

INTERACTIVE NOTEBOOK: EFFECTS ON CREATIVE AND CRITICAL THINKING SKILLS OF SOCIAL STUDIES STUDENTS

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Abstract

The introduction of varied methods and techniques to sustain student interest must be implemented to make learning more interesting, meaningful, and permanent. This study sought to determine the effectiveness of an Interactive Notebook with varied performance tasks in the creative and critical thinking skills of Social Studies students. This descriptive action research was conducted in a public secondary school in Zambales, the Philippines involving 60 Grade 8 students in two classes using convenience sampling. The pre-test and post-test were used as the main instrument in gathering data and validating the scoring rubrics, and standard levels of performance (emoticons) were used to assess varied performance tasks. The Interactive notebook (IN) is used as a tool for recording all performance tasks for the whole duration of the second grading period. The result showed that the level of creative and critical thinking skills of both sections under two different curricula increased from below average as developing level performance to excellent as proficient level upon exposure to the intervention for almost four months. Based on the results, it is concluded that the application of the IN with varied performance tasks showed a very satisfactory increase in the creative and critical thinking skills of the Social Studies students. The exposure to varied activities under performance tasks with the evaluation of different groups using varied assessments (rubrics and standard level emoticons) facilitates creative and critical thinking skills. Therefore, it is recommended that the application of the IN to other classes will further improve the students' creative and critical thinking skills. Aside from the IN, localized forms of assessments may be introduced.

Keywords: Creative thinking skills; critical thinking skills; interactive notebook; performance tasks; social studies

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INTRODUCTION

For many students, the Social Studies curriculum is viewed as uninteresting and not appealing. Students' performance in the class is often perceived as not assessed as it should be. This is because it is mostly taught in a traditional way. Meanwhile, budgetary cuts for teachers' welfare have contributed to the problem as teachers have more duties which often lead to less time for class preparation and, therefore, less engaging lessons and units (Herczog, 2010).

Tomlinson et al. (2003) emphasized the pledge that all learners can and will learn is merely rhetoric if teachers have insufficient knowledge of the learners that they are working with and do not possess wide-ranging pedagogical skills designed to extend a hand to the learners. In addition, children's personal experiences at any angle of life are the most appropriate pattern for the combined social and knowledge skills. Being watchful of what the environment is may contribute to their social awareness and the environment as well (Kostelnik,

Soderman & Whiren, 2011). This views the real scenario of Social Studies teaching that there are several factors that affect the teaching of the subject. In response to the problem in Social Studies teaching,

Maxim (1999) described Social Studies as not just teaching and helping students to be a part of the class but generally facilitating learners' acquisition of skills that may contribute to the society where they live and be a part of the 21st-century world. For this reason, introduction of varied methods and techniques to sustain their interest must be implemented to make learning more interesting, meaningful and permanent. Furthermore, social studies is a discipline that deals with the human relationship and the way society works (Crisolo et al., 2021).

In general, Social Studies is perceived as a concept and knowledge subject where variety of activities must be integrated. Individual differences, level of interest and maturity level must be considered for effective delivery of instruction. One important goal of Social Studies education is to equip students with

the tools necessary to make sense of international developments, and to pose questions that help students understand the world and how it came to be (Dunn, 2002). Social studies subject is considered as one of the most important courses in the basic education curriculum as it focuses on teaching the learners the sense of nationalism and the value of civic engagement (Rogayan et al., 2021).

In adapting the environment into the real world of learning, being ingenious, teachers should make use of the varied activities in their environment. Exposure to such environment helps them build better skills and experiences, create meaningful connections, and develop their own perspective. On the other hand, Şeker and Oruç (2013) mentioned success in Social Studies teaching is shaping of lessons with real events, stories and real life patterns. In short, these prove that Social Studies learning is an immersion to the real environment where everyone experiences complexities in life.

Several researches on education show that teachers never stop discovering a principle and test how it works to make learning in Social Studies more meaningful, interesting and permanent. Acero (2015) claimed that exposure to different environments help create meaning from the activities, draw implication from previous experiences and apply them in real life situation. Providing rich and real world experiences will create something which they can call their own and in which they can express their views, thoughts, feelings and beliefs, thus creativity and aesthetic sense can be cultivated. Farisi (2016) emphasized that social studies learning process must be aligned in the 21st century skills using current way of teaching. A new way of teaching makes the students actively participating in the classroom processes. The main knowledge and skills in the curricula must overlap with students' needs and develop the child's mental skills and personality at all points in the lessons (Kabapınar, 2007).

