAS/modules to the student's house when parents are not able to get the LAS/SLM in school.	2.40	less impact
9. The teacher checks regularly the output of the learners and give them constructive feedback.	3.10	moderate impact
10. The school created a Group Chat in every class.	3.29	Moderate impact
Overall Weighted Mean	2.71	moderate impact

On the contrary, the teachers give us free prepaid load in times we need it for our study obtained the lowest weighted mean value of 1.26 described as no impact. It has no impact since almost all students said that their loads were not from their teachers. Only a few said that sometimes they asked the help of their teachers if there was no other means to provide themselves with prepaid load. Although other respondents said that sometimes they used hotspot from their siblings or parents.

During lockdown, students were hindered from face-to-face interactions. Schools were closed thus, no classes can be conducted. However, in spite of the threat of COVID-19, classes must go on. Hence, the Department of Education adopted mechanisms to provide education among the learners through distance learning modalities with modular instruction as the common choice among public schools. The newness of this instructional method to the learners poses challenges that is why teachers also came up with other strategies to connect with the students at least virtually. These strategies include the

use of messenger group chat, emails, text, and other technological aids. Specifically, the group chat provides the students easy access of communicating their academic concerns.

Moreover, the group chat as a way transmitting information seemed to have paramount importance in the performance of students' learning task. Thus, it implies that despite the absence of physical interaction among students and teachers in the class, group chat as a social media platform, encourages collaboration and provides opportunities for learning and sharing of information. Waddell (2015) asserted that overall technology is central to many sectors of society and its integration into the education process has great promise to students learning.

Parental Involvement. Table 2D reveals the impact of the MDL on the performance of the learners in terms of parental involvement. It can be gleaned from the table that the impact of MDL in the performance level in

terms of parental involvement is 3.00, described as moderate impact. The item that obtained the highest weighted mean value of 3.28, moderate impact pertained to parents provide moral support and encouragement. Most of the respondents said that their parents are on task with them. Their parents were always following them up if their learning tasks were already

done. They said that their parents provided them with their needs for projects and other performance tasks assigned to them. It means that students acknowledged the significant role of parents in improving their academic performance. Also, with the restrictions in the mobility of the learners, the parents were the one claiming modules and submitting them.

Table 2D: Impact of MDL on the Performance in terms of Parental Involvement

Indicators	WM	Description
1. Parents provide assistance in answering LAS/MODULES.	3.04	moderate impact
2. Parents contact the school to get information and communicates to teachers regarding LAS/ Module activities.	3.08	moderate impact
3. Parents ensure that we have resources to answer and accomplish all the learning tasks in the LAS/MODULES.	3.06	moderate impact
4. Parents regularly follow the schedule of release and retrieval of LAS/modules.	3.22	moderate impact
5. Parents listen to what the child needs and fulfills it to the best of their capacity.	3.13	moderate impact
6. Parents strictly monitor our time/schedule in answering the modules/LAS.	3.03	moderate impact
7. Parents ensure that we have a conducive study place at home.	3.11	moderate impact
8. Parents provide positive reinforcement or give rewards.	2.64	moderate impact
9. Parents seeks tutorial sessions to address the difficulties encountered by their child.	2.57	moderate impact
10. Parents establish disciplinary actions whenever we failed to do our school activities.	2.82	moderate impact
11. Parents provide moral support and encouragement.	3.28	moderate impact
Overall Weighted Mean	3.00	moderate impact

Furthermore, parents played the role of being facilitators of learning. A study conducted and published in Flipsience (2020) supposed that since education is no longer held within the school, parents serve as partners of teachers in education. Parents play a vital role as home facilitators. Their primary role in modular learning and online learning delivery is to establish a connection and guide the child. In the present study, this scenario poses occurrence in the modular learning and online distance learning of grade 8 Science learners.

The result of this study is very relevant to the study conducted by Gernandizo & Janer (2021) that parents provide supports in terms of instructional supervision.

As a result, parents are challenged to perform their task in order to facilitate continuity of learning.

