INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume IV, Issue I
August 2022
Available online at https://www.instabrightgazette.com

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IMPROVING THE PERFORMANCE OF THE GRADE 9 STUDENTS THROUGH LANGUAGE-STRATEGIES INTEGRATED SCIENCE LEARNING ACTIVITY SHEETS IN THE NEW NORMAL

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ABSTRACT

This action research aimed to assess and improve the performance of grade 9 students through the teacher-made language- strategies integrated science learning activity sheets. The study was conducted in Las Nieves National High School. Four (4) weekly learning activity sheets for Grade 9 Science Quarter 1 were developed and validated by the school evaluation committee based on the criteria in validating print resources. A 50-item pre-test were given prior to the administration of the Weekly Learning Activity Sheets. After which, a 50-item post-test was administered to the same students. The scores of the pre-test and post-test were gathered, tabulated and analysed through statistical procedure t-test.

The result of the study shows that there is a statistical difference between the pre-test and post- test results of the performance level of the participants as evidenced by its significant value of 0.000 which is less than 0.05 level of significance set for data analysis. The null

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hypothesis which states that "there is no significant difference between the pre-test and post-test result of the participants "is rejected.

Thus, this implies that the language-strategies integrated learning activity sheet is an effective instructional material to improve the performance level of the students.

1.CONTEXT AND RATIONALE

The Philippines has 27 million learners, which necessitates unwavering commitment, passion, and accountability in basic education alone. However, it reiterates its position: "Education cannot be postponed." We will lose human capital if we stop learning." Meeting the needs of the most vulnerable groups in these times is critical to attaining SDG4.

The Department of Education concurred with UNESCO's stance that excellent education should not be sacrificed in times of crisis, and that doing so would harm human capital. As a result, the Department affirms that the Sulong Edukalidad framework would liberate Philippine basic education services. It will keep working to generate comprehensive Filipino students with 21st-century capabilities.

However, the Philippine K-12 Curriculum, which has been in operation for at least three years since its inception in 2016, appears to be in demand for directing learning in a holistic perspective. The focus of this session was on the inextricable link between language and learning. Science is a topic relies heavily on the English language to convey scientific concepts and

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principles. As a result, recognizing the relationship between English language proficiency and scientific principles and concepts is crucial to grasping and comprehending scientific ideas and notions.

So, this connection is critical because it serves as the anchor and basis for how teachers may effectively teach students scientific concepts and ideas using a language learning technique that is relevant to the students' progress in science. Furthermore, as a means of lowering the language barrier of students, particularly Filipino students who have limited proficiency in the use and understanding of the English language, the gap between learning and language need to be addressed.

With these, teachers have a critical role in shaping the competence of the students. There have been numerous attempts to improve the method for reaching students' cognitive levels, and the search for a better approach in delivering the best teaching-learning strategies to achieve higher standards of performance by providing them with the experiences required for lifelong learning continues

Moving forward, language is a system of traditional spoken, physical, or written symbols through which human beings express themselves as members of a social group and participants in its culture. Language is important in the construction and growth of conceptions, according to (Oyoo 2015). He went on to say that once learners have a basic understanding of the language

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of learning and teaching, everything else falls into place. In addition, we used a variety of linguistic tactics in this study, including Key Concept, Profiling, and Categorization, among others.

Learners, on the contrary, regard scientific to be a challenging topic because science phrases are confusing to them. They are perplexed by word meanings in science because words can have numerous meanings. Learners, on the other hand, find science difficult to learn and comprehend because the medium is English, which is the learner's second language.

To address the gap the researchers are committed to increase the grade 9 students' science performance through the development of learning activity sheets that use various language strategies in the modular distance learning to reflect greater science knowledge.

2. ACTION RESEARCH QUESTIONS

The purpose of this study is to assess and improve the performance of grade 9 students through the developed language- strategies integrated science learning activity sheets.

Specifically, the study sought to answer the following questions:

1. What is the level of performance of grade 9 students before the administration of the language-strategies integrated science learning activity sheets?

2. What is the level of performance of grade 9 students after the administration of the language-strategies integrated science learning activity sheets?

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3. Is there a significant difference of the assessment of the learning activity sheet using language strategies to the level of performance of the grade 9 students?

