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Learning Attitude as Predictor on the Academic Performance of Grade V Pupils in Science

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Abstract —The study aimed to determine the learning attitude as predictor in the academic performance of Grade V pupils in Science. Utilizing the descriptive-correlational research design for an in-depth analysis of the study, the researcher used the Attitude Scale Test based on H.H. Remmers and Ella B. Silanco (2005) and Quarter 3 grades of the pupils in Science. Simple Percentage, Weighted Mean and Pearson r were the statistical tools used. The data revealed that the learning attitude of the Grade V pupils in Science in terms of learning environment, self-concept, practical work, importance and attitude towards Science is good or seldom perceived while all of the pupils were able to achieve a passing grade in Science. Moreover, this study shows a significant relationship between learning attitude and performance of the Grade V pupils in Science. Thus, with further stimulation, the academic performance may increase if the learning attitude is appropriately practiced.

Keywords — Learning Attitude, Predictor, Academic Performance, Grade V Pupils, Science

I. Introduction

A **good science teacher provides learning experiences or situations that will ensure understanding among learners. It requires rich environment and instructional materials and devices that will challenge the attention of the learners, stimulate thinking, and make learning more meaningful.** The question regarding ways to improve competence among our science teachers has been widely given attention. The most popular notion about science teaching is the act of transferring knowledge and information to learners. Another school of thought defines teaching as the act of guiding students towards a love for learning and how to acquire learning skills or learning capability.

In the Philippines, the government has led efforts to enhance the competence of science teachers through various in-service training programs. These in-service training programs conducted by the Regional Science Teaching Centers (RSTC), UP-National Institute for Science and Mathematics Education Development (UP-Nismed), Department of Science and Technology-Science Education Institute (DOST-SEI) and the Department of Education-Bureau of Elementary

Education (DepEd) were interventions aimed at updating and upgrading the competencies of science teachers in terms of content, process skills and thinking skills (Bell, 2008).

There is no other subject in the education curriculum today of our country that has drawn much attention than Science. Its aim is not only to produce more Scientists and Technologists but also to produce a new generation of enlightened Filipinos who are scientifically literate and who are better prepared to function in a world that is increasingly influenced by Science and Technology (Woods, 2006). However, the Filipinos are in crisis today because the state of science education in the Philippines is discouragingly poor as assessed by a renowned Filipino scientist both local and international. Results of the Third International Mathematics and Science Study (TIMMS) held recently showed the Philippines in the 38th rank among 40 countries studied.

In Pilit Elementary School, Sta. Fe Leyte, the science teachers are faced with the teaching-learning problems. One of the ways identified is the teachers' competence in teaching that is believed to increase performance and favorable attitude of students towards science. Consequently, in the process of teaching science we should develop in the students a range of interpersonal skills based on the type of learning strategies and discipline they are specializing. The academic performance and attitudes of learners in any subject are dependent on the competence of a teacher teaching the subject.

As a science teacher for more than five years, the researcher will try to find some means of helping the students to achieve better in science subject. One of the ways is that is to find out the status of the academic performance and attitudes of Grade Five pupils in science which is believed to increase the chance of high performance and favorable attitude of pupils towards science.

It is in the rationale that the researcher who is currently teaching in the above mentioned local, would like to delve worthy research undertaking that will benefit the school he is currently teaching and that of his Graduate Program.

This study determines the learning attitude as predictor in the academic performance of Grade V pupils in Science subject in Pilit Elementary School, Sta. Fe District, Leyte Division. A proposed intervention plan was formulated based on the findings of the study.

Specifically, this study sought to answer the following questions:
1. What is the level of learning attitude of Grade V pupils towards Science subject with reference to:
   2.1 Learning Science in school;
   2.2 Self-concept in Science;
   2.3 Practical work in Science;
   2.4 Science outside school;
   2.5 Future participation in Science;
   2.6 Importance of Science; and
   2.7 Attitude towards schooling?

2. What is the academic performance of the Grade V pupils in Science?
3. Is there a significant relationship between the learning attitude and academic performance of Grade V pupils in Science?
4. What intervention plan can be proposed based on the findings of this study?

Methodology

Design. This study employed the descriptive-correlational research design employing quantitative data to determine the learning attitude as predictor in the academic performance of Grade V pupils in Science subject. Pilit Elementary School of Sta. Fe District, Leyte Division is the main locale of the study. The thirty-one (31) Grade V pupils enrolled in SY 2018-2019 in the said locale are the main respondents of the study and the Attitude Scale Test of H.H. Remmers and Ella B. Silanco (2005) and the grades in Science for the 3rd quarter were utilized. This research focused in determining the learning attitude and academic performance of Grade V pupils in Science and its relationship. A Proposed Intervention Plan based on the findings of the study is the output.

