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Research Article

Scenario- Based Learning Approach for Enhancing the Critical Thinking Skills of Grade 9 Students in Araling Panlipunan

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ABSTRACT

This study examined the efficacy of Scenario- Based Learning (SBL) Approach for enhancing the Critical thinking skills of Grade 9 students in *Araling Panlipunan*. Scenario- Based Learning Approach is a student centred approach in *Araling Panlipunan* and suited to the 21st century learners. Thus, this descriptive quasi-experimental research design determined the cause and effect of SBL approach to the critical thinking skills of 40 Grade 9 students of Col. Lauro D. Dizon Memorilal Integrated High School. The results were analysed using mean and standard deviation, t-test and Pearson-r correlation. The study revealed that using SBL approach, students can become more involved, motivated, and develop their real-world skills. Application of SBL approach had great impact in the learning process. Moreover, there was a significant difference in the responses of learners in the pre-test and posttest. It means that the quality and content of SBL approach has positive impact on the learning process in critical thinking skills. This approach become more effective in critical thinking skills as learners had been able to remember, reason and pay attention to SBL approach video lesson. In addition, usage of technology improved learning. The opportunities for teaching with audio visual lessons are ideally adapted to the learners' environment. Thus, learning scenario encourages students to think about what they have learned.

Keywords*: Drawing Conclusions, Enhancing Retention, Gaining attention, Presenting Stimulus, Scenario Based Learning*

Introduction

The government passed the RA No. 10844, commonly known as the Department of Information and Communications Technology Act of 2015. It emphasizes Information and Communications Technology: Its Importance (ICT) in country's development. In response to the significance of ICT in Education, DepEd ensures that ICT is used effectively to aid the teaching and learning process. This is stated in the Results-based Performance Management System (RPMS) from the Objective 2 of PPST

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Module 13 on the positive use of ICT. ICT integration is one of the primary contents in DepEd Order No. 42, S. 2017 also known as Philippine Professional Standards for Teachers (PPST) was signed into law by Department of Education Secretary Leonor Briones. The PPST serves as the foundation for all teacher learning and development activities.

Critical thinking is the face of globalization era. Skills in critical thinking are mental processes and a tool for analyzing and evaluating data or problems. (Sa'diyah, 2021) It is stated in PPST Module 3 *that "teachers must guide students to enhance critical and creative thinking skills, as well as other higher order thinking skills. It can be done by integrating a range of teaching ways".* Critical thinking, on the other hand, will bring the best feasible solution to the fore. Since the beginning of time, learners have been required to be drilled on how to solve problems (Hapsari, 2016). One of the most essential missions of social studies education has always been to teach students critical thinking skills (Karabulut, 2012).

In 2018, Golden revealed that Scenario-Based Learning Approach increased critical thinking skills and decision making of learners. Scenario-based learning, which is particularly beneficial to learners in terms of developing critical thinking skills and helps to bridge the gap between theory and practice (Meldrum, 2013). Parikh (2016) stated that the educational system and approaches are at the heart of the education's development and progress. As specified in DepEd Order No. 42 series 2013, the creation and development of teaching and learning materials produced locally shall be encouraged. Strengthening the educational system and employing new methodologies are urgently needed. Students' performance can also be improved by mixing blended learning with audio-visual, which can help them comprehend things better (Hasan, 2019).

Methods

Research Design

The researcher used descriptive quasi experimental design to examine the effectiveness of Scenario- Based Learning Approach in strengthening the critical thinking skills in Economics of Grade 9 students in *Araling Panlipunan*. The descriptive design method looks for the genuine facts in each situation. This design determined the respondents' perceptions as well as the significant difference between the means from one set of students' post-test (Nassaji, 2015). This study used a descriptive survey with a questionnaire as the primary data collection tool, with the go al of determining expert validation and students' perceptions on the use of scenario-based learning in terms of Gaining Attention, Informing Learner of the Objectives, Presenting the Stimulus and Enhancing Retention and Transfer of Learning. Descriptive research focuses on gathering information on present conditions or situations to describe and interpret the data (Aggarwal, 2019). This research method involves more than just data collection and tabulation; it also necessitates accurate analysis, interpretation, comparisons, and trend and relationship detection. The goal of a quasi-experimental design is to prove a causal connection between an independent and dependent variable. Participants in this design took a pretest and a posttest to determine cause and effect of SBL approach to the learners. In order to examine change over time, the researcher conducts a pre-test and post-test in this kind of quasi-experiment. Pre-test and post-test designs are a typical illustration of how to use this methodology to identify student learning outcomes (Thomas, 2022).