3. Relationship between the impact of the MDL and the level of performance of the Grade 8 learners in Science

Table 3 shows the relationship between the performance level of the grade 8 learners and the impact of the MDL along efficiency, learning environment, school support, and parental involvement. The foregoing data were treated using Pearson correlation coefficient (r) using two-tailed test at .05 level of significance and 118 degrees of freedom with a critical value of ± 0.17999 .

Table 3: Relationship between the impact of the MDL and the level of performance of the Grade 8 learners in Science

Statistical Bases	Statistical Analyses			
	Efficiency	Learning Environment	School Support	Parental Involvement
Coeff of determination	0.00600	0.01502	0.00082	0.07385
Computed r value	0.07743	0.12260	-0.02865	0.27176

Decision on Ho	Do not reject	Do not reject	Do not Reject	Reject
Conclusions	Not Sig	Not Sig	Not Sig	Sig

Level of significance = .05 | Degree of freedom = 118 | Critical value of $r_{0.05} = \pm 0.17999$

Efficiency. The table shows that the null hypothesis cannot be rejected since there is no significant relationship between the performance level of the grade 8 learners and the impact of the MDL along efficiency. This was revealed by the computed Pearson r value of 0.07743 which is within or lower than the critical value of 0.17999 at 0.05 level of significance and 118 degrees of freedom. Moreover, the computed coefficient of determination (R-squared) was 0.00600 which means only 0.6% of the variation in the level of performance was explained or affected by efficiency and 99.4% was unexplained or unaffected due to chance or other variables. This implies that in spite of the fact that efficiency was perceived by the respondents to have had a moderate impact, however, it does not affect the level of performance of the learners in Science regardless of whether the students submitted the outputs on or before the scheduled retrieval or complete the module on time. This part seems to show how students manage their time to beat the deadline. However, Obiekwe (2019) asserted in her study that students encountered challenges in terms of time management and students do not effectively observe time management towards their academic performance.

Learning Environment. The table shows that the null hypothesis cannot be rejected since there is no significant relationship between the performance level of the grade 8 learners and the impact of the MDL along learning environment. This was revealed by the computed Pearson r value of 0.12260 which is within or lower than the critical value of 0.17999 at 0.05 level of significance and 118 degrees of freedom. Further, the computed coefficient of determination (R-squared) was 0.01502 which means that 1.50% of the variation in the level of performance in science of grade 8 was slightly affected by learning environment. This implies that although respondents perceived learning environment to have had a moderate impact it almost does not affect the level of performance of grade 8 learners in science regardless of whether there was a pleasant physical environment conducive for learning since there are still other contributing factors to be considered that could probably influence the level of performance of learners. Because according to the interview on the respondents, they don't care much on the challenges they have encountered pertaining their learning environment.

What matter most to them is to finish and complete the modules/LAS since they want to have time for their leisure and other household chores.

According to Ajayi (2021) and Oluchukwu (2020) as cited by Santos (2021) learning environment, which includes the classrooms, libraries, technical workshops, laboratories, teacher's quality, school management, peers and teaching methods are variables that affect academic achievements of students. This result is relevant to the study conducted by Farooq et al. (2019) that the physical facilities at home were found to be significant variables in the academic achievements, however, overall home environment was satisfactory, but the academic achievements were not outstanding.

School Support. The table shows that the null hypothesis cannot be rejected since there is no significant relationship between the performance level of the grade 8 learners and the impact of the MDL along school support. This was revealed by the computed Pearson r value of -0.02865 which is within or lower than the critical value of 0.17999 at 0.05 level of significance and 118 degrees of freedom. Likewise, the computed coefficient of determination of 0.00082 or 0.082% tells that school support has almost no effect on the level of performance in science of grade 8 learners. This means that the perceived moderate impact of the MDL in terms of school support does not affect the level of performance of the learners in science regardless of whether the school provided group chat in every class or ensured that students had copies of learning activity sheets/modules, schedule and learning plan to study and answer. Based on the interview, the creation of GC is not an assurance that the students will be guided accordingly since sometimes it is very tiring to back read long conversations unlike in a face to face set up wherein the interaction is live and in real time. The students also are aloof in communicating online for fear of being misunderstood and misjudged on their posts. The confidence they have during face-to-face interaction is not the same in online discussions. They prefer one on one tutorial rather than seek guidance online. Hence, this result is due to the fact that there is no face-to-face interaction between teacher and the students which according to David (2016) that teachers have substantial impact on students' academic and life-long success. In

general, this result is associated to the study of Savasci & Tomul (2013) that educational resources of the school were not at the level to affect the academic achievements of the students.

