WORKTEXT AS SUPPLEMENTAL MATERIAL IN IMPROVING MATHEMATICS' PERFORMANCE OF GRADE 9 STUDENTS

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Abstract

The study was primarily concerned with the effect of Worktext as supplemental materials in improving mathematics' performance of grade 9 students from three schools; Sto. Tomas Integrated High School (STIHS), Dayap National Integrated High School (DNIHS) and Santa Cruz Integrated National High School (SCINHS).

The researcher identified the following: the level of perception of learners from three schools to the supplemental worktext in terms of objective, content and activity; the level of student's attitude in distance learning using the supplemental worktext in terms of self-learning and time-management; the level of Math performance of learners from three schools with and without the use of supplemental worktext. The researcher also determined the difference in the Mathematics performance of learners from three schools with and without the use of supplemental worktext and the perception of learners to the supplemental worktext elements and their attitude towards distance learning significantly relates to their Mathematics performance upon using the supplemental worktext.

Based on the summary of findings mentioned shows that worktext as supplemental material has a significant effect to the performance of the students. The significant relationship of the content of worktext and attitudes has no significant relationship with the performance of students.

It was recommended that Mathematics Teachers may also develop and design their supplementary materials for their students which they think would be of great help for their students to develop and enhance their mathematics performance. It is also recommended to ask students about their perceptions of the materials to be implemented; this will greatly assist teachers in considering their attitudes when developing a material.

Keywords: Worktext, Supplemental material, Mathematics performance

1. Main Text

Introduction

Distance learning has emerged as a viable option for guaranteeing that education can continue in the face of a pandemic. Modular (Printed), Modular (Digitized), Online, Educational TV, Radio-Based Instruction, Home Schooling, and Blended Learning were some of the learning modes offered by the Department of Education.

The most widely utilized learning delivery modality in the Philippines is modular distance learning, in which students acquire lessons using self-learning modules. Students, on the other hand, struggle to master mathematical lessons on their own using this modality (Insorio & Olivarez, 2021).

Students studied their lessons at home using the printed modules, many factors can hinder them, and one of these factors is the lack of books and other materials. This time of the pandemic, the researcher realized that learners might not have enough resources at home. Teachers' assistance is definitely needed, especially for students enrolled in printed modular distance learning since they do not have enough devices to utilize for online searching, internet access, or data loading furthermore, some of the signal sites are poor.

Supplementary materials are materials that is related to the regular materials that can be use as academic support (Dewi, 2016). To assist students in learning, teachers may provide supplemental materials such as digital or printed materials, depending on the students' preferred learning modalities.

Background of the Study

Distance learning delivery must be improved by improving communication between teachers and students, actively engaging parents/guardians in education, improving the quality of paper modules, providing materials in local languages for early graders, and increasing awareness of complementary learning platforms (Cho et al., 2021). By offering more resources, children will benefit, and it may serve as a means of communication between parents and students. The teacher may offer lecture notes as well as a guide for learners on how to complete the tasks outlined in the module or in the Learners Packet (Leap) provided.

According to Anzaldo (2021), some parents are having difficulty instructing their children at home, particularly those in upper grade and secondary students, for whom the lessons are more intense complex; there are also parents who cannot read and write, making it more difficult for them to teach their children.

As stated on DepEd Order No. 35, s. 2016 entitled "The Learning Action Cell as a K to 12 Basic Education Program School-Based Continuing Professional Development Strategy for the Improvement of Teaching and Learning" under Rational section 4 ". Different educational institutions and online platforms and also the Department of Education offers a variety of seminars through online platforms tackling different approaches, strategies and methodologies to address the urgent needs of continuing educations. Teachers as the facilitator of learning also undergoes different seminars virtually to gained different new strategies for the new normal set-up with limited face to face.