Sampling and Ethical Considerations

The researcher used complete enumeration sampling technique which is purposive. The respondents were selected from the seven heterogeneous sections being handled by the researcher where each of these sections was arranged alphabetically according to colors. Thus, Grade 9 Denim was the first section from the alphabetical arrangement, and were chose as the main respondents of the study. Some also of the qualifications that were taken into account was that Denim was a heterogenous section, Individual differences in terms of intellectual, emotional and social aspect were observable. Though majority of learners in this section can be categorized in average level. An assessment of pre-test and posttest was administered

before and after the respondents' exposure to the SBL approach.

Research Instruments

The researcher generated self-made lesson plans, survey questionnaire which focused on students' perceived use of scenario-based learning approach. As part of the initial procedure for accomplishing the survey questionnaire, the researcher submitted and presented it to the school experts specifically the Araling Panlipunan Head Teacher, Araling Panlipunan Master Teacher and English Head Teacher. The necessary corrections was made as well as revisions. The suggestions of panel of examiners for tool validation as well as researcher's adviser were incorporated.

Furthermore, to test its reliability, the researcher conducted pilot testing of the questionnaire to the 20 students not included in the study. Cronbach's alpha formula was used to test its reliability. The criteria were interpreted using the Likert Scale of 1 to 4 from Strongly Disagree, Disagree, Agree and Strongly Agree respectively. These ratings were interpreted verbally as Not Observed at All, Less Observed, Observed, and Highly Observed respectively.

In addition, the researcher utilized a standardized pre-test and posttest assessment tool to determine student performance in terms of the learner's critical thinking skills. The pretest and posttest of the respondents in enhancing the critical thinking skills of Grade 9 students were interpreted using the Scale as follows: 9-10 Outstanding, 7-8 Very Satisfactory, 5-6 Satisfactory, 3-4 Fairly Satisfactory, 0-2 Did not meet expectations

Data Analysis

The descriptive statistics such as mean and standard deviation were used to measure the respondents' perception on SBL learning approach in terms of Gaining Attention, Informing Learners of the Objectives, Presenting the Stimulus, and Enhancing Retention and Transfer of Learning.

For the pretest and posttest instrument, t test was utilized to compare the mean scores in their pre-test and posttest and to find out whether there is a significant difference among the means of the pre-test and posttest scores.

Correlation analysis was used to determine the significant relationship between the use of scenario-based learning approach and the assessed students' critical thinking skills in Grade 9 Araling Panlipunan.

Result and Discussion

Perceived Use Presenting the Stimulus of Scenario Based- Learning Approach as to Gaining Attention, Informing Learners of the Objectives and Enhancing Retention and Transfer of learning

Table 1 presents the respondents' perceived on the Used of Scenario- Based Learning Approach as to Gaining Attention. As shown in the table the learners have "Observed" on curiosity about what lies ahead with a mean of 3.13 and attracts attention on the concept with a mean of 3.10 respectively. The overall mean of 2.97 for gaining attention which categorized as "Observed". It implies that using scenario-based learning students can become more involved, motivated, and increase participation in the learning process.

Moreover, the researcher noticed that the students were all focus to the video presentation and all interested in what lies ahead. It is evident in the conduct of video presentation, as their curiosity manifested through their preference of watching video lesson. Generally, they were all keenly watching and listening throughout the SBL approach. In addition, one of the factors also that led to their positive perception to the video lesson was the different approach of discussion with the aid of projector and speakers that made the students listen through the whole video lesson

The table illustrates the learners' perceived application of Scenario Based- Learning Approach as to Informing Learners of the Objectives. The learners perceived statement 1 as "Observed", scenario based-learning approach sets expected performance ($\bar{x}$= 3.05) while helps anticipate what they will need to understand and present at the conclusion as perceived by the learners as "Observed" ($\bar{x}$= 3.00). It can also be gleaned that SBL video lesson is beneficial in order to establish the learning goals. The overall mean value of 2.67 as "Observed" reveals that scenario- based learning (SBL) approach sets expected performance

were considered to be one of the important factors in the success of SBL. Before the conduct of each video lesson presentation, the researcher always disclosed the objectives of the lesson to its students. Through the objectives of every video lesson, it also helps learners anticipate what they will need to understand and present at the conclusion. Thus, researcher imposed to the learners that they were not just simply watching and understand the objectives but also try to enhance their ability to criticize.

