

Aghamazing Technique in Improving Academic Performance of Grade 9 Students in Science

ANGELITO S. MANALASTAS, Ph.D.¹

¹Department of Education, Salapungan National High School, Schools Division of Pampanga

Abstract:- This study was conducted to determine the effectiveness of AGHAMazing technique in improving the academic performance of Grade 9 students in science.

The study used the experimental method of research comparing the AGHAMazing technique to traditional technique in teaching science. A teacher-made pre-test and post-test employed to check the performance of the students who participated in the study. T-test analysis was used by the researcher to compare the significant difference between the two variables. Results of the pre-test and post-test revealed that AGHAMazing technique is more effective method in improving the academic performance of Grade 9 students in science compared to traditional method.

The study recommends that science teachers can use/ try updated and relevant teaching techniques to uplift the academic performance of the students. Personnel in the Department of Education should initiate programs/ activities, trainings and seminars to equip the teachers with latest trends, issues and concerns to further stimulate their teaching competency especially in the conduct of teaching-learning process. In addition, this will develop the teacher to become 21st century teacher to produce 21st century students. Collaborate with the LGU's and NGO's to sponsor/ donate multi-media equipment like computers, TV monitor and others to be used by the teachers and students inside the classroom.

Keyword:- AGHAMazingTechnique, Academic performance, Grade Nine Science.

I. INTRODUCTION

The world is a grand arena for exposition, exploration and experimentation and education serves as an ultimate weapon for any desired change in the society. Moreover, education of our youth will be the most powerful instrument for economic stability and sustainable development.

The school being a great avenue in the conduct of teaching-learning process and training ground to produce quality education for the youth of today. As cited by Gutierrez (2010), the school environment, attractive classroom, updated instructional materials and teachers' dedication play an important role for an effective deliberation of quality education.

In the context of Philippine Educational System, science is one of the major subjects being taught in the school curriculum. It caters information on both internal and external world and it provides scientific explanation on natural phenomenon for the people to analyze, realize and appreciate the value of life using science concepts and ideas.

But inspite of the fact that the teachers give much of his dedication and commitment in rendering quality instruction to the students coupled with appropriate teaching aids and devices, conducive classroom learning environment, still, there is a problem in the performance of the students. Based from the result, the proficiency level of students in science is low (proficiency level for 1st grading, mean-30.76 and PL-61.41) as compared to the standard one. It is quite alarming that despite of the efforts exerted by the teacher, the students' achievement cannot reach the standard proficiency level.

Thus, the researcher is anticipating that there is something lacking about the delivery of teaching technique/ strategy employed by the science teachers in teaching science. In consonance, the researcher is proposing a new teaching technique named "*AGHAMazing Technique*" which may be employed in teaching science lessons.

AGHAMazing technique includes discovery-participative approach with computer aided instruction. This caters students' active participation in the discovery of new scientific information with the help of teacher who only act as facilitator. This new technique may arouse the interest of the students relative to learning science because of their personal involvement in the conduct of classroom recitation.

The researcher utilized the new teaching technique and compared it to the traditional method of teaching to test the effectivity in uplifting the proficiency level of Grade 9 students in science.

II. STATEMENT OF THE PROBLEM

The ultimate aim of this study is to determine the effectiveness of *AGHAMazing Technique* to increase the proficiency level of Grade 9 students in Science at Salapungan High School, S.Y. 2015-2016.

Specifically, it sought answer to the following questions:

- How may the pre-test results of the control group and experimental group be described before the conduct of this study?
- How may the post- test results of the control group and experimental group be described after the conduct of this study?
- Is there a significant difference on the pre-test and post-test result before and after the conduct of this study?

A. Hypothesis

This study is guided by the hypothesis:

- There is no significant difference exists on the pre-test and post-test of Grade 9 students in science before and after the conduct of this study.

B. Significance of the Study

This study will be essential and important in the field of science education. It will show the effects of the new proposed technique in teaching science in uplifting the proficiency level of the students. Findings and results of this study will ultimately benefit the following:

- **Students.** They are the primordial beneficiaries as respondents of this study. The knowledge and experiences gained may use by the students to motivate themselves to strive harder in their studies. Moreover, this will serve as motivation to uplift their performance in science.
- **Parents.** The findings of the study will be beneficial for parents to be aware on the education of their children using various techniques in teaching science.
- **Teachers.** The result of the study may serve as a guide to remind teachers on their role in providing quality education using various, updated and relevant teaching techniques in teaching science. In addition, teacher, being the backbone of the teaching-learning process may motivate the students to uplift their performance in science.
- **School Administrators.** The findings of the study will be beneficial to the administrators in managing their respective institution and serve as an opportune venue to encourage teachers to teach with dedication in meeting the needs of the students.
- **Community.** The study will also be important to the community as a whole, because quality students will be an asset of the society in towards nation-building.

- **Future Researchers.** The researcher ultimately believes that the results of this study will help the future researchers to conduct an in-depth study or similar subject using other variables.

