

Effectiveness of Learning Activity Sheets to The Performance of Grade 7 Students in Mathematics

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Abstract-This study aimed to determine the effectiveness of the Learning Activity Sheets to the performance of the grade 7 students in Mathematics. The findings of the study served as bases for the proposed intervention plan. This study utilized the quasi-experimental research design to evaluate the impact of covid 19 to the performance of grade 7 students in Mathematics . The results were the basis for an intervention Plan. The researcher utilized universal Sampling in selecting the respondents of the study. The test of difference between the pretest and posttest scores of the Grade 7 students in Mathematics In this results, it explains how the intervention creates positive changes to the learning performance of the students in Mathematics. It creates big leap on the performance of the students from pretest performance to the posttest performance.

Based from the results shown in table 3, it shows that the results of the pretest and posttest scores revealed that there was an increased from 13.10 to 22.78 which resulted to a computed t value of 2.926 which is greater than the critical value which is equal to 0.318. In connection with the aforementioned data in table 3, it means that there was a significant effect shown of the intervention and in this case the Learners Activity Sheets in increasing the performance of the Grade 7 students which resulted to the rejection of the hypothesis which states that there is no significant difference between the pretest and posttest scores before and after the utilization of the validated and contextualized Learners Activity. The results in table 3 which focuses on the significant difference in the pretest and posttest scores of the Grade 7 students before and after the utilization of the validated Learners activity sheets implied that there were significant effect brought about by the contextualized learners activity sheets to the performance of the learners in Mathematics subjects because of the fact that the results are amazingly increasing. One of the main reasons is that though the Learners activity sheets are mainly crafted by the teachers, they still follow certain standard or norms before it will be released and utilized by the students. this is one of the reasons why students produced excellent outputs. The standardized modules based on the most essential learning competencies plays a big role in learning the difficult subject such as mathematics. Moreover, the utilization of the validated contextualized Learners Activity Sheets is one of the ways or intervention to maintain or improve the skills and performance of the Grade 7 students. One of the good things brought about by the Learners Activity sheets is that the

instructions are being crafted in which it will be easily understood by the common learners thus, they can easily understand the topic and improve their skills.

Keywords — Effectiveness, Learners Activity Sheets, Grade 7 Students, Mathematics

I. Introduction

The restrictions in response to COVID-19 have interrupted schooling with nationwide school closures. Department of Education together with their Regional and Division offices have made concerted efforts to maintain learning continuity during this period, learners have had to rely more on their own resources to continue learning remotely through different distance learning modality options. Teachers also had to adapt to new pedagogical concepts and modes of delivery of teaching, for which they may not have been trained. In particular, learners in the most marginalized groups, who don't have access to digital learning resources or lack the resilience and engagement to learn on their own, are at risk of falling behind.

The Department of Education tried to respond the challenges in pandemic, DepEd Secretary Leonor Magtolis Briones introduced the Basic Education Continuity Plan in time of Covid -19 (BE-LCP) according to her education must continue, whatever the changes and even dangers we confront now and in the future without comprising the health, safety and welfare of the learners, parents, teachers, and department's personnel.

During the implementation of BE- LCP the department face so many challenges, difficulties from the central down to the field levels, there were major adjustments in delivering lessons to the learners, because one of the learning delivery modalities "face-to-face" where learners and teachers are both physically present in the classroom were not allowed.

The result of the survey conducted before the opening SY: 2020-2021 by Ipil National High School, a rural high school that cater learners in both carline and upland Barangays, parents and learners living in two areas chose Modular Distance Learning, a type of Distance Learning Modality that allows learning to use self-learning modules (SLM). No gadgets, unstable or no internet connection, poor network signal because of geographic location and the economic status of the family are the reasons why they chose SLM.

School Year 2020-2021, teachers were feeling stressed in the new normal way of delivering the lesson, how to meet the learners' academic and social needs, with regards to Mathematics, generally learners considered this as the most difficult subject. Teaching and learning Mathematics away from the classroom is a great challenge to both teachers and learners, examples, and solution in the SLM still not enough for the learners to understand, it needs a math teacher to have a thorough explanation. In traditional classroom set up, there is an interaction between the learners and the teachers.

The aim of this study is to determine the impact of Covid-19 to the performance of the Grade 7 students in learning the competencies in Mathematics subject amidst of the pandemic in using the modular distance learning modality considering that teachers are currently experience difficulties on how to prepare and distribute modules, monitor students' learning, time management, innovating teaching strategies,

The researcher focus this study because this is a current situation faced by the different learning institution. In order for me to evaluate whether there is a significant difference in the performance of grade 7 students prior to Covid-19 pandemic and the new normal way of education.

With the aforementioned details, the researcher wanted to know whether COVID 19 has negative or positive impact to the performance of the Grade 7 students in Mathematics.

This study aimed to determine the effectiveness of the Learning Activity Sheets to the performance of the grade 7 students in Mathematics. The findings of the study served as bases for the proposed intervention plan.