The data reveal the respondents' perceived used of scenario based-learning approach as to presenting the stimulus. The learners as the respondent of SBL approach perceived indicator 2 and 8 as "Observed", that it promotes positive and healthy attitudes towards ICT and its use and SBL approach is flexible enough to allow for unplanned conversation having the same result as ($\bar{x}$= 3.33).

The overall mean value of 2.96 as "Observed", revealed that using SBL approach in in-person classes hold students' attention throughout subject presentations. Integrate the use of interactive technologies provides positive learning among students. The use of technology inside the classroom plays a vital role in mastering the content of the lesson. The SBL approach in the context of its presentation greatly elicit the interest of the students for them to understand and watch the video lessons. It promotes positive and healthy attitudes towards ICT. Its purpose of presentation did not limit on the student's interaction just by watching it, as the video lessons also offers performance tasks in every video lesson after each discussion. By providing challenging scenarios from the video lesson, each group work collaboratively to come up with their best consolidated answer. The students' eagerness and seriousness in watching the video lesson were apparently observed, as it let them understand the lesson well.

As shown in the table, SBL approach applies what one has learned in one circumstance to another as "Observed" ($\bar{x}$= 3.28) and ensures that everyone has a chance to apply what they have learned ($\bar{x}$= 3.13) as observed on SBL approach as to enhance retention and transfer of learning. The overall mean value of 2.94 as "Observed", revealed that using SBL approach in in-person classes enhance retention and transfer of learning among learners. Transfer of learning has been thought to be the goal of education.

The researcher observed noticeable development to the students' learning and undertakings from the SBL approach, as their outputs were more comprehensive, and integrated upon the application of scenario-based learning. Such ouput of learners signified that SBL approach applies what one has learned in one circumstance to another. This technique proved that learner's retention of the lesson was flatteringly improved.

Among the four parameters (Gaining Attention, Informing Learners of the Objectives, Presenting the Stimulus and enhancing retention and transfer of learning) on students'perception on the Scenario- Based Learning Approach, the first parameter (Gaining Attention) has the highest mean score among the four ($\bar{x}$= 2.97) followed by Presenting the Stimulus ($\bar{x}$= 2.96), enhancing retention and transfer of learning ($\bar{x}$= 2.94) and Informing Learners of the Objectives ($\bar{x}$= 2.67) respectively. The summary implies that SBL approach grasp attention among learners. Using scenario-based learning, students can become more involved, motivated, and develop their real-world skills. To persuade students to pay attention to the content SBL approach must be continually present in the learning process.

Table 1. Perceived Use Presenting the Stimulus of Scenario Based- Learning Approach as to Gaining Attention, Informing Learners of the Objectives, Presenting the Stimulus and Enhancing Retention and Transfer of Learning

The video lesson….			
Gaining Attention	**Mean**	**SD**	**VI**
1. boosts learner's motivation.	2.98	0.92	O
2. provides efficient way to understand the topic.	3.00	0.96	O

