Original Paper

Effectiveness of the Modified "Alpabasa": A Game-Based Program in Teaching Reading among the Grades 3 and 4 Non-Readers

John Kit S. Masigan, PhD[1*]

[1] St. Paul University Philippines, Tuguegarao City, Cagayan, Philippines

[*] John Kit S. Masigan, PhD, t. Paul University Philippines, Tuguegarao City, Cagayan, Philippines

Abstract

The National Association of Educational Progress (NAEP) report shows that 39 percent of fourth graders fall below a basic reading level; by twelfth grade that figure is still 23 percent. Accordingly, early intervention initiatives should impact those figures in the future to eliminate the segment of students who have significant difficulty acquiring basic reading skills, generally estimated at 20 percent. In response, Filipino innovators founded "Alpabasa", a game-based program in teaching reading that aims to effectively teach kinder and elementary school children how to read in 18 days. The study made use of the quasi-experimental method, specifically, the pre-post test design to investigate the effectiveness of the modified "Alpabasa": A game-based program in teaching reading among 60 grade 3 and 4 non-readers of St. Paul University Philippines by incorporating costumes, music, movement, games, theatrical presentations and supplemental activities in learning. Findings show that the exposure of non-readers to the Modified Alpabasa Reading Program resulted in better performance of the students in reading. Through action songs and movement-based activities, pupils are geared to play with language as learning situations are made concrete and realistic; thus, making reading more meaningful, interesting and engaging.

Keywords

Modified Alpabasa, reading program, non-readers, game-based program, quasi-experimental research design

1. Introduction

"The more that you read, the more things you will know. The more that you learn, the more places you'll go." Dr. Seuss, a prominent author, puts it that way. Through ages, the world economy has always considered education as a defining conduit for progress. Across cultures, it has always been a catalyst to propagate and to perpetuate. More than a privilege, it is a need- a need to learn life from the grassroots and a need to survive on the arising complexity.

The primordial intent of such pedagogical concept is to equip a learner with appropriate literacy and skills which are deemed valuable in response to the needs of the changing society. Relatively, literacy is identified as the ability to read and write a simple message in any language or dialect with precise comprehension. Be it known that it is a prerequisite for several means of discourse, learning reading and writing allows people to participate meaningfully in life situations that require a reasonable capacity to communicate in written and oral language.

Be it survival or functional, it is essential reading—practical reading—a kind of reading a person must use in a daily basis to become receptive on information designed to make life's decisions. Its value can be traced from the most practical way of understanding print materials of all sorts, recognizing sign boards and public statements, following instructions and warnings, keeping abreast with current events, and enjoying one's rights and privileges. The simplest, most direct measure of functional literacy then is the ability to recognize, comprehend and utilize written chain of thought for even the most basic tasks.

In an adverse circumstance, Filipino sociolinguists claim that the Philippines is not a nation of readers; it is a nation of storytellers. Their oral culture was passed on by word of mouth, and not through written words. Based on the record of the Functional Literacy, Education and Mass Media Survey (FLEMMS) 2003, Philippines's functional literacy rate was determined to be 84.1 percent of the population aged 10-64 years old.

It was further discussed by Juan Miguel Luz (2007) in his writing "A nation of non-readers", that this relatively lower figure reflects the high dropout rates of children before the start of Grade 4 (or by age 10). Department of Education (DepEd) data show that for every 100 children who enter Grade 1, close to 15 do not make it into Grade 2, and roughly one-quarter (24 percent) have dropped out before Grade 4.

Grade 3 (10 years old) is a critical year in terms of formal schooling. Since preschooling is neither compulsory nor part of the package of free public education guaranteed by the Constitution, Grade 3 marks the third full year of basic education for children who attend public elementary school and the year when the facility to read, write, and do the four operations of arithmetic with competence is expected. (Less than 20 percent of those who go to public elementary school actually attend a full year of preschool education.)

Dropping out before this grade level thus becomes a major contributor to the lack of functional literacy, which in turn has a negative impact on adults and their eventual work productivity. This is assuming, of

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course, that by the end of Grade 3 (or the third year of formal full-time schooling), our children's competence in the three Rs are being honed fully. But as we are seeing, that may not be happening in far too many schools.

The latest National Association of Educational Progress (NAEP) report shows that 39 percent of fourth graders fall below a basic reading level; by twelfth grade that figure is still 23 percent. According to them, early intervention initiatives should impact those figures in the future to eliminate the segment of students who have significant difficulty acquiring basic reading skills, generally estimated at 20 percent.

With low level literacy comes poor reading skill. In elementary schools in the Division of Manila, reading test scores reveal that only one-sixth to one-third of pupils can read independently at the desired grade level. By the end of the elementary cycle (Grade 6), over one-third of elementary graduates were identified as "frustrated" readers; another one-third were "instructional" readers. Both levels are below the desired reading level at the end of the elementary cycle.