As the national institution mandated to provide quality basic education to all Filipinos, Department of Education (DepEd) seeks to ensure the learning outcomes are achieved by maximizing the competencies of teachers and potentials of all types of learners. This theme thus covers the actors, activities and fundamental aspects of teaching and learning various contexts (DepEd Order no. 39, s. 2016). Teaching with a range of strategies leads to a higher likelihood of students involvement and engagement in higher-order thinking tasks such as analysis, synthesis, and evaluation. Furthermore, assessment must be aligned to the critical thinking skills as one of the concerns of K-12 learning standard for the holistic development of the learners (DepEd Order 8 s. 2015). These critical thinking activities can inspire students to engage and self-reflect producing a more metacognitive process (Krathwohl, 2002). In line with this, Thompson and Washington (2015) stressed that teachers must understand the world of teaching on how to enhance the thinking skills of students,

particularly critical matters.

Moreover, one of the tasks of the teacher is to enhance and develop student's skills. However, to process and challenge students higher order thinking skills, teacher must teach students how to think beyond facts (Gunter, Estes, & Schwab, 2003).

The present study explored how Interactive Notebook (IN) was used as a tool in performance task and affected the creative and critical thinking skills of the students. As to the tools used to carry each task daily, Rossi (2004) claimed the use of Interactive Science Notebook is helpful in developing the skills of the students especially their higher-order thinking skills (HOTS) and critical analysis (CA). Interactive Notebook (IN) allows the learners to think critically, and be creative which is an important thing in achieving the skills needed in passing the subject.

Previous scholarly works have found out the positive effects of IN in the critical and creative thinking of the learners (Baker et al., 2021; Galanti et al., 2020; Hurst, 2021; Suarez et al., 2018).

In the local setting, the use of IN in social studies have not been fully documented. This research gap inspired the researchers to conduct the study. This study aimed to examine the effects of IN in the creative and critical thinking skills of the learners under real environment setting.

METHOD

Research Design

The study used a descriptive action research design, which described the level of creative and critical thinking skills of two sections under two different curricula before and after the application of the Interactive Notebook (IN).

Study Respondents

Two sections of Grade 8 level served as the participants of the study. There were thirty (30) students in Class A and thirty (30) students in Class B, which has a total of sixty (60) participants chosen using convenience sampling technique. The selection criteria used are the following: (a) Grade 8 student; (b) currently enrolled during the SY 2018-2019; and (c) enrolled in Araling Panlipunan (Social Studies) subject. The study was conducted in a public secondary school in Zambales, Philippines from August 14, 2018 to November 13, 2018.

Research Instrument

To gather the needed data in determining the effects of Interactive Notebook (IN) in creative and critical thinking skills among students of Social Studies, the following were the instruments used.






The teaching plan included the topics, objectives and the performance tasks for the second (2nd) grading period. It is the blueprint of the teaching and learning processes, which was planned based on prescribed lessons of the Department of Education (DepEd).

A multiple choice type of test composed of fifty (50) items was used in the conduct of the study. The lessons covered fifteen (15) topics discussed within the second grading period, school year 2018-2019. Since the study focused in the creative and critical thinking, Higher Order Thinking Skills or HOTS questions were used that fall on analysis, synthesis, and evaluation. This instrument was used to measure how effective the Interactive Notebook (IN) on the creative and critical thinking skills of the students.

A parallel pre-test and post-test was constructed and validated by experts. The test was pilot tested to thirty (30) students. The results underwent item analysis that established the validity and reliability of the test items.