The researcher considered conducting a study using work text as supplemental material; it is a teacher's response to students who are having difficulty solving learning activities using the module only. The supplemental material will give an additional information regarding to the topic or lessons in mathematics 9. The study was conducted in three schools, two schools located at the Calauan district: Sto Tomas Integrated High School, which has a population of seven hundred forty-one (741) junior high school students and two hundred and twenty-two (222) senior high school students; Dayap National Integrated High School, which has a population of seven hundred sixty-nine (769) junior high school students and two hundred thirty-four (234) senior high school students; and one school from Santa Cruz District, Santa Cruz Integrated National High School, which has a population of six hundred fifty-nine (659) junior high school students and three hundred seventy-one (371) senior high school students that offered Modular Distance Learning.

Statement of the Problem

The purpose of the study was to determine the effect of supplemental worktext to the mathematics' performance of Grade 9 students in Sto.Tomas Integrated High school and Dayap National Integrated High School in Calauan, Laguna and Santa Cruz Integrated National High School in Santa. Cruz Laguna S.Y.2021-2022, specifically, it sought to answer the following questions:

1. What is the mean level of perception of learners from three schools to the supplemental worktext in terms of the following characteristics;
    1.1. Objective;
    1.2. Content; and
    1.3. Activity.
2. What is the mean level of student's attitude in distance learning using the supplemental worktext in terms of:
    2.1. Self-learning; and
    2.2. Time-management.
3. What is the mean level of Math performance of learners from three schools with and without the use of supplemental worktext?
4. Is there a significant difference in the Mathematics performance of learners from three schools with and without the use of supplemental worktext?
5. Does the perception of learners to the supplemental worktext elements and their attitude towards distance learning significantly relates to their Mathematics performance upon using the supplemental worktext?

Research Methodology

The research design used in this study was experimental design. According to Frey (2018), a posttest-only control group design is a research design in which at least two groups are used, one of which does not receive a treatment or intervention, and data on the outcome measure is collected after the treatment or intervention. The control group is the group that does not receive the desired treatment or intervention. The general procedure for this design is as follows: (a) two or more groups are formed; (b) the treatment or intervention is administered; (c) data are collected after the treatment or intervention is administered, typically using a behavioral, cognitive, or psychological assessment; and (d) the data are compared between groups to determine whether the treatment or intervention was effective.

The researcher found the method useful in getting the relevant information about the effect of supplemental worktext in improving mathematics' performance based on the post-test results of two groups. Comparing test results of two groups with and without the worktext.

The study was carried out at Sto. Tomas Integrated High School (STIHS), Dayap National Integrated High School (DNIHS), and Santa Cruz Integrated National High School (SCINHS). This study included randomly selected grade 9 students, with each school having 30 respondents. There were two groups of samples, with 15 students using supplemental worktext and another 15 not using supplemental worktext. The total number of respondents was 90. For this purpose, the researcher used the purposive sampling technique to gather the sample respondents. Campbell et al., (2020) purposive sampling has a long developmental history and there are as many views that it is simple and straightforward as there are about its complexity. The reason for purposive sampling is the better matching of the sample to the aims and objectives of the research, thus improving the rigor of the study and trustworthiness of the data and results. Four aspects to this concept have previously been described: credibility, transferability, dependability and confirmability. This greatly helped the researcher in conducting the study since groups were needed to be the experimental.

The researcher compiled all the instruments and gather all the needed data. The data were summarized by the researcher and it were given to her statistician for treatment. After that, tables were to be prepared by the researcher and were analyzed to broaden the knowledge on the main focus of the study.

The data gathered will be subjected to statistical treatment to test the hypothesis and for analysis and interpretation using the tools below:
In response to the analysis of the data on the elements of supplemental worktext and attitudes of students, the mean and standard deviation were used. It is also use to determine the level of mathematics performance of students with and without the aid of supplemental worktext.

T-test was used to determine if there is a significant difference between the test result of students who used supplemental worktext and those who did not used.

Pearson-R was used in checking the significant relationship of the supplemental worktext elements and their attitude towards distance learning to their Mathematics performance upon using the supplemental worktext.