With all the aforementioned claims of Luz (2007), it's logically perceived that if Metro Manila achieves low level reading competence, how much more in the other regions with less budget allocations and scarce educational facilities than the National Capital Region? Will poor reading competence result to poor learning? What interventions have schools and agencies done to cater this long overdue plight of Filipino learners?

In fairness to all educational initiatives, reading programs, in fact, have been set up in all school divisions by both public and private groups. The DepEd actually embarked on a program to build reading hubs in each of the 186 school divisions. However, as to the optimum success of this program, it would not only rely on the provision of libraries, but more so to its strategic system of implementation. Thus, there is a high demand for an innovative approach to learning reading so that we can truly achieve high literacy and transform to be a nation of readers.

On July 21, 2015, the Pharmaton Company awarded the winners in the Pharmaton's "Life Changers Challenge: Success in Numbers" competition—an online, video-driven nationwide search for Filipinos who carry life changing ideas that can positively impact the lives of other Filipinos. Among all contenders, the project that clinched the grand prize was the "Alpabasa", a game-based program in teaching reading which consists of series of flash cards of the most common Filipino objects a child would encounter along with the letters of the Filipino alphabet and the common syllables. The instructional materials were created by Learning Lion Publishing House, Inc. through the initiative of the founders, Tisha Gonzales-Cruz, Noelle Pabiton and Sholeh Villoria, who embarked on a life-changing project to effectively teach kinder and elementary school children how to read in 18 days. According to the online news written by Bing Parel (2015), Teacher Tisha started developing reading materials on her own, and pretty soon, she met more and more people who shared the same passion—burden in fact—for teaching Filipino children how to read. As everyone knows, education is the great equalizer but it starts with knowing how to make heads or tails about the letters of the

alphabet, figuring out the relationship between one letter with another for comprehension and understanding to occur. More than the lack of materials in the classroom, or the dearth of effective Filipino reading programs and the poor reading skills among public school students and children in underserved communities, what really resonated was also the need for more systematic teacher training.

Ms. Tisha further asserted, "Many of the students had poor foundations in literacy and numeracy. Watching my students struggle to read, and struggle to learn, led me to realize that the key to solving educational problems is going back to the beginning—preparing the students rather than remediating."

When asked what significant results they have witnessed as a consequence of their reading program, the young educators readily answered: "A teacher who piloted Alpabasa last May shared with us that one of her students (a Grade 1 repeater) is now topping the class, despite underperforming during the summer reading program. Even this student who had a difficult time during the program still ended up performing better than his peers who did not learn through Alpabasa." (Parel, 2015)

The researcher, having attended the Dream Expo of the TOSP 2015 National Week where Ms. Tisha presented the renowned innovative project, was deeply inspired to introduce such reading program in his own locality.
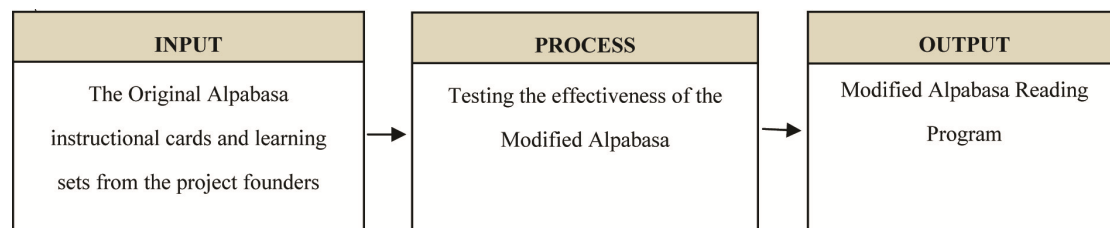
Relatively, The Philippine Accrediting Association of Schools, Colleges and Universities (PAASCU) laid a general recommendation, particularly in the area of instruction, to conduct remedial classes or Learning Assistance Program (LAP) for St. Paul University Philippines—Basic Education Unit, having being granted a Level 3 status.

In timely response to the plight of the increasing number of non-readers in the elementary level of St. Paul University Philippines—Basic Education Unit, particularly grades 1-4, the Alpabasa program is deemed to be modified and tested while integrating creative innovations that would suit the learners needs and contextualize learning situations.

The modifications from the original Alpabasa include wearing of costumes during reading sessions; theatrical presentations as supplement to story books; readers' and chambers' theater as means of story-telling; literary texts taken from literatures of Cagayan Valley; and utilization of the high-technology equipment in the SPUP speech laboratory.

It is with this passionate zeal that the researcher thought of coming up with the study that would investigate the effectiveness of the modified "Alpabasa": A game-based program in teaching reading among grade 3 and 4 non-readers of St. Paul University Philippines by incorporating costumes, music, movement, games, theatrical presentations and supplemental activities in learning, with the goal to make fluent readers out of every Filipino child.