Specifically, this study sought to answer the following questions.

1. What is the pretest performance of the Grade 7 students in Mathematics before the provision of the Learning Activity Sheets?
2. What is the posttest performance of the Grade 7 students in Mathematics after the Learning Activity Sheets?
3. Is there a significant difference in the pretest and posttest performance of the Grade 7 students in Mathematics?
4. What Intervention plan can be proposed based on the findings of the study?

Null Hypothesis:

There is no significant difference in the pretest and posttest performance of the Grade 7 students Mathematics.

II. Methodology

Design. This study utilized the quasi-experimental research design to evaluate the impact of covid 19 to the performance of grade 7 students in Mathematics . The results were the basis for an intervention Plan. The researcher utilized universal Sampling in selecting the respondents of the study. Ipil National High School, in the Ormoc City District District 2 in Ipil, Ormoc City, Leyte is the main locale of the study. The Grade 7 students which is composed of 50 total number of learners are the main respondents of the study and the data based on the test scores performances such as pretest and posttest before and after the utilization of the contextualized Learners Activity Sheets.. This research is mainly focused to gather data on: The pretest performance of the Grade 7 students as well as the posttest performance before and after utilization of the nterventios; another focus also is to identify the significant difference of the Grade 7 students performances; Proposed Intervention Plan was crafted based on the findings of the study.

Sampling. There are 50 total number of learners who are included in the study and the primary means of reaching them is through Facebook account, messenger through direct messages, using of cell phones, and conducted limited face to face.

Research Procedure. The researcher formulated the following procedures as guide in gathering of data:

The researcher asked permission from the Schools Division Superintendent as well as to the Public School District Supervisor (PSDS) to conduct a research study in the school.

The researcher immediately conducted an orientation to the teachers who will conduct the test. The research instrument was administered to the identified respondents. Then the teacher used the quality assured learning materials (Summative test questionnaires) to find out the impact of the covid 19 to the performance of the Grade 7 students in Mathematics.

After conducting the pretest and posttest, the researcher be immediately consolidated the data for statistical treatment.

Ethical Issues. The right to conduct the study was strictly adhered through the approval of the Schools Division Office, Public Schools District Supervisor, School principal. Orientation of the respondents both the learners and the teachers was done separately. In the orientation, the issue on, an Informed Consent Form was accomplished prior to the conduct of the study.

Treatment of Data. The Effectiveness of Learners Activity Sheets to the performance of Grade 7 Students which was treated through a weighted mean and T-Test of Mean Difference.

III. Results and Discussion

TABLE 1
PRE-TEST PERFORMANCE OF GRADE 7 IN MATHEMATICS

Score Range	Description	PRETEST	
		Frequency	%
33-40	Excellent	2	2
25-32	Very Good	3	3
17-24	Good	17	19
9-16	Fair	41	47
1-8	Poor	26	29
Total		89	100
Weighted Mean		13.10	Fair

Table 1 shows the pretest performance of the Grade 7 students in Mathematics before the utilization of the contextualized and validated Learners' Activity Sheets. The results are just based

on the stock knowledge of the Grade 7 students in learning the different learning competencies in Mathematics. Prior to the study, the students learned skills from the Self-Learning modules in Mathematics from the Central office and or in the regional office. The Learning materials were being made based on the general perspective. Based from the results given, It shows that the greatest frequency of the Grade 7 students in on the score ranging from 9-16 with the performance description of fair level. In this level of performance, there were 41 total number of respondents or 47 percent. The second top in which the students were mostly concentrated are in the score ranging from 1-8 and described as poor level of performance with 26 total number of respondents or 29 percent. In the good level of performance under the score ranging from 17-24, there were 17 total number of respondents or 19 percent while in the score ranging from 24-32, there were 3 or 3 percent total number of grade 7 students and lastly, in the excellent level with the score ranging from 33-40, there were only 2 grade 7 students or 2 percent.

The results implied that the Grade 7 students really did not find very well on the type of learning materials they are studying considering the result in the test performance in which majority of the students are gaining poor to fair level of performances in the different specific learning competencies in Mathematics. One of the reasons for this results are the students are maybe not comfortable in learning the learning competencies using the Self-Learning Modules though they were prospectively done by the experts but maybe because of the language being use in the modules in which not really understandable to the students. Though we cannot deny the fact that everybody really find hard times in learning the different learning competencies of the subject in the implementation of the Modular Distance Learning Modality. Everyone believes that both teachers, students and parents really experiencing hard times to learn the skills and even deliver the different learning competencies specially in Mathematics subject.