To further enhance the students' creative and critical thinking skills, students were evaluated based on their performance activities. The activities were given original titles to make them catchy, interesting and appealing. Based on the activities, different rubrics were constructed for fair assessment of the students' performance wherein process and products were assessed. The constructed scoring rubrics were analytic to point out the strengths and weaknesses of the students in a particular task. Rating scale was used with twenty (20) points score, having four (4) criteria that uses five (5) descriptors as standard level of performance. Analytic rubrics is just a half (50%) total score of the task given, there is also another type of evaluation based on the emoticons which was signed by the teacher, parents, and the co-learners. The design of the Interactive Notebook (IN) has been anchored on the Facebook emoticons as follows:

Figure 1
The standard level of performance using emoticons

Emoticons	Descriptions	Points Score
	Heart	10
	Wow	8
	Like	6
	Happy	4
	Thankful	2

A total score of thirty (30) points for emoticons and twenty (20) points from the rubrics complete 50% each for the final grade.

Data Gathering Procedure and Analysis

The researchers underwent different phases of data gathering procedure. The data gathering procedure, involved six (6) phases to complete the necessary data for the study. The data of the study were gathered by means of Pre-Test, Post-test and the results of their performance tasks.

The data gathering procedure are as follows: construction of the 50-items test questionnaire (phase 1), pilot testing (phase 2), revision of test questionnaire (phase 3), administration of the pre-test

(phase 4), use of interactive notebook (phase 5), and administration of post-test (phase 6).

A diagnostic test (Pre-test) was used to measure the level of creative and critical thinking skills of the students before the application of Interactive Notebook (IN). It is a fifty (50)-item test with Table of Specification (TOS) that measured the Higher Order Thinking Skills (HOTS) of the participants namely: the analysis, synthesis, and evaluation. During the second (2nd) grading period, the application of the Interactive Notebook (IN) was utilized with the assessment of the teacher and the standard level (Emoticons) was used in the evaluation of the tasks. There were fifteen (15) lessons with performance tasks and scoring rubrics and Interactive Notebook (IN) with the emoticons for the standard level, evaluation of the parents, classmates and the teacher. After four (4) months of teaching, a parallel test has been administered. The MS Excel 2010 and SPSS version 20 were used to process the data. The softwares were used to compute for the frequency, percent, mean, standard deviation, and the t-test for paired samples.

RESULTS AND DISCUSSION

Level of Creative and Critical Thinking Skills before the Application of the Intervention

The critical thinking skills include the ability to interpret and to rationalize a given situation in a reasonable manner while creative thinking involves making something new and worthwhile. To measure these skills, a diagnostic test (Pre-test) was given at the start of Second (2nd) grading period. It was used to determine the level of competence and to identify the students who have knowledge about the lessons. It also measures the prior knowledge of the students in the said topics. Critical thinking is connected to analytical skills because thinking critically means higher level of analytical is much needed to understand a problem (Resnick, 1987; Cederblom & Paulsen, 2006; Moore & Parker, 2012).

Table 1 shows the class A under special curriculum and class B under the regular curriculum with a developing level of performance or fair in the pre-test. The results show that both classes lack fundamental knowledge and skills and core understanding of the topics in Grade 8 Social Studies.

Table 1 shows the two classes have fair performance in the pre-test because they still lack knowledge on Grade 8 Araling Panlipunan.

Table 1
Level of students' performance in the pre-test

Scores	Class A		Class B	
	f	%	f	%
11-20	23	76.67	23	76.67
1-10	7	23.33	7	23.33
Total	30	100.00	30	100.00
Weighted Mean	13.36 (Fair)		12.56 (Fair)	

The study identified the level of creative and critical thinking skills. This is supported by Buendicho (2015) that diagnostic test is administered to students who exceed or fall below the learning expectation on the screening measures. Results are used to design instructional plan to meet individual needs. The students level of critical thinking has been assessed under three (3) levels of Higher Order Thinking Skills (HOTS) namely, analysis, synthesis and evaluation. Analysis skill breaks down concepts into distinguish

parts that is easily understood while synthesis skill creates a pattern from small elements putting together as a whole. On the other hand, the evaluation skill shows ability to make judgments or assessment.

Table 2 shows the compared students' proficiency in the pre-test of different curricula. The three (3) Higher Order Thinking Skills (HOTS) were identified to assess the level of thinking skills of the classes.