Parental Involvement. The table shows that there is a significant relationship between the performance level of the grade 8 learners and the impact of the MDL along parental involvement as indicated by the computed Pearson r value of 0.27176 which is beyond or higher than the critical value of 0.17999 at 0.05 level of significance and 118 degrees of freedom, hence the null hypothesis is rejected. Meanwhile, the computed coefficient of determination was 0.07385 which means that 7.385% of the variation of the performance level in science of grade 8 students was explained by and correlated to parental involvement. Although the correlation is weak, this means that parental involvement somehow affects the level of performance of the learners in science. It implies that parental involvement is a significant factor that contribute to the academic progress of the students. At the conducted interview, the students tend to ask for assistance from their family members first before asking help from their teachers. They only resort asking for guidance from their teacher if all efforts were already exhausted by both

parents/guardians and students in understanding the subject. This result is relevant to the study conducted by Otani (2017) which stated that parental involvement was associated with educational outcome.

4. Problems Encountered by the Grade 8 Learners in Science in MDL

This section tackles the problems encountered by the grade 8 learners in Science in the MDL. The data are shown in Table 4. It can be gleaned in the table that the overall weighted mean value is 2.67 describing that the challenges encountered by the students are moderate. Based on students’ responses, they encountered the challenge primarily on having poor internet connection as the highest with weighted mean value of 3.12, followed by the difficulty in understanding the concepts in the modules and activity sheets due to the complexity of the terms used and unavailability of materials during experiments with weighted mean value of 3.00 and 2.82 respectively and which are describe as moderate problem. On the other hand, no groupings for idea sharing, and conflicts between household chores and study schedule obtained a weighted mean value of 2.44 and 2.41 respectively while lacking collaborative activities found to be the lowest with weighted mean value of 2.40 which are described as minor problem.

Table 4: Problems Encountered by the Grade 8 Learners in Science in MDL in terms of Completion of Module

Indicators	WM	Description
1. Lack of gadgets and equipment to be used in distance learning.	2.78	moderate problem
2. Conflicts between household chores and study schedule.	2.41	minor problem
3. Difficulty in understanding the concepts in the modules and activity sheets due to the complexity of the terms used.	3.00	moderate problem
4. Poor internet to no connection.	3.12	moderate problem
5. Lack of Collaborative Activities.	2.40	minor problem
6. No Groupings for Idea sharing.	2.44	minor problem
7. Unavailability of materials during	2.82	moderate problem
8. experiments.		
9. Lack of reading time habit	2.45	minor problem
10. Poor quality of printed modules	2.76	moderate problem
11. Peer influence in studying	2.51	moderate problem
Overall Weighted Mean	2.67	Moderate problem

Poor internet connection has been a perennial problem not only by the respondents in this study. It implies that students may not access easily to information that they need and could not perform well in their academic tasks. As per interview, there is a weak connection to no internet connection in most of the students’ residences. They tend to find a good place or spot to catch signal since there are still areas in Sorsogon City

which are not serviceable in terms of internet and mobile signals. Internet connection is a necessary educational technology tool that further advance students’ knowledge and skills through the huge variety of educational information. Furthermore, Dogniez (2019) explained that internet provides opportunities to improve the quality of education. New ways of teaching and learning, access to much wider range of information

and resources, new skills for digital age: all this can transform lives, helping to achieve education for all and other sustainable development goals.