Table 2
POST TEST PERFORMANCE OF GRADE 3 PUPILS IN MATH

Score Range	Description	POST TEST	
		Frequency	%
33-40	Excellent	5	6
25-32	Very Good	24	27
17-24	Good	52	58
9-16	Fair	8	9
1-8	Poor	0	0
Total		89	100
Weighted Mean		22.78	Good

Table 2 shows the posttest performance of the Grade 7 students in Mathematics after the utilization of the contextualized and validated Learners' Activity Sheets on the aforementioned subject. In this time, The results gained by the Grade 7 students are not just stock knowledge but rather the product of the 4 weeks intervention given by the teacher through her effort in crafting the contextualized Learners Activity sheets based on the local perspective of the students based on the experience of the learners as well as to the parents considering the budget of lessons being given to both parents and students in order to identify the level of performance of the students after each of the competency is being delivered.. During and after the study or giving of interventions, the students learned skills from the Learners activity sheets. The Learning materials were being made are based from the specific perspective of the teachers after conducting diagnostic examination of the students. Based from the results given, It shows that the greatest frequency of the Grade 7 students is on the score ranging from 17-24 with the performance description of good level. In this level of performance, there were 52 total number of respondents or 58 percent. The second top in which the students were mostly concentrated are in the score ranging from 25-32 and described as very good level of performance with 24 total number of respondents or 27 percent. In the excellent level of performance under the score ranging from 33-40, there were 5 total number of respondents or 6 percent while in the score ranging from 9-16, there were 8 or 8 percent total number of grade 7 students and lastly, none of the Grade 7 students gained in the poor level of performance.

The results implied that the Grade 7 students really did a good job or performance in learning the different learning competencies in mathematics using the contextualized learners activity sheets which are being crafted based on the students capacity. They are most likely motivated to learn the subject and really find very well on the type of learning materials they are studying considering the result in the posttest performance which is equal to 22.78 and considered as good level of performance . One of the reasons for this positive results of the Garde 7 students is that they can easily grasp the idea portraying by the teacher through the contextualized learning materials which they find it comfortable in learning the learning competencies using the Self-Learning Modules. Though we cannot deny the fact that not everybody really gained good score and others really find hard times in learning the different learning competencies of the subject in the implementation of the Modular Distance Learning Modality but at least one way or the other, it improves the learning performance of the Grade 7 students. Everyone believes that both teachers, students and parents really find the contextualized learners activity sheets easy to learn by the students.

Table 3
Test of Difference Between the Scores in the Pre-test and Post-test of Grade 7 in Math

Aspects	Test Scores		Computed T	Critical T	Decision	Interpretation
	Pre	Post				
Grade 7 Math	13.10	22.78	2.926	0.318	Reject H ₀	Significant

Table 3 presents the test of difference between the pretest and posttest scores of the Grade 7 students in Mathematics. In this result, it explains how the intervention creates positive changes to the learning performance of the students in Mathematics. It creates a big leap on the performance of the students from pretest performance to the posttest performance.

Based from the results shown in table 3, it shows that the results of the pretest and posttest scores revealed that there was an increase from 13.10 to 22.78 which resulted to a computed t value of 2.926 which is greater than the critical value which is equal to 0.318. In connection with the aforementioned data in table 3, it means that there was a significant effect shown of the intervention and in this case the Learners Activity Sheets in increasing the performance of the Grade 7 students which resulted to the rejection of the hypothesis which states that there is no significant difference between the pretest and posttest scores before and after the utilization of the validated and contextualized Learners Activity. The results in table 3 which focuses on the significant difference in the pretest and posttest scores of the Grade 7 students before and after the utilization of the validated Learners activity sheets implied that there were significant effects brought about by the contextualized learners activity sheets to the performance of the learners in Mathematics subjects because of the fact that the results are amazingly increasing. One of the main reasons is that though the Learners activity sheets are mainly crafted by the teachers, they still follow certain standards or norms before it will be released and utilized by the students. This is one of the reasons why students produced excellent outputs. The standardized modules based on the most essential learning competencies play a big role in learning the difficult subject such as mathematics. Moreover, the utilization of the validated contextualized Learners Activity Sheets is one of the ways or interventions to maintain or improve the skills and performance of the Grade 7 students. One of the good things brought about by the Learners Activity sheets is that the instructions are being crafted in which it will be easily understood by the common learners thus, they can easily understand the topic and improve their skills.

IV. Conclusion

Based on the findings of the study, it showed that the Learners activity sheets are significantly effective in increasing or maintaining the performance of the Grade 7 students in the different learning competencies in Mathematics. Moreover, the crafting of Self-Learning Modules

in accordance to the student's perspective really help in motivating the students to learn and improve their skills.

V. Recommendations

1. The Intervention plan should be utilized by the mathematics teachers.
2. That contextualized and validated Learners Activity Sheets should be utilized.
3. The School Principal together with the Master Teachers should conduct validation of the Learners activity sheets basing the Most Essential Learning Competencies in order to quality assure the materials because it will be utilized by the students.
4. The School Principal together with the Learning Resource Team should conduct In-Service Training on how to craft contextualized SLMs based on the needs of the learners specially those learners.

Furthermore, the researcher allows future researchers to conduct the same study to verify the effectiveness of the learners activity sheets to the performance of the pupils.

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