Conceptual Framework

INPUT	PROCESS	OUTPUT
The Original Alpabasa instructional cards and learning sets from the project founders	Testing the effectiveness of the Modified Alpabasa	Modified Alpabasa Reading Program

Figure 1. Paradigm Showing the Relationship Among the Input, Process and Output

Figure 1 shows the interplay of the concepts under study. The input includes the purchased original Alpabasa instructional cards and learning sets from the Learning Lion Publishing Company. These materials were carefully considered as a basis to modify the existing game-based program by integrating more multi-sensory learning approaches in reading. The standard pre-post tests were taken from the learning sets containing the skill-based assessment checklist. In the process of testing the effectiveness of the modified Alpabasa, a pretest was administered to assess the entry level skills of the two groups of subjects. The control group was taught using the lecture-discussion method of teaching while the experimental group was exposed to the modified Alpabasa program. After all sessions have been covered, the post test was administered to both the control and the experimental groups. After which, analysis of the pretest and posttest scores of the two groups was carefully done to ascertain the effectiveness of the modified Alpabasa as a game-based program in teaching reading among grades 3 and 4 non-readers. The output therefore of the study is the modified Alpabasa which integrated the use of costumes by the teacher; theatrical performances as supplement to story books; contextualized literary pieces taken from the literatures of Cagayan; and the use of high-technology equipment in the SPUP speech laboratory.

1.1 Statement of the Problem

This study attempts to investigate the effectiveness of the modified Alpabasa: a game-based program in teaching reading among the grades 3 and 4 non-readers of St. Paul University Philippines.

Specifically, it sought to find answers to the following questions:

1) What are the pre-test and post-test mean scores of the control and the experimental groups in Reading?

2) Is there a significant difference in the pretest mean scores of the control and experimental groups?

3) Is there a significant difference in the posttest mean scores of the control and experimental groups?

4) Is there a significant difference in the pretest and posttest mean scores of the subjects in the experimental groups?

1.2 Hypotheses

Relative to the aforementioned questions, the following null hypotheses will be tested at the 0.01 level of significance:

1) There is no significant difference in the pretest mean scores of the control and the experimental groups.

2) There is no significant difference in the posttest mean scores of the control and experimental groups.

3) There is no significant difference in the pretest and posttest mean scores of the subjects in the experimental group.

2. Method

2.1 Research Design

The study made use of the quasi-experimental method, specifically, the pre-post test design.

The following shows the design of the experiment.

Group	Pretest	Teaching	Method Post Test
C	O_1	X_1	O_2
E	O_3	X_2	O_4

Where:

C = Control Group

E = Experimental Group

O_1 = Pretest Scores of the Control Group

O_2 = Posttest Scores of the Control Group

O_3 = Pretest Scores of the Experimental Group

O_4 = Posttest Scores of the Experimental Group

X_1 = Traditional Method of Teaching

X_2 = Alpabasa Reading Program

The design involved two groups, the control and experimental groups. A pretest was administered to both groups to ensure equality of their entry requirements before the experimental stage. The lecture-discussion method was employed for the control group while the Alpabasa reading program was utilized for the experimental group.

The researcher himself, having undergone the Alpabasa training served as the teacher who facilitated teaching reading for both the control and experimental groups.

2.2 Participants of the Study

The study involved the grades 3 and 4 pupils who *were enrolled in SPUP-BEU*. Using the skill-based assessment checklist provided in the Alpabasa learning package, the researcher, who is at the same time the English subject teacher of grade 4, conducted a diagnostic observation on the recognizable skills displayed by the grade 4 pupils in their English classes. Also, the English subject teacher of grade 3 recommended 50 students who were subjected to pre-assessment by the researcher. 39 out of 50 grade

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3 pupils, and 24 out of 110 grade 4 pupils were identified to be in the "non-reader" level after obtaining a score of 20 and below in the 40-item standard assessment checklist. They were arranged in order from highest to lowest, and the bottom 60 was taken. All odd numbers were taken as one group, and all even numbers as the other group. Hence, 30 students in each class were assigned at the start of the reading session. One class, assigned as the control group was taught using lecture-discussion while the other class, assigned as the experimental group was taught using the modified Alpabasa reading program.

2.3 Research Instruments

Alpabasa Learning Sets. These were purchased from the Learning Lion Publishing House Inc. which was carefully planned and validated by the project founders. There are 8 learning sets (steps 1-8), having specific target skills in each step/stage. These were innovatively modified by the researcher and used with the experimental group. These were presented to the research adviser, Vice-President for Academics and the Principal of the Basic Education Unit for validity.