Results and Discussion

1. **Level of Students' Perception in the Quality of Supplemental Worktext of three schools**

Table 1. Students' Perception in the Quality of Supplemental Worktext of three schools in terms of Objectives

SCHOOL:	STIHS			DNIHS			SCINHS		
Statement	M	SD	Remarks	M	SD	Remarks	M	SD	Remarks
1. Includes measurable objectives.	4.67	0.49	Strongly Agree	4.53	0.52	Strongly Agree	4.60	0.51	Strongly Agree
2. Show clarity of the lesson objectives.	4.60	0.51	Strongly Agree	4.67	0.49	Strongly Agree	4.73	0.46	Strongly Agree
3. Provide clear examples of what I will be able to perform	4.53	0.52	Strongly Agree	4.53	0.64	Strongly Agree	4.53	0.52	Strongly Agree
4. Presents the intended learning objective that can easily understand.	4.47	0.52	Strongly Agree	4.40	0.51	Strongly Agree	4.47	0.52	Strongly Agree
5. Guides me in attaining intended Most essential learning Competency of the lesson	4.47	0.52	Strongly Agree	4.47	0.52	Strongly Agree	4.53	0.52	Strongly Agree
Overall Mean	4.55			4.52			4.57		
Standard Deviation	0.51			0.53			0.50		
Verbal Interpretation	Very High			Very High			Very High		

Legend:
Scale	*Range*	*Remarks*	*Verbal Interpretation*
5	*4.20-5:00*	*Strongly Agree*	*Very High*
4	*3.20-4.19*	*Agree*	*High*
3	*2.40-3.19*	*Moderately Agree*	*Moderate*
2	*1.80-2.39*	*Disagree*	*Low*
1	*1.00-1.79*	*Strongly Disagree*	*Very Low*

Overall, the level of perception of students in the quality of the supplemental worktext in terms of objectives from STIHS gained a mean score of 4.55 and was verbally interpreted as Very High and standard deviation of 0.51 implied that the data were in low dispersion, which means reliable. As per students in DNIHS, it gained a mean score of 4.52 and a standard deviation of 0.53 and was remarked as Very High and data were in low of dispersion, which means reliable. In addition, for the students in SCINHS, the overall mean of 4.57 and was remarked as Very High and 0.50 as standard deviation implies the data were also low in dispersion, which means reliable. This implies that the supplemental worksheet assessed by the students offers quantifiable phases with quality that a student will go through, as well as what is required to attain the desired objective. Objectives underline the importance of guiding students toward mastery of the standards' content knowledge and abilities.

Table 2. Students' Perception in the Quality of Supplemental Worktext of three schools in terms of Content

SCHOOL:	STIHS			DNIHS			SCINHS		
STATEMENT	M	SD	REMARKS	M	SD	REMARKS	M	SD	REMARKS
1. Provide sufficient lesson information	4.53	0.52	Strongly Agree	4.40	0.51	Strongly Agree	4.73	0.46	Strongly Agree
2. Assist me in meeting the learning objectives	4.60	0.51	Strongly Agree	4.47	0.52	Strongly Agree	4.73	0.46	Strongly Agree
3. Give detailed examples of problems	4.67	0.49	Strongly Agree	4.60	0.63	Strongly Agree	4.67	0.49	Strongly Agree
4. Gives me a well-defined concept	4.73	0.46	Strongly Agree	4.40	0.63	Strongly Agree	4.47	0.52	Strongly Agree
5. Use a method to address difficulties	4.60	0.51	Strongly Agree	4.53	0.52	Strongly Agree	4.60	0.51	Strongly Agree
Overall Mean	4.63			4.48			4.64		
Standard Deviation									
Verbal Interpretation	**0.50**			0.56			0.49		
	Very High			**Very High**			**Very High**		

Legend:
Scale	Range	Remarks	Verbal Interpretation
5	4.20-5:00	Strongly Agree	Very High
4	3.20-4.19	Agree	High
3	2.40-3.19	Moderately Agree	Moderate
2	1.80-2.39	Disagree	Low
1	1.00-1.79	Strongly Disagree	Very Low

Table 2 illustrates the students' perception in the quality of supplemental worktext in terms of Content.