III. DEFINITION OF TERMS

To shed the light in understanding, the following operational definitions are hereby presented.

- **Academic Performance.** This refers to the overall achievement obtained by the students in terms of grades or scores.
- **AGHamazing Technique.** It includes discovery-participative approach with computer aided instruction. This caters students’ active participation in the discovery of new scientific information with the help of teacher who only act as facilitator.
- **Post-test.** It refers to the examination constructed by the teacher and administered after the discussion of a particular lesson or subject matter.
- **Pre-test.** Refers to the teacher-made exam administered before the discussion of the lesson.
- **Science.** A particular discipline or subject taught inside the school in the education curriculum.
- **Traditional Way of Teaching.** This refers to the old method of teaching employed in the classroom which is obsolete and does not effective anymore for classroom setting.

IV. RESEARCH DESIGN

This study utilized experimental method of research. According to Manuel (2008), experimental research use to discover the influence of one or more factors upon a condition, group or situation in order to discover “what will be.” This was utilized to show the effectiveness of the new proposed technique in teaching science to uplift the quality of instruction.

A. The Participants

This study actively participated by the Grade 9 students – section Wisdom and Faith of Salapungan High School, Candaba, Pampanga, S.Y. 2015-2016 who were grouped heterogeneously.

Table 1: Table of Respondents

Respondents	Total Number of Students	Sample size
Grade 9 – Wisdom	52	52
Grade 9 – Faith	52	52

B. Data Collection

Upon the approval of the action research proposal, the researcher administered the pre-test on the two participating group. The researcher taught science lessons in different technique, control group exposed to traditional method while the experimental group using the

AGHamazing technique. At the end of the grading period, the researcher administered the post-test to check the effectiveness of the new proposed teaching technique used in science teaching. The data gathering consumed the first grading period, it started on June 2015 and last until August 2015.

C. Instrument

The researcher used the results of pre-test and post-test treated statistically. A teacher's made test used by the researcher for the pre-test and post-test.

D. Data Analysis

This study utilized t-test analysis to determine the effectiveness of the new proposed technique in teaching science.

Table 2 presents the results of the pre-test and post-test using the traditional method of teaching. The pre-test result is 45.78 while the post-test is 61.20 with a difference of 15.42. This implies that there is an increase in the performance of the students after teaching the lesson. In addition, the students learn the facts, knowledge and information taught by the teacher.

V. RESULTS AND DISCUSSION

This part presents the results of the study on the comparative analysis of academic performance of students in Science using traditional method vs. the AGHAMazing technique. Statistically, the problems of the study were answered by the following data gathered by the researcher.

Table 2: Results of the Pre-Test and Post-Test Using the Traditional Method of Teaching

Traditional Method of Teaching				
Grade 9- Faith	N	Pre-Test	Post-test	Difference
	52	45.78	61.20	15.42

Table 3 shows the results of the pre-test and post-test using AGHAMazing Technique. As you gleaned on the table, the pre-test result is 46.70 and the post-test is 80.50 with a difference of 33.80.

It can be noted from the table that there is a tremendous increase in the performance of the Grade 9 Wisdom students after subjecting them to the new proposed technique named AGHAMazing technique.

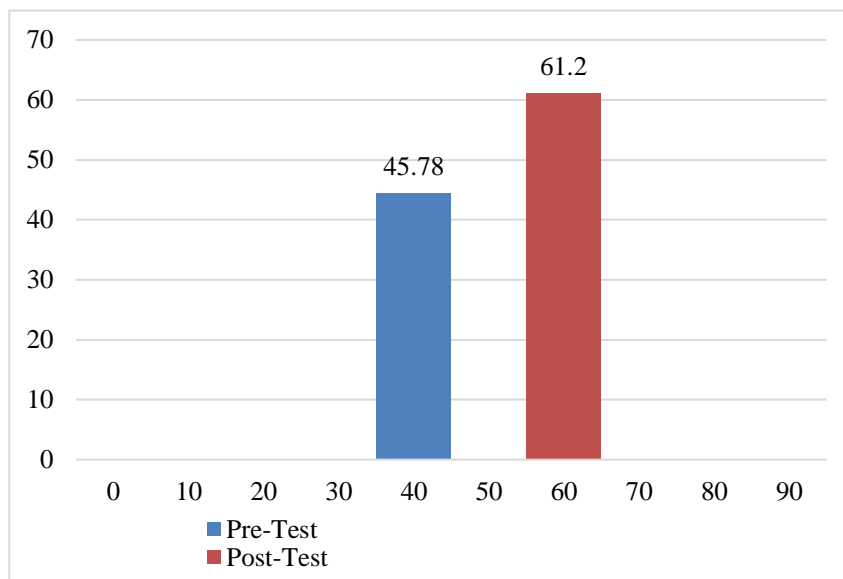


Fig. 1: Results of the Pre-Test and Post-Test Using the Traditional Method of Teaching

