

Effects of Thematic Instruction in Grade Eight English, Science and Mathematics to Integrative Performance Task

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Abstract:- Recent and relevant studies had proved that most of the students struggled in their three major subjects: English, Mathematics and Science. Aside from their poor performance based on the various national and internal tests like the Programme for International Student Assessment (PISA) and Trends in International Mathematics and Science Study (TIMSS), it had been observed also that they had difficulty in doing their performance tasks because they commonly do one performance task per subject. The number of performance task they are doing per quarter are bombarding the students. The rationale of this study is to apply the thematic instruction in English, Math and Science in conducting the lesson and in creation of an integrative performance task and test its effectivity for the experimental group. The study used descriptive quantitative design. A pretest and posttest was given to them to test the effectivity of applying the thematic instruction in teaching. A survey questionnaire was also given to know their perceptions on the level of effectivity of the thematic instruction in an integrative performance task. The result shows that there is a significant difference between the result of the pretest and posttest where a significant improvement was seen. Furthermore from the result of the survey, there is a positive perception on the level of effectivity of the thematic instruction in the conduct of the integrative performance task.

Keywords:- Education, Teaching, Thematic Instruction, Integrative Performance Task, Descriptive Quantitative Design.

I. INTRODUCTION

For the first time, the Philippines joined the Programme for International Student Assessment (PISA) of the Organization for Economic Co-operation and Development (OECD) in 2018, as part of the Quality Basic Education reform plan and a step towards globalizing the quality of Philippine basic education. However, based on the result, released on December 3, the 2018 PISA results revealed that the Philippines scored 353 in Mathematics, 357 in Science, and 340 in Reading, all below the average of participating OECD countries. Rank 79th, the lowest in reading comprehension and 2nd to the lowest in Science and Math. Likewise, another test that will prove a low performance in these subjects is the latest result of the

Trends in International Mathematics and Science Study 2019 (Timss) by the International Association for the Evaluation of Educational Achievement where Philippines got an average scale score of 249 in science and 297 in math, ranking last in both tests.

Moreover, based on the observation of students' outputs and performance in the previous school year, a struggle in the submission was seen that resulted to poor performance. Also, with a great number of tasks, students tend to neglect the other subjects.

The poor performance from the three major subjects as mentioned in the latest PISA results in 2018 and other tests led the researchers to conduct the study. The researchers believe that there is significant need to improve the students' performance to those major subjects. There is really a big gap that must be addressed urgently.

Thematic instruction has been proved to be effective in various research. As concluded in the study of Nurlaela (2018), thematic instructional model was more effective than conventional instruction and thematic instructional model had a capacity in accommodating different learning styles and reading abilities. Thus, the researchers would like to conduct this study to measure its effectiveness and the harmonized assessment in the tasks of the students. As stipulated in DepEd Order No.31 s.2020, in designing assessment like Performance task, "Teachers are advised to collaboratively design and implement performance tasks that integrate two or more competencies within or across subject areas". Furthermore, as noted in the DepEd order, one of the characteristics of a performance task as given by Mctighe, et.al (2020) is that "It should be integrative with other learning areas and with 21st century skills". He also emphasized that "meaningful learning is achieved when the learners are assessed in a way that they are encouraged to see how learning areas are interconnected".

In line with this study, the researchers seek to apply the thematic instruction in English, Math and Science in conducting the lesson and in creation of an integrative performance task and test its effectivity for the experimental group. This is to navigate and maximize thematic instruction and integrative performance tasks as way to improve the students' performance in those subjects.

The result of this study may lead to the integration of various subjects that can be thematized. This will also lead to the collaborative academic exchange of the teachers. A walkthrough also to the learning competencies that may be aligned with other disciplines can be done. If proven effective also, an integrative performance tasks may be adopted and continued as part of the innovation in the constructing and forming assessment.

➤ *Research Question*

This study aims to determine the effect of using checking and analysis software applications in the school testing mechanism. Specifically, it aims to answer the following question.

- What is the result of the students’ performance during the pretest?
- What is the students’ performance during the post-test?
- What is the level of effectivity of the use of thematic instruction in an integrative performance task as perceived by the teachers and the students?
- Is there a significant difference between the students’ pretest and post-test after taking thematic instruction in an integrative performance tasks in ENSCIMA?

➤ *Scope and Limitation of the Study*

The research was conducted among the selected Grade 8 students. A particular section was chosen to become the representative participants in the study. The sectioning in Grade 8 follows a heterogenous class so there is no bias in choosing the section. There is a total of 40 students who participated in the research and their teachers in English , Mathematics and Science.

A pretest and post test was constructed and administered to the students. Moreover, a survey questionnaire on the level of effectivity of thematic instruction in the integrative performance task was given to both respondents.

The researcher limited the study on the effectiveness of the application of thematic instruction in the three major areas: English, Math and Science and conducting an integrative performance task to improve the level of retention and the students’ performance to those subjects.

➤ *Framework*

The researchers used the I-P-O (Input, Process, Output) conceptual framework to illustrate the paradigm of the study.

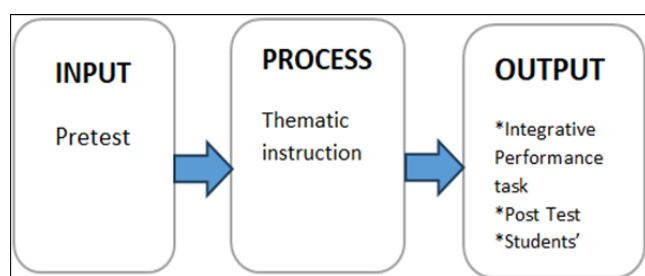


Fig 1 Conceptual Framework of the Study

The framework shows how the use of thematic instruction in English, Science and Mathematics can contribute to the attainment of the integrative performance task. Moreover, a pretest and posttest will also help in determining the effectiveness of using thematic instruction in teaching as well as in learning the lesson.