Table 2
Level of students' proficiency in the pre-test by level of thinking skills

Learning Outcomes	Class A			Class B		
	No. of Items	Mean Scores	Mean Percent Score	No. of Items	Mean Scores	Mean Percent Score
Analysis	19	4.83	25.42	19	4.20	22.11
Synthesis	13	3.30	25.38	13	3.50	26.92
Evaluation	18	4.73	26.28	18	4.27	23.72

Table 2 reveals the learning outcomes in the pre-test under the critical thinking skills of the class A. It also shows the number of students who got the items right with their corresponding means. There were nineteen (19) items under Analysis skill with the highest mean of 4.83 while synthesis has thirteen (13) items with the lowest mean of 3.30. As compared to the class B, Evaluation skill has the highest mean of 4.27 while Synthesis skill has the lowest mean of 3.50. Class A performed better than class B as revealed in the mean difference of 0.30. The Principle of understanding depicts how the students' prior knowledge and understanding in the topic or task can help to comprehend (Garo, 2007). To start teaching is very difficult unless one knows what topic to start with. A test must be given at the beginning of instruction to identify the students' strengths and weaknesses. This assessment will determine the level of competence and to identify who among the students have already the knowledge about the topics (DepEd Order 73, 2012). In response to this order, the pre-test was constructed under the Higher Order Thinking Skills (HOTS) to deepen their creative and critical thinking skills.

Performance-based assessment was used to directly measure the learning competence. It is an observation of actual performances of the students. The result is supported by Gabuyo (2012) as he claimed teacher or evaluator provides immediate feedback on how the students performed to carry out their performance tasks.

Performance Tasks Implemented

Interactive Notebook (IN) as a tool in keeping students records of performance tasks, making them more independent, ingenious, resourceful in a sense that they act critically and creatively. It is interactive because there is participation in the evaluation of the learners' tasks by teacher, parents and the learners themselves. They helped each other to assess and to

make the Interactive Notebook (IN) be a tool for life changing habits.

IN is also interactive because the parents, teacher, co-learners and the learners making feedback to the Interactive Notebook (IN), it's either correctional feedback or praising feedback. Bower and Lobdell (2005) affirmed that Interactive Notebook (IN) guides the students into the world of learning. The developed Interactive Notebook (IN) composed by a critical and creative organization of concepts.

For almost four months of teaching in the two sections under two different curricula in Grade 8, Interactive Notebook (IN) has been used as a medium for expressing creative works under performance tasks. Every student is required to have his own notebook with complete identity as the owner of the notebook together with their teacher's name. They were allowed to do anything on the cover that will represent their personality. They were advised to use any medium of drawing and feasible objects to make the tasks in the Social Studies unique. On the right side of the Interactive Notebook (IN) included the different activities accomplished in the 2nd grading. At the end of every task, printed emoticons and space for the signature of evaluators are given. On the left side of the notebook, their own style of note taking were encouraged, they used graphic organizer to simplify, summarize and to organize the information given by the teacher while discussing. Every Friday, checking of the Interactive Notebook (IN) happens, to supervise the standing of the students when it comes to their notes and tasks. After the teaching experience, all the activities and all information about the whole topics were done completely and creatively.

According to DepEd Order No. 8 (2015) activities provided the students the ability to showcase what they've got in doing a task, and how they transformed task into innovative one while Buendicho (2015) cited that performance is a way to oversee the students learning. In that activity, the teacher provides criteria

as guide of the students, and it is an outcome of all the teachers' effort. In addition, Ornstein (1990) pointed out that the facilitator must carefully observe the capabilities of the learner on the task, the teacher must work in hand. Teenagers as young as they are, once exposed to different media are creative and imitative. Catchy titles were used to catch their interest in the topic.

Table 3 shows the complete description on how each performance tasks on the Interactive Notebook (IN) has been presented and used in the two classes of Grade 8. Catchy titles that stimulate creative thinking and activities that encourage critical thinking were anchored on Acero et al. (2015) strongly emphasized the quality of learning can bring about positive results by understanding one's own learning styles through variety of techniques. In addition, she

pointed out that teachers must be aware of each students learning styles and identify each who needs to be guided most. Trucillo (2006) affirmed that students when exposed with the material by making charts, illustrating their notes, creating time lines, writing poetry, and stating their opinion enhance their thinking skills, such activities help them demonstrate what they have learned and remember the concept. One of the reasons why the researchers focused on performance tasks is to promote Gardner's Multiple Intelligences, as he believed that students learn better through some intelligences than others (Gardner, 2006; Kagan & Kagan, 1998; Gardner, 1993; AASA, 1991). Furthermore, Ornstein (1990) cited that students learn analytically upon exposure to different tasks.