The level of perception of students in the quality of the supplemental worktext in terms of content from STIHS gained a mean score of 4.63 and was verbally interpreted as Very High and standard deviation of 0.50 implied that the data were in low dispersion, which means reliable. As per students in DNIHS, it gained a mean score of 4.48 and a standard deviation of 0.56 and was remarked as Very High and data were in low of dispersion that means reliable. In addition, for the students in SCINHS, the overall mean of 4.64 and was remarked as Very High and 0.49 as standard deviation implies the data were also low in dispersion, which means highly reliable. This implies that the supplemental worksheet offers comprehensive and informative content that was useful in their lessons.

Table 3. Students' Perception in the Quality of Supplemental Worktext of three schools in terms of Activity

SCHOOL: STATEMENT	STIHS M	SD	REMARKS	DNIHS M	SD	REMARKS	SCINHS M	SD	REMARKS
1. Require me a good deal of mental activity to think.	4.67	0.49	Strongly Agree	4.67	0.49	Strongly Agree	4.67	0.49	Strongly Agree
2. Concentrate on the relevance of what I'm learning.	4.73	0.46	Strongly Agree	4.80	0.41	Strongly Agree	4.73	0.46	Strongly Agree
3. Has sufficient data to make it answerable	4.80	0.41	Strongly Agree	4.73	0.46	Strongly Agree	4.60	0.51	Strongly Agree
4. Encourage student-centered learning	4.60	0.51	Strongly Agree	4.47	0.52	Strongly Agree	4.47	0.52	Strongly Agree
5. Includes activities similar to those shown in the example	4.67	0.49	Strongly Agree	4.53	0.64	Strongly Agree	4.53	0.52	Strongly Agree
Overall Mean Standard Deviation Verbal Interpretation	4.69 0.47 Very High			4.64 0.50 Very High			4.60 0.50 Very High		

Legend:

Scale	Range	Remarks	Verbal Interpretation
5	4.20-5:00	Strongly Agree	Very High
4	3.20-4.19	Agree	High
3	2.40-3.19	Moderately Agree	Moderate
2	1.80-2.39	Disagree	Low
1	1.00-1.79	Strongly Disagree	Very Low

Table 3 illustrates the students' perception in the quality of supplemental worktext in terms of Activity.

As for the summary of responses of students in Sto. Tomas Integrated High School, Dayap National Integrated High School and Santa Cruz Integrated National High School rated the activity in supplemental worktext with the overall means of 4.69, 4.64, 4.60 respectively and were all verbally interpreted as Very High. The standard deviations of 0.47, 0.50 and 0.50 can be concluded that the data were in the range of very low and low of dispersion which means data were reliable. This means that the worktext provided a very high activity to assist learners in focusing on and applying learning.

2. Student's attitude in distance learning using the supplemental worktext

Table 4 illustrates the students' attitude using supplemental worktext in terms of self-learning.

Table 4. Students' Attitude using the Supplemental Worktext in three schools in terms of Self-learning

SCHOOL: STATEMENT	STIHS M	SD	REMARKS	DNIHS M	SD	REMARKS	SCINHS M	SD	REMARKS
1. Give more examples that are simple to comprehend.	4.73	0.46	Strongly Agree	4.80	0.41	Strongly Agree	4.80	0.41	Strongly Agree
2. Assist me in my learning process.	4.73	0.46	Strongly Agree	4.87	0.35	Strongly Agree	4.93	0.26	Strongly Agree
3. Allow me to figure things out on my own.	4.80	0.41	Strongly Agree	4.93	0.26	Strongly Agree	4.93	0.26	Strongly Agree

	M	SD	REMARKS	M	SD	REMARKS	M	SD	REMARKS
4. Instruct me on what to do next	4.73	0.46	Strongly Agree	4.60	0.51	Strongly Agree	4.67	0.49	Strongly Agree
5. Selected activities for independent learning	4.67	0.49	Strongly Agree	4.53	0.52	Strongly Agree	4.53	0.52	Strongly Agree
Overall Mean	4.73			4.75			4.77		
Standard Deviation	0.46			0.41			0.39		
Verbal Interpretation	**Very High**			**Very High**			**Very High**		