3.	caters opportunities for effective communication.	3.03	0.88	O
4.	makes more involved, motivated, and develop real-world skills.	2.90	0.90	O
5.	makes learning more permanent and lasting.	2.70	0.99	O
6.	promotes learning by collaborating with the knowledge field and generating interest in the subject.	3.05	0.90	O
7.	persuades to pay attention to the content that has been meticulously prepared.	2.78	0.92	O
8.	increases curiosity about what lies ahead.	3.13	0.92	O
9.	inspires to participate in the learning process.	3.08	0.92	O
10.	attracts attention on the concept.	3.10	0.98	O
Overall		2.97	0.41	O
Informing Learners of the Objectives				
1.	sets expected performance.	3.05	0.81	O
2.	prepares students for receiving knowledge.	2.43	0.84	LO
3.	aligns with the technological audience's day-to-day demands.	2.53	1.01	O
4.	initiates change attitude in the target lesson.	2.35	1.05	LO
5.	suits in the teaching-learning processes.	2.35	0.92	LO
6.	clears objective in sequential manner of the presentation.	2.98	0.95	O
7.	intensifies and guarantee that critical learning goals is addressed.	2.78	1.03	O
8.	suits for the audience's socio-cultural level.	2.95	0.93	O
9.	helps anticipate what they will need to understand and present at the conclusion.	3.00	0.96	O
10.	equips with goals and concept that are simple to grasp easily.	2.33	0.89	LO
Overall		2.67	0.46	O
Presenting the Stimulus				
1.	is easy to understand, arranged from simple to complex.	3.13	0.88	O
2.	promotes positive and healthy attitudes towards ICT and its use.	3.33	0.80	O
3.	portray ethical media practices.	2.70	0.97	O
4.	has languages compatible with public understanding.	2.78	0.95	O
5.	is appropriate for the target audience.	2.68	0.94	O
6.	is adequate and worthy of students' time and effort.	2.53	0.93	O
7.	presents the subject to the class by outlining what student need to understand.	3.10	0.90	O
8.	is flexible enough to allow for unplanned conversation.	3.33	0.89	O
9.	integrates the use of interactive technologies.	3.18	0.90	O
10.	breaks the content into smaller chunks.	2.83	0.96	O
Overall		2.96	0.35	O
Enhancing Retention and Transfer of Learning				
1.	provides activities that promote the development of critical thinking skills.	3.08	0.97	O
2.	provides activities that discover and learn new lessons.	2.85	1.10	O
3.	promotes creativity through real world situation and tasks.	2.75	1.10	O
4.	allows generalization and transfer of learning to different contexts.	2.73	1.04	O
5.	portrays key aspects that should be reinforced.	2.58	1.03	O
6.	applies knowledge in learning situations.	2.95	0.96	O
7.	provides a direct lesson while simultaneously stressing important themes.	3.03	0.86	O
8.	relates knowledge to personal circumstances and transfer to the real life.	3.00	0.85	O

9. applies what one has learned in one circumstance to another.	3.28	0.68	O
10. ensures that everyone has a chance to apply what they have learned.	3.13	0.82	O
Overall	2.94	0.36	O

Legend: *3.50 - 4.00-Highly Observed (HO), 2.50 - 3.49- Observed (O), 1.50 – 2.49- Less Observed (LO), 1.00-1.49- Not Observed (NO)*

Test of Significant Difference between Pre-test and Posttest Scores on Scenario-Based Learning Approach

Table 2 shows the test of significant difference between students' mean of pre-test and posttest scores exposed to Scenario-Based Learning Approach in enhancing their critical thinking skills.

The data reveal the significant difference on the pre-test and posttest score of learners after being expose scenario-based learning approach, recognizing (t=-9.951), evaluating (t=-14.141) and drawing (t=-13.602) at p<.05 level of significance. Critical thinking skills as to recognizing assumptions has a computed mean pre-test score of 4.60 and a mean posttest score of 8.28 ; evaluating arguments with a mean pre-test score is 2.25 and a mean posttest scores of 7.28 as well as drawing conclusions with a mean pre-test value of 1.45 and a mean posttest value of 6.33. In this context, the student's attitudes significantly differ from their posttest performance. It can be exemplified by their allotted time of answering the pre-test as students have different time to accomplish the whole questionnaire. This is due to the student's background information about the topic, as they are not that aware, and well-informed to the lesson. But, after administering the video lesson with SBL approach, the student's will and attitudes significantly rose higher when answering the post test. The students stated that they are now more aware and equipped for the next lesson due to the SBL approach that extensively discussed the topics on national economy models, demand and supply and national income. These serves as the students' foundation to draw conclusions, and provide rich insights when answering the questions.

The overall result implies that all of the learners became attentive and observant as they watch the video lesson. Thinking carefully, discussing ideas, refining understanding, reflecting on progress and drawing their conclusion is the main purpose of SBL approach. This approach become more effective in critical thinking skills as learners had been able to remember, reason and pay attention to the video lesson.

Table 2. Test of Significant Difference between Pre-test and Posttest Scores on Scenario-Based Learning Approach

	Pretest		Posttest		t	df	Sig. (2-tailed)
	M	SD	M	SD			
Recognizing of Assumptions	4.60	2.07	8.28	1.32	-9.951	39	0.000
Evaluating Arguments	2.25	1.71	7.28	1.65	-14.141	39	0.000
Drawing Conclusion	1.45	1.41	6.33	1.98	-13.602	39	0.000

Legend: *N =40, M = mean, SD = Standard Deviation p<.05 Significant p≥ .05 Not Significant*

Test of Relationship between the Perceived Use of Scenario- based Learning Approach to the Post test Score in the Critical Thinking Skills

The data in Table 3 present relationship between the perceived used of scenario-based learning approach in terms of Gaining Attention, Informing Learners of the Objectives, Presenting the Stimulus and Enhancing and Transfer of Learning and the post test scores in critical thinking skills in terms of Recognizing assumption, Evaluating arguments and Drawing of conclusions. The obtained R-values signify that there is no significant relationship between perception of SBL Approach as to gaining attention (r= 0.098), presenting the

stimulus (r=-0.083), enhancing transfer of learning (r=0.066) and weak negative relationship on informing learners of the objectives (r=-0.204) to recognizing assumptions.