II. METHODOLOGY

This chapter described the research design, description of participants, sampling and procedure on collecting information on the effect of thematic instruction in English, Science and Mathematics to Integrative Performance task. This was followed by a discussion about how the data was analyzed.

➤ *Research Design*

The study used a descriptive quantitative design. The design involved one group of students. The study was administered during the second quarter of the school year 2022-2023.

➤ *Respondents of the Study*

The respondents of this research were Grade 8 students from one section in Majada In Integrated School. The study was administered during the second quarter of the school year 2022-2023.

The participants were selected using purposive sampling. A total of thirty-five (40) students and three (3) teachers (English , Science, Mathematics teachers) were selected and participated in the study.

➤ *Research Instrument*

A pre test and post test was administered before and after the conduct of the thematic instruction and integrative performance task. The test is consisted of topics from the second quarter that were thematized.

A questionnaire was also administered to the students and teachers regarding their perception and reflection on the utilization of thematic instruction in their integrative performance task.

➤ *Data Gathering*

Three sets of data were collected. The first data was the pretest scores of the students. The second was the perception of the students and teachers on the effectiveness of thematic instruction to the integrative performance task. The last data was the post test scores of the students that will be compared to the pretest to see if there is a significant changes and improvements in their scores after the application of thematic instruction and the conduct of the integrative performance task.

➤ *Statistical Treatment*

The difference between pre and post test scores of the students were analyzed through t-test of dependent means. Also using the frequency distribution, percentage and mean were utilized to interpret the students responds to the questionnaire about the effectiveness of thematic instruction.

➤ *Research Ethics*

The schools subjected to the study were provided with consent, together with the teachers that participated in the orientation, simulation, and evaluation. The information collected from the participants remained confidential and used only according to the purpose, as indicated in the research.

III. RESULTS

This chapter details the results of data collection and analysis and report findings concerning the research questions for this study. The results show the result of the pretest and posttest to some lessons with integration as well as the result of the survey on the effectiveness of thematic instruction in the conduct of integrative performance task.

➤ *Result of Pretest and Posttest*

Table 1 Comparison between Pre-Test and Post test

Group	PRE-TEST	POST-TEST
Mean	7.1250	10.8750
SD	2.6621	2.3986
SEM	0.4209	0.3792
N	40	40

The intermediate values are $t = 12.8190$, $df = 78$ and standard error of difference = 0.5666. The two-tailed P value is < 0.0001 at 95% confidence. The result is significant at $p < .05$. Thus, this mean that there is a significant difference between the result of the pretest and posttest. An improvement of at least 3.75 from the posttest was visible.

➤ *Students' and Teachers' Perception on the Effectiveness of Thematic Instruction*

The participants were provided with a questionnaire relative to their perception on the effectiveness of thematic instruction in the conduct of integrative performance task as well as to the learning of the lessons.

Table 2 Result of the Students' Survey on the Effectiveness of Thematic Instruction

Survey Item	1	2	3	4	5		
1	0	3	15	16	6	145	3.625
2	0	3	12	11	14	156	3.9
3	0	3	18	7	12	148	3.7
4	0	3	13	12	12	153	3.825
5	0	9	10	17	4	136	3.4
6	0	1	18	11	10	150	3.75
7	0	2	20	8	10	146	3.65
8	0	2	18	11	9	147	3.675
9	0	3	17	12	8	145	3.625
10	0	0	17	13	10	153	3.825
11	0	0	19	15	6	147	3.675
						Mean	3.69545
						MPS	73.9091

• *Legend:*

- ✓ *Not Effective*
- ✓ *Somewhat Effective*
- ✓ *Effective*
- ✓ *Very Effective*
- ✓ *Extremely Effective*

Based from the result of the survey, most of the students answered that Thematic Instruction is "EFFECTIVE" which is presented by the number three (3). Thus, the mean is 3.69 which is equivalent to almost 74%. It means that majority of the students believed that thematic instruction has a good effect to them.

Table 3 Result of the ENSCIMA teachers' survey on the effectiveness of Thematic Instruction

Survey Item	1	2	3	4	5
	Not Effective	Somewhat Effective	Effective	Very Effective	Extremely Effective
1	0	0	0	2	1
2	0	0	0	3	0
3	0	0	0	2	1
4	0	0	0	0	3
5	0	0	0	2	1
6	0	0	0	1	2
7	0	0	0	1	2
8	0	0	0	1	2
9	0	0	0	0	0
10	0	0	0	2	1

Mean-4.53 MPS-91% SD-1.58

Furthermore, even the teachers' survey on the effectiveness of thematic instruction showed that the ENSCIMA teachers believed that it improved the students' performance especially in the presentation of their performance task.

IV. DISCUSSION

The chapter discussed the efficiency of using the thematic instruction in doing an integrative performance task as well as in learning the lesson covered in Grade 8 EnSciMa.

The study revealed that there is a significant difference in the students' pretest and posttest after the conduct of the thematic instruction. Moreover, it was also found out that there was a higher participation and understanding in the doing the integrative performance task, thus, it was shown in the students' survey that they learned better when using a thematic instruction..

Also, the teachers' survey on the effectiveness of thematic instruction revealed also that there were advantages in using it and in learning and retention of the lesson of the students.

The result of the study implied the importance of how teachers should adapt thematic instruction in subjects that can be integrated. This will not only help them to teach the lesson effectively but also lessen the students' burden in doing lots of performance task. It is just necessary to walk through the competencies and find the relevant and related topic to discuss.

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