Sampling. There are 31 pupils involved in this study. The research instruments were distributed personally with consent from the parents stating the participation of their child in the study.

Research Procedure. The researcher prepared the research design and tools to be utilized in the study. Approval and recommendation from the Panel of Examiner of the Graduate Studies was sought. A letter request to conduct this study was forwarded to the Office of the Schools Division Superintendent. Upon approval, permission from the District Supervisor and School Head was secured before the actual gathering of data. Validation of the instruments through the School Head and District Supervisor was sought. Orientation of the participants and administration of the questionnaire was done. Permission from the parents was secured. After accomplishing the survey, the researcher collected. Data were tallied and submitted for statistical treatment. Analysis and Interpretation of Data. Making of Proposed Intervention Plan followed.

Ethical Issues. The right to conduct the study was strictly adhered through the approval of the Schools Division Superintendent of the Division, District Supervisor of the District, and school principal. Orientation of the respondents was done using face to face modality. In the orientation, issues and concerns were addressed and consent to be included in the study were signed.

Treatment of Data. The Simple Percentage and Weighted Mean were employed to determine the learning attitude and academic performance of Grade V pupils in Science subject. Pearson r was used to determine the significant relationship between the dependent and independent variables of the study.

II. Results and Discussion

Table 1
Learning Attitude Towards Science

STATEMENTS	Weighted Mean	Description	Interpretation
A. Learning Environment			
1. I learn interesting things in science lessons	3.00	Seldom	Good
2. I look forward to my science lessons.	2.80	Seldom	Good
3. Science lessons are exciting.	3.00	Seldom	Good
4. I like to do more science related activities in school	3.00	Seldom	Good
5. I like Science better than most other subjects at school.	2.80	Seldom	Good
6. Science is fun	2.70	Seldom	Good
Average	**2.88**	**Seldom**	**Good**
B. Self-concept in Science			
7. I find science easy.	2.80	Seldom	Good
8. I am doing good in Science.	2.70	Seldom	Good
9. I get good marks in Science.	3.00	Seldom	Good
10. I learn Science quickly.	3.10	Seldom	Good
11. Science is one of my best subjects.	2.90	Seldom	Good
12. I feel helpful when doing Science projects.	3.10	Seldom	Good
13. In my Science class, I understand everything.	2.90	Seldom	Good
Average	**2.91**	**Seldom**	**Good**
C. Practical Work in Science			
14. Practical work in science is exciting.	2.80	Seldom	Good
15. I like science practical work because you don't know what will happen.	3.20	Seldom	Good
16. Practical work in science is good because I can work with my friends.	3.30	Seldom	Good
17. I like practical work in science because I can decide what I can do.	2.70	Seldom	Good
18. I like more practical work in my science lessons.	2.70	Seldom	Good
19. We learn science better when we do practical work.	3.30	Seldom	Good
20. I look forward to doing science practical works.	3.00	Seldom	Good
21. Practical work in science is liberating.	2.90	Seldom	Good
Average	**2.99**	**Seldom**	**Good**
D. Importance of Science			
22. Science and technology is important for society.	4.40	Always	Excellent
23.Science and technology makes our lives easier and more comfortable.	4.30	Always	Excellent
24. The benefits of science are greater than the harmful effects.	4.00	Often	Very Good
25. Science and technology are helping the poor.	3.00	Seldom	Good
26. There are many exciting things happening in science and technology.	4.00	Often	Very Good
Average	**3.94**	**Often**	**Very Good**
G. General Attitude Towards SCIENCE			
27. I really like science.	3.60	Often	Very Good

28. I would recommend this subject.	3.60	Often	Very Good
29. I find science EXCITING.	3.70	Often	Very Good
30. I feel that I am good in this subject.	3.90	Often	Very Good
31. Most of the time I want to be in science class.	3.80	Often	Very Good
32. I get on well with most of my teachers in science.	3.90	Often	Very Good
33. I am normally happy when I am in science class	3.70	Often	Very Good
34. I work as hard as I can in science class.	3.70	Often	Very Good
Average	**3.73**	**Often**	**Very Good**
GRAND MEAN	**3.12**	**Seldom**	Good

Legend:

RANGES	DESCRIPTION	INTERPRETATION
4.21-5.00	Always	Excellent
3.41-4.20	Often	Very Good
2.61-3.40	Seldom	Good
1.81-2.60	Rarely	Fair
1.00-1.80	Never	Poor

Table 1 presents the learning attitude of the Grade V pupils in Science subject in terms of learning environment, self-concept, practical work, importance, and general attitude. It was revealed on the table that the learning attitude of the Grade V pupils in Science subject in terms of learning environment has an average mean of 2.88 which is interpreted as good. This means that the Grade V pupils seldom find interested in Science subject. This implies that the learning environment where pupils most of the time do their school tasks and other activities did not meet the expected qualification as conducive to learning. This implies further that the learning environment needs to be improve to cater the needs of the pupils while learning.