Table 3
Performance Tasks for Creative and Critical Thinking Skills

Performance Tasks (Creative Titles)	Description
Daloy ng Kaalaman	A time line making activity that use the chronological order of events about Minoans and Mycenaean.
ITLog- Ilarawan at Talakayin sa Bilog	It is a concept map making activity where the word Polis being describe uses arrows.
Letra ko Bigyan mong Kahulugan	It is an acrostic words making activity where the word SPARTAN defines through its letter.
Tula mo Show mo	It is a poem making activity where its theme is all about democracy.
MapaBasa	It is a map reading activity where the students are tasked to examine where the Graeco-Persian war started to crawl, and students are task to draw the map.
Versus Map	It is an activity where the students are tasked to compare and contrast the land territory of Sparta to Athens, as the Peloponnesian war started.
HamBilog	It is a Venn diagram activities where the students are tasked to compare Athens to Sparta, based on the topic tackled.
Anong Sabe?	It is a Bubble call out activity where the students are tasked to draw an image of their representation with a pop out message on the top, telling about what they wanted to be.
POSTura	It is a poster making activity where the students are tasked to draw the Roman civilization.
Puno ng Pinuno	It is a tree concept where the students are tasked to classify the position in the government system of the Roman Republic.
Sigaw ng Aking Hinaing	It is a slogan making activity where the students are tasked to describe the victory of plebeian to patrician.
Guhit ng Salita	It is a drawing activity where the students are tasked to draw a thing depicting to the word victory.
Kasaysayawit	It is a song composing activity where the students are tasked to compose a song about Punic war.
Istorya mo Show mo	It is a story making activities where the students describe their victory in their life connecting to the topic about victory.
#Tagumpay Sa Unang Tingin	It is a free writing activities where the students describe the term accordance to what they can see in the presentation of the video clips

Performance tasks in the Social Studies curriculum composed of fifty percent (50%) of the grading system. According to DepEd Order no. 8, s. 2015, multiple intelligences of a learner can develop and enhance through different performance tasks. These tasks challenge every student to enhance their

critical or creative thinking skills and abilities. Each task was evaluated through scoring rubrics with rating scales of five (5) criteria and four (4) performance levels to complete twenty (20) points, thus, analytic rubrics were used to evaluate the tasks. Rubrics are useful as they help students become more thoughtful

judges of the quality of their own and others work (Gabuyo & Dy, 2013).

Different performance tasks were given to the two sections under different curricula as form of

formative assessments and even motivation, completing the performance as products presented in the Interactive Notebook (IN).

Table 4

Mean of scores of two sections under the two curricula using rubrics

Performance Tasks	Class A		Class B	
	Mean	Rank	Mean	Rank
Daloy ng Kaalaman	18.16	7	18.16	4
ITLog- Ilarawan at Talakayin sa Bilog	18.63	3	18.63	2
Letra ko Bigyan mong Kahulugan	18.93	2	18.93	1
Tula mo Show mo	18.43	4	17.70	7
MapaBasa	17.66	12	17.56	8
Versus Map	18.00	9.5	17.13	12
HamBilog	17.23	14	16.76	15
Anong Sabe?	17.70	11	17.53	9
POSTura	19.47	1	16.80	14
Puno ng Pinuno	17.26	13	17.23	11
Sigaw ng Aking Hinaing	16.90	15	17.06	13
Guhit ng Salita	18.36	5	17.40	10
Kasaysayawit	18.33	6	18.53	3
Istorya mo Show mo	18.00	9.5	17.93	5
# Tagumpay				
Sa Unang Tingin	18.10	8	17.76	6

Table 4 shows the comparison of the means together with ranks of the performance tasks of the two sections under two different curricula. Under Class A, "Postura" ranked first with the mean of 19.47 in the performance task because the task is drawing freely depicting a certain issue and easy for them to do, as they are specializing in Arts. Poster making enhances student's creative skills in making bold and exaggerated drawings that alerts, warns and advertises product or idea. "Sigaw ng aking Hinaing" ranked last with a mean of 16.90, it only means that slogan making appears difficult for them to show case their skills because of low level skill in conceptualizing the idea or concept. However, slogan making increases student's creative skills through expressing their thoughts more freely in a simple but catchy meaningful sentence. Exposure to different activities as to what have mentioned above really encourages their creativeness and being resourceful in every activity assigned to them. To support the results, Moore (2005) stressed that creative thinking is synthesizing bits of facts to form a new concept. Therefore, one's creativity is assessed through varied performance tasks.