However, difficulty in understanding the concepts in the modules and activity sheets due to the complexity of the terms used also found to be a moderate problem among the respondents. It implies that the respondents struggled in understanding the lesson particularly the new concepts that probably need an explanation from the teacher, and vague instructions for the activities. According to the respondents, as cited during the interview, they tend to guess the answers just to comply and complete the activities. Some just leave it blank and don't dwell too much in answering the modules/LAS. It may also imply unpreparedness of teachers in the production of modules or learning activities due to drastic implementation of modular distance learning. This study is relevant to the study of Dangle and Sumaoang (2020) who explained that students struggled with self-studying using modules. They also concluded that the challenges on modular distance learning were on resources, preparedness and communication.

Furthermore, unavailability of materials during experiments was also found to be a moderate problem to the respondents. Due to the fact that schools were closed, respondents could not access the science laboratories and other materials for experiments, and besides people were hindered to go out of their homes especially minors. This may imply also that modules contained activities that required students to do an experiment. Hence, this result suggests that modules and learning activity sheets should be revisited and align the activities in the context of the present condition of global pandemic. According to Winthrop (2020), laboratory activities in sciences and other subjects that require performance such as Physical Education and culture and arts would be limited to paper and pen test, unless schools will require students to be physically present to be assessed through performance tests.

On the other hand, no grouping for idea sharing was of minor problem among the respondents because as per interview, they need to adapt themselves to learning using modules or probably because of poor internet connection and they could hardly connect to their classmates to share ideas. They also do not know most of their classmates since they do not have interactions physically. This result implies that even without their

peers to share their ideas with they can still manage their learning tasks independently. According to Xi Yi (2020), the use of modules encourages independent study. One of the benefits of using modules for instruction is the acquisition of better self-study or learning skills among students. Students engage themselves in learning the concepts presented in the module. They develop a sense of responsibility in accomplishing the tasks provided in the module. With little or no assistance from others, the learners progress on their own. They are learning how to learn as they are being empowered.

Moreover, conflicts between household chores and study schedule were also of minor problem among the respondents. Based on the interview, they have adjusted to manage their time properly and in addition, because of the claim that many activities are provided in the modules, the result also indicate that parents were giving much time their children to accomplish the learning activities. However, this finding is relevant to the report of Rinzin (2020) about the study of UNICEF's U-Report South Asia poll which explained that more than one in three students could not study at home as they were engaged in household chores during pandemic.

Finally, another item which was considered by the respondents as minor problem was the lack of collaborative activities. It indicates that students perhaps understood that the modules provided for them were intended for independent learning and does not need collaboration. That is why respondents were not expecting collaborative activities since they could not form a group during pandemic. Hence, collaborative activities might not be possible for modular distance learning because collaborative learning occurs when students work in group to discuss ideas and solve problems together (RANDSTAD 2019).

CONCLUSION

On the light of the findings, the following conclusions were drawn: The overall performance level of grade 8 students in science in the new normal was satisfactory. Parental involvement found to be the topmost that impacted the level of performance of grade 8 students in Science. It is simply because the parents act as the learning facilitators in the new normal. They also provide for the learners needs: emotionally and financially. Without their full support, the modular learning won't be easy. The impact of new normal along with the identified variables have significant

relationship in the performance level of grade 8 students in Science. Among the four recognized variables, Parental Involvement has the highest significant relationship in the performance of the learners in Science. Eleven out of Fifteen challenges presented in the survey yielded moderate problem. Poor internet connection was the most challenging difficulty encountered by the students in completing their modules in the new normal.

RECOMMENDATIONS

Based on the conclusions, the following recommendations are made: The teacher may design instructional materials to supplement and aid in Modular Distance Learning and thereby improve students' performance in science. The school may formulate a program or an activity intended for parents to train and assist them in order to sustain the facilitation of their children's Modular Distance Learning. The schools may maintain partnership with the parents and guardians by frequent visitation and consistent open communication thru text, call and postings on social media of information dissemination and words of encouragements. The school may coordinate to local community stakeholders specially government and barangay officials for possible provision of sound internet connection.

The action plan proposed in this study may be adopted. After undergoing a thorough review and evaluation by proper authorities. Further studies may be conducted to supplement the findings revealed in this study.

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