Moreover, this table also shows the learning attitude of the pupils in terms of self-concept in Science. It was revealed on the table that self-concept in Science has an average mean of 2.91 which is interpreted as good. This means that the Grade V pupils seldom find the subject easy and helpful especially in making projects and in understanding the concept. This implies that these pupils had limited understanding in terms of Science concepts.

Further, the table also shows the learning attitude of the Grade V pupils in terms of practical work in Science. It was revealed on the table that practical work in Science has an average mean of 2.99 which is interpreted as good. This means that the Grade V pupils rated these indicators seldom did practical works. This implies that these pupils need hands on activities where they can manipulate the materials they are using while doing their practical works.

Additionally, the table also shows the learning attitude of the Grade V pupils in terms of importance in Science. It was revealed on the table that the importance in Science as indicator for learning attitude has an average mean of 3.94 which is interpreted as very good. This means that the listed indicators are often done or achieve by the pupils. This implies that they often acknowledge that Science is helpful in making things and work easier and everything around us needs Science.

Finally, the table shows the learning attitude of the Grade V pupils in Science in terms of the general attitude towards the subject. It was revealed on the table that the general attitude of the

Grade V pupils towards Science has an average mean of 3.73 which is interpreted as very good. This means that these pupils often feel good and happy while learning the subject. This implies that through the love for the subject, their performance will improve.

Table 2
Academic Performance of the Grade V Pupils I Science Subject

Grades/Ratings	Description	Frequency	Percentage
95-100	Advance/	0	0
90-94	Outstanding	3	10
85-89	Proficient/Very Satisfactory	10	32
80-84	Approaching Proficiency/ Satisfactory	12	39
75-79	Developing/ Fairly Satisfactory	6	19
Total		**31**	**100**

Table 2 presents the academic performance of the Grade V pupils in Science subject. It was revealed on the table that none of the pupils got a grade of 95-100. Among the 31 Grade V pupils, 3 or 10% got a grade of 90-94 which is Outstanding, 10 or 32% got the grade of 85-89 which is interpreted as proficient or very satisfactory while 12 or 39% got a grade of 80-84 which is satisfactory or approaching proficiency and 6 or 19% got a grade of 75-79 which is developing or fairly satisfactory. This means that all of the 31 Grade V pupils has a passing grade in Science. This implies that since it is already in the 3rd quarter, most of the pupils have shown interactive dynamics, excitement and enthusiasm for the topics during this period are challenging.

Table 3
Test of Relationship

Variables Correlated	r	Computed Value or t	Table Value @0.05	Decision on Ho	Interpretation
Academic Performance and learning Environment	0.74	4.233	2.36	Reject Ho	Significant (Very Strong)
Academic performance and Self Concept	0.76	5.262	2.36	Reject Ho	Significant (very Strong)
Academic performance and Practical Work	0.81	5.951	2.36	Reject Ho	Significant (Very Strong)
Academic performance and Importance of Science	0.52	3.19	2.36	Reject Ho	Significant (Strong)
Academic performance and General Attitude in Science	0.65	3.63	2.36	Reject Ho	Significant (Strong)
Academic Performance and Learning Attitude	0.70	4.513	2.36	Reject Ho	Significant (very Strong)

Table 3 presents test of relationship between the learning attitude in terms of learning environment, self-concept, practical work, importance, general attitude and academic performance of the Grade V pupils in Science subject. It was revealed on the table that the learning attitude and academic performance of the Grade V pupils in Science subject has a computed value or t of 4.513 which is greater that the table value of 2.36 at .05 level of significance, so null hypothesis is rejected. This means that there is a significant relationship between the learning attitude and academic performance of the Grade V pupils in Science subject. The r value of 0.70 shows a very strong significant relationship. This implies that further stimulation and positive attitude towards the subject help improve academic performance. More often than not, science learning and its nature call for dynamic application of interactive sessions. A chance where students can inquire, ask question, do experiment and be creative in a lot of ways. These are activities in which most of our pupils are enjoying and looking forward of doing.

The table also presents the test of relationship between the learning environment and academic performance of the Grade V pupils in Science subject. It was revealed on the table that the learning environment and academic performance of the Grade V pupils in Science has a computed value or t of 4.233 which is greater that the table value of 2.36 at .05 level of significance, so null hypothesis is rejected. This means that there is a significant relationship between the learning environment and academic performance of the Grade V pupils in Science subject. The r value of 0.74 shows a very strong significant relationship. This implies that the learning environment played a motivating role in providing conducive learning atmosphere to the students which motivates them to do their work in order to improve their performance.