Under Class B, "Letra ko Bigyan mong Kahulugan", ranked first with a mean of 18.93 because the performance task was purely acrostic words, it was easily understood and supplemented with terms associated with the concept about warriors. Students' creative thinking skills has been enhanced through knowledge of meanings of words and conceptual knowledge of words while "Hambilog" ranked last with a mean of 16.76. It shows that

students have difficulty in expressing similarities and differences between and among concepts. It only means that the learners are passive in some activities.

The performance tasks of every students' Interactive Notebook (IN) has been subjected to evaluation using emoticons with reference to the standard level of satisfaction. It was composed of thirty (30) points. It is a type of evaluation that shows the feedback of the teacher, parents, and the classmates. It shows the level of satisfaction of the three evaluators in the activities or tasks done by the students. Calmorin (2014) stated that giving feedback to the work of the students is effective way to encourage them in learning process. Buendicho (2015) supported the results and believed that parents are often overwhelmed by the test and tasks reports they received from school and to establish open communication between parents and teacher, they are regularly informed about the child's progress.

Table 5 shows the performance tasks of two (2) sections under different curricula. Under Class A, the "POSTura" ranked first with a mean of 29.40. It only shows that they are good in the arts of making poster while Class B performed best in "Letra ko Bigyan mong Kahulugan" ranked first with a mean of 28.93. Furthermore, class A performed least in "Sigaw ng Aking Hinaing" with a mean of 28.00 which ranked last. As compared to Class B, "Guhit ng Salita" and "Sigaw ng aking Hinaing" both ranked last with a mean of 28.00. Generally, both the classes showed least performance in "Sigaw ng aking Hinaing". This only means that some students are active in some activities aligned on their respective interests and skills.

Table 5
Mean of scores of two sections under the two curricula using emoticons

Performance Tasks	Class A		Class B	
	Mean	Rank	Mean	Rank
Daloy ng Kaalaman	28.73	4	28.73	4.5
ITLog- Ilarawan at Talakayin sa Bilog	28.80	6.5	28.80	2.5
Letra ko Bigyan mong Kahulugan	28.93	2	28.93	1
Tula mo Show mo	28.80	6.5	28.80	2.5
MapaBasa	28.73	4	28.60	6
Versus Map	28.53	10	28.13	10.5
HamBilog	28.33	13	28.26	8
Anong Sabe?	28.60	9	28.33	7
POSTura	29.40	1	28.13	10.5
Puno ng Pinuno	28.26	11	28.13	10.5
Sigaw ng Aking Hinaing	28.00	15	28.00	14.5
Guhit ng Salita	28.66	8	28.00	14.5
Kasaysayawit	28.73	4	28.73	4.5
Istorya mo Show mo	28.33	13	28.13	10.5
#Tagumpay				
Sa Unang Tingin	28.33	13	28.06	13

It is a must to all teachers to develop performance assessment in every students' performance to measure the complex learning outcomes. Gallagher (1998) as cited by Gabuyo and Dy (2013) stated that, judging must focus on current instruction, not prior learning and communicate to others what constitutes excellence. To have a fair

assessment of every tasks involvement of two (2) or more evaluators is very important. The tasks under different lessons had been evaluated by three (3) members, the teacher, the parent and classmate. This further supports why the notebook is so-called Interactive Notebook (IN). (Table 6)

Table 6
Combined overall mean scores using rubrics and emoticons

Performance Tasks	Class A		Class B	
	Mean	Rank	Mean	Rank
Daloy ng Kaalaman	46.90	7	46.90	5
ITLog- Ilarawan at Talakayin sa Bilog	47.43	3	47.43	2
Letra ko Bigyan mong Kahulugan	47.86	2	47.86	1
Tula mo Show mo	47.36	4	47.36	3
MapaBasa	46.53	8.5	46.16	6
Versus Map	46.53	8.5	45.26	12
HamBilog	45.56	13	45.03	14
Anong Sabe?	46.30	12	45.86	8
POSTura	48.87	1	44.93	15
Puno ng Pinuno	45.53	14	45.36	11
Sigaw ng Aking Hinaing	44.90	15	45.06	13
Guhit ng Salita	47.03	6	45.40	10
Kasaysayawit	47.06	5	47.26	4
Istorya mo Show mo	46.33	11	46.06	7
#Tagumpay				
Sa Unang Tingin	46.43	10	45.83	9