Legend:

Scale	*Range*	*Remarks*	*Verbal Interpretation*
5	*4.20-5:00*	*Strongly Agree*	*Very High*
4	*3.20-4.19*	*Agree*	*High*
3	*2.40-3.19*	*Moderately Agree*	*Moderate*
2	*1.80-2.39*	*Disagree*	*Low*
1	*1.00-1.79*	*Strongly Disagree*	*Very Low*

As for the summary of responses of students' attitudes towards supplemental worktext in terms of self-learning in Sto. Tomas Integrated High School, Dayap National Integrated High School and Santa Cruz Integrated National High School with the overall means of 4.73, 4.75, 4.77 respectively and were all verbally interpreted as Very High. The standard deviations of 0.46, 0.41 and 0.39 can be concluded that the data were all in very low of dispersion which means data were highly reliable.

Table 5. Students' Attitude using the Supplemental Worktext in terms of Time-management

SCHOOL:	STIHS			DNIHS			SCINHS		
STATEMENT	M	SD	REMARKS	M	SD	REMARKS	M	SD	REMARKS
1.I can budget my time per subject	4.93	0.26	Strongly Agree	4.73	0.46	Strongly Agree	4.80	0.41	Strongly Agree
2.I can prioritize task that need more time to accomplish	4.87	0.35	Strongly Agree	4.67	0.49	Strongly Agree	4.87	0.35	Strongly Agree
3.I can eliminate activities that cannot contribute to my goals.	4.87	0.35	Strongly Agree	4.53	0.52	Strongly Agree	4.67	0.49	Strongly Agree
4. I can answer my learning tasks on time.	4.73	0.46	Strongly Agree	4.67	0.49	Strongly Agree	4.73	0.46	Strongly Agree
5. I lessen my time to understand the lessons using the worktext.	4.67	0.49	Strongly Agree	4.40	0.51	Strongly Agree	4.67	0.49	Strongly Agree
Overall Mean	4.81			4.60			4.75		
Standard Deviation	0.38			0.49			0.44		
Verbal Interpretation	Very High			Very High			Very High		

Table 5 illustrates the students' attitude using supplemental worktext in terms of time-management.

As for the summary of responses of students' attitudes towards supplemental worktext in terms of time-management in Sto. Tomas Integrated High School, Dayap National Integrated High School and Santa Cruz Integrated National High School with the overall means of 4.81, 4.60, 4.75 respectively and were all verbally interpreted as Very High. The standard deviations of 0.38, 0.49 and 0.44 can be concluded that the data were all in very low of dispersion that means data were highly reliable. This implied that worktext gave a big help for the students in managing their time for their learning.

3. **Level of Math performance of learners from three schools with and without the use of supplemental worktext.**

This section was consisted of the table about the math performance of three schools with and without worktext.

Table 6. Level of Math performance of learners from three schools with and without the use of supplemental worktext.

School	Without Worktext			With Worktext		
	Mean	SD	Verbal Interpretation	Mean	SD	Verbal Interpretation
STIHS	13.13	3.27	Satisfactory	22.40	2.16	Very Satisfactory
DNIHS	14.67	3.62	Satisfactory	22.87	2.10	Very Satisfactory
SCINHS	15.87	2.85	Satisfactory	21.47	2.03	Very Satisfactory

Legend:
24.00-30.00	*Outstanding*
18.00-23.99	*Very Satisfactory*
12.00-17.99	*Satisfactory*
6.00-11.99	*Fairly Satisfactory*
Below-5.99	Poor Satisfactory

From the results of the performance test of students in Sto. Tomas Integrated High School (STIHS), students without the worktext got the mean score of 13.13 and standard deviation of 3.27 and were verbally interpreted as satisfactory. Students with supplemental worktext got the mean score of 22.40 and standard deviation of 2.16 and were verbally interpreted as very satisfactory.