Moreover, this table also shows the test of relationship between self-concept and academic performance of Grade V pupils in Science subject. It was revealed on the table that the self-concept and academic performance of the Grade V pupils in Science has a computed value or t of 5.262 which is greater that the table value of 2.36 at .05 level of significance, so null hypothesis is rejected. This means that there is a significant relationship between the self-concept and academic performance of the Grade V pupils in Science subject. The r value of 0.76 shows a very strong significant relationship. This implies that the ability of the pupils to create their own mind concept through memory and recall has greatly helped in improving their academic performance.

Further, this table also shows the test of relationship between practical work and academic performance of the Grade V pupils in Science subject. It was revealed on the table that practical work and academic performance of the Grade V pupils in Science has a computed value or t of 5.951 which is greater that the table value of 2.36 at .05 level of significance, so null hypothesis is rejected. This means that there is a significant relationship between the practical work and academic performance of the Grade V pupils in Science subject. The r value of 0.81 shows a very strong significant relationship. This implies that pupils who are exposed to hands on activities can immediately understand the concept hence academic performance will improve. This implies further that engaging pupils in the activities helps improve academic performance.

Additionally, the table shows the test of relationship between importance of Science and academic performance of the Grade V pupils. It was revealed on the table that importance in Science and academic performance of the Grade V pupils has a computed value or t of 3.19 which is greater that the table value of 2.36 at .05 level of significance, so null hypothesis is rejected. This means that there is a significant relationship between the importance in Science and academic performance of the Grade V pupils. The r value of 0.52 shows a strong significant relationship. This implies that pupils should be aware on the importance of Science in their daily lives and they should try themselves to understand the concept being presented in the lesson for them to apply their learnings.

Finally, the table shows the test of relationship between the general attitude and academic performance of the Grade V pupils in Science subject. It was revealed on the table that the general attitude and academic performance of the Grade V pupils in Science has a computed value or t of 3.63 which is greater that the table value of 2.36 at .05 level of significance, so null hypothesis is rejected. This means that there is a significant relationship between the general attitude and academic performance of the Grade V pupils in Science subject. The r value of 0.65 shows a strong significant relationship. This implies that the imbibed spirit and enthusiasm in learning the subject significantly affects the performance of the pupils in passing the subject.

III. Conclusion

The learning attitude of the grade five pupils towards science subject was evaluated as good. The rating speaks of moderate interest in science subject. Such good learning attitude is translated to the satisfactory performance of the grade five pupils. This is a good indicator that further stimulation of learning attitude could significantly increase and enhance the performance of the pupils. Hence, it can be concluded that the learning attitude of the grade five pupils towards science subject is a potential indicator of their academic performance in the subject.

IV. Recommendations

1. The proposed intervention plan formulated should be utilized.
2. Teachers should integrate interesting activities in Science lessons.
3. Teachers should provide the pupils with scientific and investigative activities in school.
4. Teachers should utilize interactive learning activities and be able pupils to create meaningful and hands-on assessment.
5. Teachers should enrich instructional resources and references, encourage pupils to do practical work.
6. The school should create or organize Science club.
7. Teacher should utilize varied teaching strategies in science teaching and utilize effective instructional materials.
8. Homogeneity of sampling could have been sought in two groups that will utilize experimental group for effective findings to occur.
9. The teachers in science could have been involved so as to triangulate the validity of the data; and
10. Future researchers should replicate this study to include different locale and include different variables aside from the mentioned in this study.

REFERENCES

[1] Bell, B., (2008). Teacher Development in Science Education. International Book for Science Education. Part Two. Kluver Academic Publishers.

[2] Regional Science Teaching Centers (RSTC), UP-National Institute for Science and Mathematics Education Development (UP-Nismed), Department of Science and Technology-Science Education Institute (DOST-SEI) and the Department of Education-Bureau of Elementary Education (DepEd-BEE)

[3] Woods, D. R. (2006) Problem-based Learning: resources to gain the most from PBL. Ontario: Waterdown.

AUTHOR'S PROFILE

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The author was born on June 29, 1992 at Brgy. Poblacion, Kananga, Leyte, Philippines. He finished his Elementary Education at Kananga Central School, Poblacion, Kananga, Leyte in the year 2004. He earned his secondary education in Kananga National High School,Poblacion,Kananga,Leyte in the year 2008. He graduated with the degree in Bachelor in Elementary Education specialized in General Education at Western Leyte College of Ormoc, Ormoc City, Leyte, Philippines in the year 2015. He completed his Academic Requirements for his Masteral Degree major in Education Administration and Supervision and finished his thesis at Western Leyte College of Ormoc, Ormoc City, Philippines.

He is currently a Teacher – III in Kananga Central School, Kananga I District handling Grade Two learners. He is also entrusted with the following ancillary works in school such as being the Brigada Eskwela Coordinator and School Information Officer.

He received several awards in the District and Division Level as coach in journalism competition.