Table 6 shows that the combined points under the teacher's evaluation using scoring rubrics, the parent and classmate evaluations using the standard level emoticons still show that "POSTura" ranked first as evaluated. Based on actual evaluation, students showed their creativity in the poster using the different media such as drawing, color rendering with three-dimensional effects and textured effect. This only shows that previously, they were already exposed to

these kind of activities, therefore, their talents have been enhanced. The findings are supported by Wist (2006) stated that, feedback of the teacher on the activity enhances student performance.

Moreover, the performance tasks of two (2) sections under different curricula, under class A, the "POSTura" ranked first with a mean of 48.87. It only proves that they are good in the poster making. Meanwhile, class B performed best in "Letra ko

Bigyan mong Kahulugan” with a mean of 47.86. According to Calmorin (2014), feedback of a teacher has a greater impact in the students’ performance in the task, it reinforces students to do better.

Level of Creative and Critical Thinking Skills after the Application of the Intervention

After months of exposure to different performance tasks using the Interactive Notebook (IN), it showed that there is a very satisfactory increased in their proficiency.

Table 7
Level of Students’ Proficiency in the Post-Test

Learning Outcome	No. of Items	Class A		Class B	
		Mean Scores of Students who answered the items right	Mean Percent Score	Mean Scores of Students who answered the items right	Mean Percent Score
Analysis	19	16.33	85.95	14.47	76.16
Synthesis	13	11.33	87.15	9.97	76.70
Evaluation	18	15.23	84.61	13.20	73.33

On the other hand, on the same table, the learning outcomes of the post-test of class B under the critical thinking skills is presented. It also shows the number of students who got the items right with their corresponding means. The analysis skill has highest mean of 14.47 while synthesis skill has the lowest mean of 13.20. Both groups show the same rank on analysis thinking skill and both reveal low in synthesis. Experiential learning is an essential way of acquiring knowledge and skill through direct experience (Salandanan, 2005). If one had experienced something satisfying or unsatisfying this makes memorable to, thus, making learning permanent. Acero et al. (2015), distinguished critical from creative thinking as the former involves independent analysis, synthesis, and evaluation of information that affects behaviour while creative thinking involves the production of something original or new that serves worthwhile.

A parallel test was administered as post-test after four (4) months of exposure in varied performance tasks. According to Dunn and Griggs (1998) as cited by Corpuz and Salandanan (2007), students’ with different sex were motivated and learned in many different ways and interest. Table 8 reveals the compared frequency and percent distribution of two sections under different curricula.

Table 8 presents that out of the thirty (30) students both classes, all students got a score within a very satisfactory level of performance.

However, they differ in the weighted mean with the difference of 4.83. This only shows that class A performed outstanding while class B performed very satisfactory. This proves that upon exposure to different performance tasks, the Higher Order Thinking Skills of the students has been enhanced. The inputs on the notes provided by the students during lectures in their Interactive Notebook (IN) helped them to do

Table 7 reveals the compared proficiency of two sections under two different curricula in the post-test. It shows the learning outcomes of the post-test of the class A under the critical thinking skills. It also shows the number of students who got the items right with their corresponding means. There were nineteen (19) items under analysis skill with the highest mean of 16.33 while synthesis skill has thirteen (13) items with the lowest mean of 11.33.

the tasks creatively that enable them to answer critically. The findings is supported by Hammer (2001) upon exposure to different topics and performance tasks, it developed the students’ willingness to participate in the classroom so that it is important to use varied activities to encourage students’ to work hand in-hand with the teacher.