In the test, results from Dayap National Integrated High School (DNIHS) the students without the supplemental worktext got the mean scores of 14. 67 and standard deviation of 3.62 and were verbally interpreted as satisfactory, while the students with the supplemental worktext gained 22.87 mean score and standard deviation of 2.10 and were verbally interpreted as very satisfactory.

Santa Cruz integrated National High Schools students took also the performance test and the results were 15.87 mean score and standard deviation of 2. 85 verbally interpreted as satisfactory performance of students without supplemental worktext, on the other hand 21.47 mean scores and 2.03 standard deviations gained by the students with the aid of supplemental worktext implied a very satisfactory performance.

The higher mean scores of students with the aid of supplemental worktext implied that supplemental worktext helped in increasing mathematics performance of students.

4. **Significant Difference in the Math Performance of Learners from Three Schools With and Without the Use of Supplemental Worktext**

Below are the major findings for the difference of mathematical performance of students with and without the use of worktext as supplemental material. The results were tabulated and shown in the table.

Table 7. Significant difference in the Math performance of learners from three schools with and without the use of supplemental worktext

		Mean	t-Value	t Critical	p-value	Decision
STIHS	**Without Worktext**	13.13				
			-9.15	**2.06**	**0.00**	**Significant**
	With Worktext	22.40				

DNIHS	**Without Worktext**	14.67				
			-7.59	**2.07**	**0.00**	**Significant**
	With Worktext	22.87				
SCINHS	**Without Worktext**	15.87				
			-6.20	**2.06**	**0.00**	**Significant**
	With Worktext	21.47				

The table shows that computed t-values of -9.15, -7.59 and -6.20 were greater than the t-critical values of 2.06, 2.07 and 2.06 having p-value of 0.00, which is lesser than alpha 0.05 level of significance, signifies that there is a significant difference between the performance of the students with and without the use of supplemental worktext of the three schools.

As reflected in the mean scores of students without worktext in three schools were 13.13, 14.67 and 15.87, while the mean scores of students with supplemental worktext were 22.40, 22.87 and 21.47 respectively. Since there is a significant difference between mean scores of without worktext and with worktext students, the hypothesis was not supported. It means the There is a significant difference in the Mathematics performance of learners from three schools with and without the use of supplemental worktext.

5. **Correlation between the supplemental worktext elements and their attitudes to the Math performance upon using the supplemental worktext**

This section shows the tables consisted of the correlation of the worktext elements to the mathematics performance, and the attitudes towards the use of supplemental worktext to the mathematics performance of students in three schools

Table 8. Correlation between the supplemental worktext elements and their Math performance upon using the supplemental worktext

	WORKTEXT ELEMENTS	r-value	p-value	Decision
STIHS	Objective	0.175	0.533	Not Significant
	Content	-0.173	0.538	Not Significant
	Activity	0.025	0.932	Not Significant
DNIHS	Objective	-0.019	0.949.	Not Significant
	Content	0.237	0.395	Not Significant
	Activity	0.304	0.271	Not Significant
SCINHS	Objective	-0.048	0.865	Not Significant
	Content	0.110	00.695	Not Significant
	Activity	-0.093	.742	Not Significant

Table 8 presents the correlation between the elements of worktext and math performance of students of three schools. Specifically, it presents the relationship of math performance across the Objectives, Content, and Activity.

On the table under the worktext elements of Sto. Tomas Integrated High School (STIHS) in terms of Objective (r= 0.175, p= 0.533), Content (r = -0.173, p=0.538) and Activity (r= 0.025, p=0.9320). Mathematics performance has a positive relationship to the objective and activity.

The second school which was DNIHS the worktext elements in terms of Objective (r= -0.019, p= 0.949.), Content (r = - 0. 237, p=0. 395) and Activity (r= 0. 304, p=0. 271). Activity has a positive relationship to the mathematics performance.
In addition, in the Santa Cruz Integrated National High School (SCINHS) the worktext elements in terms of Objective (r= -0.019, p= 0.949.), Content (r = -0. 237, p=0. 395) and Activity (r= 0. 304, p=0. 271). Content has a positive relationship to the mathematics performance.