Table 3: Results of the Pre-Test and Post-Test Using AGHAMazing Technique

AGHAMazing Technique				
Grade 9- Wisdom	N	Pre-Test	Post-test	Difference
	52	46.70	80.50	33.80

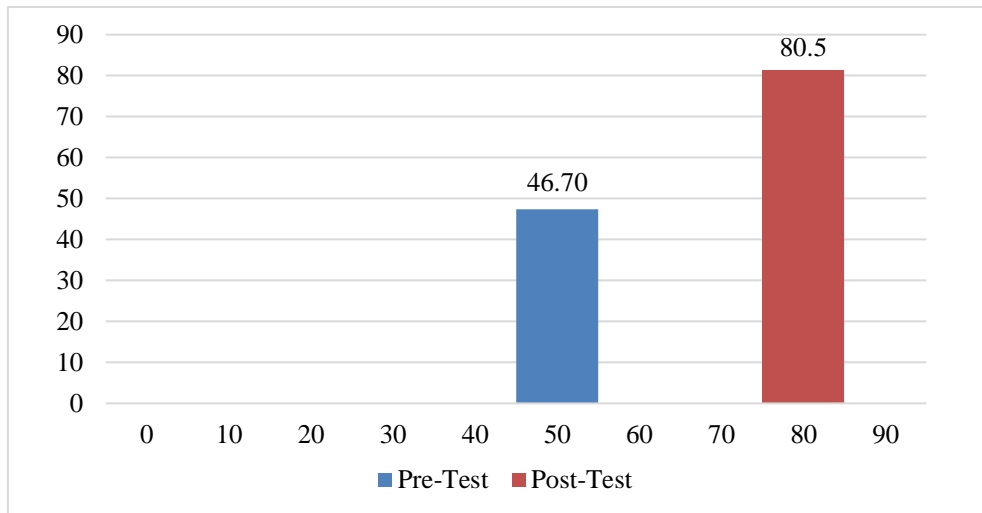


Fig. 2: Results of the Pre-Test and Post-Test Using AGHAMazing Technique

Table 4 displays T-test analysis on significant difference on the pre-test and post-test results between traditional method against AGHAMazing technique.

The table exhibits that the T value is 1.91 and the P value is 0.06 for pre-test result, thus, it implies to accept the null hypothesis and interpreted as not significant.

Meanwhile, the result for post-test is 13.47 for T value and 1.981E-18 for P value, thus, the result reveals to reject the null hypothesis and interpreted as significant.

Table 4: T-Test on the Significant Difference on the Pre-Test and Post-Test Results Between Traditional Method against AGHAMazing Technique

Variable	T Value	P Value	Decision	Interpretation
Pre-test	1.91	0.06	Accept Ho	NS
Post-test	13.47	1.981E-18	Reject Ho	S

0.05 Level of Significance, S= significant, NS= not significant

VI. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This part presents the summary of the major findings, the conclusion arrived at based on the findings and the recommendations given in accordance with the conclusions.

A. Summary

The study determined the effectiveness of using the new proposed teaching technique in teaching science named AGHAMazing technique in improving the academic performance of the Grade 9 students of Salapungan High School, S.Y. 2015-2016.

This composed of the control group and experimental group, the control group used the traditional method of teaching and the experimental group using the AGHAMazing technique.

It utilized the experimental method of research and the t-test analysis to show the comparison between variables.

Results of the pre-test and post-test revealed that AGHAMazing technique is more effective method in improving the academic performance of Grade 9

students in science compared to traditional method.

B. Conclusions

In the light of the findings, the following conclusions were drawn:

- The experimental and control groups performed at the same level before the conduct of the study.
- The experimental group performed better in the posttest than the control group.
- There is a significant difference exists on the pre-test and post-test of Grade 9 students in science before and after the conduct of this study.
- The new proposed teaching technique “AGHAMazing” is an effective method in improving the academic performance of Grade 9 students in science.

C. Recommendations

In the light of the findings and conclusions of the study, the following recommendations were drawn:

- Science teachers can use/ try updated and relevant teaching techniques to uplift the academic performance of the students.
- Science teachers must innovate his art of teaching by providing various activities to enhance, enrich and empower the students to become productive individual.

- Personnel in the Department of Education should initiate programs/ activities, trainings and seminars to equip the teachers with latest trends, issues and concerns to further stimulate their teaching competency especially in the conduct of teaching-learning process.
- A similar study may be conducted by future researchers covering a bigger number of respondents in another venue.

REFERENCES

- [1.] Das, R C.(2004). Science teaching in schools. Sterling Publishers Private Limited
- [2.] Ediger, Marlow.(2005). Teaching science successfully. Discovery Publishing House
Gutierrez, L.M. (2010). School climate: its impact to academic performance of students, (Unpublished Master's Thesis). Bulacan Agricultural State College, San Ildefonso, Bulacan
- [3.] Llewellyn, D. (2005) "Teaching high school science through inquiry: a case study approach" Thousand Oaks, CA: Corwin Press.
- [4.] Manuel, K.M.(2008). Methods of research. Rex Bookstore.