Table 8
Frequency and Percent Distribution of the students’ Scores in the Post-test

Scores	Class A		Class B	
	f	%	f	%
41-50	21	70.00	8	26.67
31-40	8	26.67	17	56.67
21-30	1	3.33	5	16.67
Total	30	100.0	30	100.00
Weighted Mean	42.33 (Outstanding)		37.50 (Very Satisfactory)	

Based on the students’ level of performance in the pre-test and post-test in Class A, there is a satisfactory increase of 28.97 in the level of performance from fair to outstanding level in the post-test after the application of the Interactive Notebook (IN) in the different performance tasks. The thirty (30) students who are in the poor and fair levels of performance before the application of the intervention, now belong to satisfactory, very satisfactory and outstanding levels after the application of the intervention with the weighted mean of 42.33 and described generally outstanding level of performance.

Meanwhile, students’ level of performance in the pre-test and post-test in Class B shows that there is a satisfactory increase of 24.93 in the level of performance from fair to very satisfactory level in the

post-test after the application of the Interactive Notebook (IN) in different performance tasks. From thirty (30) students who are in the poor and fair levels of performance before the application of the Interactive Notebook (IN), now they belong to satisfactory, very satisfactory and outstanding levels after the application of the Interactive Notebook (IN) with a weighted mean of 37.50, described generally as very satisfactory level of performance.

Both classes show positive performance upon exposure to the varied performance tasks, however

class A showed a greater increase in the performance compared to class B with a mean difference of 4.04. The results are supported by Dewey as cited by Acero (2015) that teaching is effective when the learners is motivated to think and reason. Effective teaching involves the integration of HOTS in the learning process.

To further verify the effectiveness of the exposure to the different performance tasks, Table 11 shows the mean comparison of the pre-test and post-test.

Table 11
Mean Comparison of Pre-Test and Post- Test and Mean t-Value

Class	Pre-test		Post-test		Main gain	p-value	t-value	df	Critical t-value
	SD	Mean	SD	Mean					
Class A	3.78	13.36	4.71	42.33	28.67	P<.01*	23.49	29	2.04
Class B	3.11	12.57	5.11	37.5	24.59	P<.01*	21.85	29	2.04

*Significant at 0.01 level of significance

The mean difference of post-test and pre-test is 28.67. It shows the results of the paired t-test. The computed t-value 23.49 is greater than the critical value of 2.04. Therefore, the null hypothesis is rejected. Hence, there is a significant difference between the means of pre-test and post-test scores. This implied the effectiveness of the Interactive Notebook (IN) in the creative and critical thinking skills of the students in Class A.

The mean difference of post-test and pre-test is 24.59. It shows the results of the paired t-test. The computed t-value is 21.85 greater than the critical value of 2.04. Therefore, the null hypothesis is rejected. Hence, there is a significant difference between the means of pre-test and post-test scores. This implies the effectiveness of the Interactive Notebook (IN) in the creative and critical thinking skills of the students in Class B.

Since the results is very satisfactory, this is supported by Bower & Lobdel (2005) wherein they revealed that the Interactive Notebook (IN) helps the students actively engaging in the world of learning. In addition, the students were stimulated by the different multiple intelligences of Howard Gardner, they were actively organizing the information in a systematic manner. Aside from that, their Interactive Notebook (IN) turned into progress portfolio were students creative and critical thinking skills were developed.

CONCLUSION

Based on the findings, it is concluded that the students' level of creative and critical thinking skills before the application of the Interactive Notebook (IN) with a varied performance tasks is fair. Exposure to varied activities under performance tasks with the evaluation of different groups using varied assessment tools (Rubrics and Standard Level Emoticons) facilitates creative and critical thinking skills. The application of the Interactive Notebook (IN) with varied performance tasks showed increased performance to

very satisfactory in creative and critical thinking skills of students in Social Studiesfor. There is a significant difference in both creative and critical thinking skills before and after the application of Interactive Notebook (IN).

Based from the results of the study and the conclusion drawn, the following are recommended: Teachers may introduce the application of the Interactive Notebook (IN) to their classes to further enhance the creative and critical thinking skills of the students. Teachers may use kinesthetic activities, such as role playing, socio drama, tableau, and other form of task underlying process, wherein the documents can be submitted through video. The script and the concept of the said activities will be posted in the Interactive Notebook (IN). Aside from Interactive Notebook (IN), localized form of assessments may be introduced. Parallel studies about Interactive Notebook (IN) with varied activities may also be applied across disciplines under different curricula to improve its effectiveness.

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