The p values that are exceeding that of the significance alpha, hence the notion "not significant". There was no observed significant relationship between the math performances of students in Sto. Tomas Integrated High School, Dayap National Integrated High School and Santa Cruz Integrated National High School relative to the Objective, Content and Activity in worktext.

Table 9 presents the results of correlation test between the worktext elements and the mathematics performance of students. As shown in the table, mathematics performance had a positive correlation to the self-learning and time management

Table 9. Correlation between students' attitude towards learning to their Math performance upon using the supplemental worktext

	ATTITUDES	r-value	p-value	Decision
STIHS	Self-learning	0.336	.219	Not Significant
	Time-management	0.403	.137	Not Significant
DNIHS	Self-learning	0.267	.336	Not Significant
	Time-management	0.337	.219	Not Significant
SCINHS	Self-learning	0.104	.712	Not Significant
	Time-management	0.393	.148	Not Significant

From the findings above, we can infer that at 0.05 level of significance, the null hypothesis "The perception of learners to the supplemental worktext elements and their attitude towards distance learning has no significant relationship to their Mathematics performance upon using the supplemental worktext" is accepted.

Summary of Findings

Based on the data presented, analyzed, and interpreted the following findings are as followed:

Objective. Sto. Tomas Integrated High School (STIHS), Dayap National Integrated High School (DNIHS) and Santa Cruz Integrated National High School (SCINHS) rated objectives as very high quality. This implied given objective helped students in leading the student's achievement.

Content. The content of supplemental worktext rated by the students, from Sto. Tomas Integrated High School (STIHS), Dayap National Integrated High School (DNIHS), and Santa Cruz Integrated National High School (SCINHS as very high. This means that the content included in the worktext gave the support needed information and data for the students.

Activity. Sto. Tomas Integrated High School (STIHS), Dayap National Integrated High School (DNIHS) and Santa Cruz Integrated National High School (SCINHS) rated as very high quality in terms of the activity in the supplemental worktext.

Self-learning. The verbal interpretations of very high based on student's perception for self-learning means that the students in three schools agreeing that the worktext promoted self-learning.

Time-management. In the time management the mean scores of the three schools were all verbally interpreted as very high, this implied that students from three schools have concluded that in using supplemental worktext, students can manage time.

Students in three schools gained a very satisfactory performance based on the mean scores using supplemental worktext, while a satisfactory performance without the aid of the worktext.

The students as respondents in three schools had a significant difference in math performance between learners with worktext and learners without worktext. the increased mean scores implied the supplemental worktext has a large effect on the improved performance of the students.

In the three schools, the relationship in objectives, content and activity to the math performance were all not significant.

Conclusion

Based on the finding of the study, the following conclusions were drawn:

The supplementary worktext in terms of Objective, Content and Activity resulted to a Strongly Agree. As a result, according to the study, students accept the quality of worktext as supplemental material in terms of objectives, content, and activity.

The visible difference of mean scores of students with and without worktext were evident. The researcher concludes that the worktext as supplemental material has a significant effect on students' mathematics performance. The hypothesis that there is no significant difference in the Mathematics performance of learners from three schools with and without the use of supplemental worktext was rejected. The perception of learners to the supplemental worktext elements and their attitude towards distance learning has no significant relationship to their Mathematics performance upon using the supplemental worktext was also accepted, since the results were all not significant

Recommendations

Based on the results and conclusions of the study, the following recommendations are hereby suggested:

1. Mathematics Teachers may also develop and design their supplementary materials for their students which they think would be of great help for their students to develop and enhance their mathematics performance.

2. It is also recommended to ask students about their perceptions of the materials to be implemented; this will greatly assist teachers in considering their attitudes when developing a material.

3. The researcher also proposes that students participate more actively in the research because it will benefit everyone and will help them improve their performance also, teachers should emphasize the value of complete cooperation to students.

4. The researcher also suggests that the DepEd officials and school administrators may encourage and support teachers in creating teacher-made materials that will be a highly helped for the quality education.

5. Future researcher may be used this study as a continuous project in finding the relationships of supplemental worktext to the performance of students.

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