Ho: There is no significant difference on the performance level of the Grade 9 students before and after the conduct of the language strategies integrated learning activity sheets in science.

3.PROPOSE INOVATION, INTERVENTION AND STRATEGY

The researcher would like to propose an action plan which utilize the development of learning activity sheets with the integration of the different language strategies for a better understanding of the lesson of the subject.

The language strategies such as key concept, framing, categorization, profiling, etc. will be integrated and applied in the development of learning activity sheets in science for grade 9 students. This LAS will undergo validity and reliability test that will done through quality assurance validation with the experts in the field of science and language.

The language strategies was taken from the one of the training initiated by Department of Science and Technology – Science Education Institute under their program of Science Teacher Academy for the Regions (STAR) where they have presented innovated language strategies suitable for teaching the subjects.

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This intervention will provide the students comprehension and application of the lesson to improve the academic performances of the students particularly in science.

4.ACTION RESEARCH METHODS

Sampling and Participants

This study was conducted in the Las Nieves National High School, Las Nieves , Agusan del Norte. This is limited to the Grade 9 students only in the school year 2021-2022 and who are experiencing the new normal distance learning modality. The researchers randomly selected 30 participants in Grade 9 students from the five different sections that will undergo modular-printed distance learning.

Data Gathering Methods

This study utilized the teacher-made and quality assured learning activity sheets with the integration of language strategies. The researcher also used the standardized test questionnaire for the conduct of the pre-test and post-test to identify the significant differences of the student's performance.

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Data Analysis

The gathered data gathered was entered to a spreadsheet to facilitate the analysis. The latest Microsoft Excel was used for the data analysis in identifying of the significant difference of the two means. Descriptive and inferential statistics were used to analyze the data.

To quantify the data, the researcher used a frequency counts, percentages, and mean which the mean score were used to determine average responses of the respondents and paired t-test for paired observation in comparing the means of the two variables.

4. DISCUSSION OF RESULT AND REFLECTION

Problem 1: What is the level of performance of grade 9 students before the administration of the language-strategies integrated science learning activity sheets?

Table 1

Pre-test and Post-test Performance Level of the Participants

	N	Mean
Pre-test	30	14.9
Post-test	30	32

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The table 1 shows that the average score for the pre-test conducted to the twenty five participants is 14.9 which shows lower than the average score of the post-test taken. This means that the students has low scores during the pre-test.

Problem 2: What is the level of performance of grade 9 students after the administration of the language-strategies integrated science learning activity sheets?

The table 1 also suggest that the average score for the post-test is 32 which shows significantly higher than the average score of the pre-test taken. This means that the students garnered high scores after the conduct of intervention through their post-test result.

Problem 3: Is there a significant difference of the assessment of the learning activity sheet using language strategies to the level of performance of the grade 9 students?

Table 2

Significant Difference Between the Pre-test and the Post-test Result of the Participants

	N	df	Sig. (2-tailed)	Interpretation	Decision
Pre-test-Post-test	30	58	0.000 ($1.19E^{-19}$)	Significant	Reject null hypothesis

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It can be observed in table 2 that there is a statistical difference between the pre-test and post- test results of the performance level of the participants as evidenced by its significant value of 0.000 which is less than 0.05 level of significance set for data analysis. The null hypothesis which states that "there is no significant difference between the pre-test and post-test result of the participants " is rejected .

Thus, this implies that the language-strategies integrated learning activity sheet is an effective intervention strategy to enhance the performance level of the students.

5. ACTION PLAN/ACTIVITIES

Activities	Time Frame	Persons Involved	Expected Output
Presentation of Research Results and Findings and Signing of School Memorandum of Understanding	July 2022	All Researchers	Approved Research Signed MOU
SLAC for the Research Presentation on the Results and Findings	August 2022	Principal and Teachers	Schedule of Activities

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Revision of LAS	August 2022	Teachers	Revised LAS with Language Strategies Integration
Reproduction of LAS for 1st Quarter	September	Teachers	Language Strategies Integrated LAS
Implementation of LAS for 1st Quarter	September-November 2022	Teachers	
Learning Activity Sheets development and validation in 2nd Quarter	November 2022	Principal/Master Teacher/ Researchers	Revised LAS with Language Strategies Integration
SLAC for the Research Presentation on the Results and Findings	June 2023	Principal and Teachers	Reflection and Evaluation

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