The data also reveal that perceived used of SBL approach as to gaining attention (r=0.227) and presenting the stimulus (r=0.262) has a positive weak relationship to evaluating assumptions while Informing Learners of the Objectives (r=0.164) and Enhancing and Transfer of Learning (r=-0.073) has no significant relationship to evaluating assumptions. In addition, only the perceived use of SBL as to gaining attention (r=0.318) has a positive relationship on drawing conclusions while Informing Learners of the Objectives (r=-0.046), Presenting the Stimulus (r=0.162) and Enhancing and Transfer of Learning (r=0.016) has no significant relationship to drawing of conclusions in the critical thinking skills.

The overall data reveal that the learners perceived used of SBL approach has no significant relationship on learners post test scores in the critical thinking skills. Though some of the parameters have significant relationship such as gaining attention to evaluating arguments, presenting the stimulus to evaluating arguments and gaining attention to drawing of conclusions. The researcher appropriately directed the students in class, giving them all the time they needed to complete the survey on learners' perceptions of the SBL approach that was being used. The questions raised also by the students were properly addressed during the conduct of survey. Their positive perception to the video lesson can be evidently observed as most of the students listed the category "Observed" that means they understood and digested well the video lesson and questions on the survey.

The researcher also noticed the strong confidence level of the students during the administration of posttest questionnaires. The students thus, exchanged their papers after accomplishing the posttest to limit the errors on the collection of posttest data. It is apparent also that the students had a high scores in their posttest as they mostly tallied an "outstanding, and very satisfactory" rating. It can be noted that SBL approach entice learners in developing their critical thinking skills. SBL approach can help learners in developing critical skills but as the data shows students perception has no significant relationship to the posttest scores. Thus, it implies that student's perception does not affect the result of post test scores. While most students do not take surveys seriously because they are mindful that it is not recorded and their opinions will not affect their grades. On the contrary, students take posttests more seriously because they were fully aware that their answers will be recorded.

Table 3. Test of Relationship between the Perceived Use of Scenario- based Learning Approach to the Post test Score in the Critical Thinking Skills

	Recognizing Assumptions	Evaluating Arguments	Drawing Conclusion
Gaining Attention	0.098	0.227	0.318*
Informing Learners of the Objectives	-0.204	0.164	-0.046
Presenting the Stimulus	-0.083	0.262	0.162
Enhancing and Transfer of Learning	0.066	-0.073	0.016

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

Conclusion

The study focused on Scenario-Based Learning Approach in Enhancing the Critical Thinking Skills of Grade 9 Students in Araling Panlipunan. Majority of the student's perception on the use of Scenario Based- Learning Approach as to gaining attention, informing learners of the objectives, presenting the stimulus, and enhancing retention and transfer of learning coincide under "Observe".

The pre-test of students in Economics before being exposed on Scenario- Based Learning Approach as to: recognizing assumptions; evaluating arguments; and drawing are mostly

under "Fairly Satisfactory and did not meet Expectations. However, post test scores of students in Economics after being exposed on Scenario- Based Learning Approach as to: recognizing assumptions; evaluating arguments; and drawing got most on the level "Outstanding and Very Satisfactory".

There is a significant difference between pre-test and post test scores of the students in Araling Panlipunan before and after being exposed to scenario-based learning approach. There is no significant relationship between the students' perception on the use scenario-based learning approach and their post test scores in the critical thinking skills in Araling Panlipunan. Only gaining attention has a significant relationship to drawing of conclusion. This implies that learners became attentive and observant as they watch the video lesson. Thinking carefully, discussing ideas, refining understanding, reflecting on progress and drawing their conclusion is the main purpose of SBL approach. This approach become more effective in critical thinking skills as learners had been able to remember, reason and pay attention to the video lesson. Informing learners of the objectives, presenting the stimulus, enhancing and transfer of learning has no significant relationship to recognizing assumptions, evaluating arguments and drawing of conclusion.

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