A standard pre-post test was administered to both control and experimental groups which was taken from the Alpabasa learning package. This skill-based assessment checklist contains 40 essential reading skills which are deemed to be mastered by pupils. These are classified into 10 components, namely, Action, Sound, Action-Sound Correspondence, Print, Action-Print Correspondence, Sound-Print Correspondence, Word Building, Decoding, Listening Comprehension, and Vocabulary.

2.4 Data Gathering Procedure

The researcher employed the following procedures in the conduct of the experiment.

2.4.1 Pre-Treatment Phase

A week after winning in the Pharmaton Life Changers contest, Ms. Tisha, a founder of the Alpabasa project, presented the program in the TOSP 2015 Dream Expo. Then on, the researcher made a constant communication with her in order to introduce Alpabasa in the Cagayan Province. Alongside the purchasing of the learning sets which include the instructional cards, flashcards, charts, and music files, specialized training was also set as part of the whole package.

The researcher added modifications in the originial Alpabasa, which includes the use of costumes by the teacher; theatrical performances as supplement to story books; contextualized literary pieces taken from the literatures of Northern Philippines; and the use of high-technology equipment in the SPUP speech laboratory to strengthen its multi-sensory approach. The literary pieces included in the modification were subjected to content validation by the Language Subject Team Leader of the Basic Education Unit and were presented to the research adviser.

The scores obtained by the 60 respondents in their diagnostic observation were taken as their pre-test scores prior to their exposure to the teaching methods. The results of the pretest were recorded and later compared with the results of the post-test.

2.4.2 Treatment Phase

The researcher sought permission and approval from the Vice President for Academics, and the Principal of the Basic Education Unit. Certain modifications on the program and specifications on the experimental design were also presented to the graduate school office through writing.

The treatment was conducted during the second week of March 2016. The class session for both groups strictly followed 6 Wednesday and Saturday mornings of 3 hours per day and the only difference was the approach employed.

The researcher facilitated the classes with the two groups employing the lecture-discussion method and the modified Alpabasa program for the control group and the experimental group respectively. Both classes were conducted at the same time schedule (9:00-12:00) under the same learning environment. The schedule was followed as shown on the table below.

1st week	Wednesday (9:00-12:00)	Control Group
	Saturday (9:00-12:00)	Experimental Group
2nd week	Wednesday (9:00-12:00)	Experimental Group
	Saturday (9:00-12:00)	Control Group
3rd week	Wednesday (9:00-12:00)	Control Group
	Saturday (9:00-12:00)	Experimental Group
4th week	Wednesday (9:00-12:00)	Experimental Group
	Saturday (9:00-12:00)	Control Group
5th week	Wednesday (9:00-12:00)	Control Group
	Saturday (9:00-12:00)	Experimental Group
6th week	Wednesday (9:00-12:00)	Experimental Group
	Saturday (9:00-12:00)	Control Group

2.4.3 Post-Treatment Phase

After exposure to the reading method, the researcher administered the posttest to both the control and the experimental groups, still using the skill-based assessment checklist.

The results of the post-test were recorded and were compared with the results of the pre-test scores in order to determine whether a significant difference exists in the performance of the two groups, and to ascertain which method of teaching is effective.

2.5 Data Analysis

The data obtained were classified, analyzed and interpreted making use of the following statistical tools such as frequency count, mean, percentages, and t-test for independent means and paired samples.

Frequency count, mean, and percentages were used to interpret the pre-post test performance scores of the two groups.

To interpret further the raw scores of both groups in the pre/post test, the following arbitrary scale was used:

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SCORE	DESCRIPTIVE INTERPRETATION
31-40	Independent Reader (IR)
21-30	Beginning Reader (BR)
20-0	Non-Reader (NR)

The t-test for independent means and paired samples was used to determine the significant difference in the following:

•Pretest mean performance scores of the control and experimental groups.

•Pretest and posttest mean performance scores of the subjects in the experimental groups.

•Posttest mean performance scores of the control and experimental groups.

3. Result

Table 1. Frequency and Percentage Distribution of the Pre and Post Test Scores for both the Control and Experimental Groups based on the Alpabasa Skill-based Checklist Assessment

	Control Group (n=30)				Experimental Group (n=30)				Descriptive Interpretation (D.I.)
	Pretest		**Posttest**		**Pretest**		**Posttest**		
Scores	F	%	F	%	F	%	F	%	
31-40			13	43.33			23	76.67	Independent Reader (IR)
21-30			17	56.67			7	23.33	Beginning Reader (BR)
0-20	30	100			30	100			Non-Reader (NR)
Mean	**16.67**		**28.63**		**16.77**		**34.87**		
D.I.	**Non-Reader**		**Beginning Reader**		**Non-Reader**		**Independent Reader**		

Table 1 shows that with respect to the pretest scores, both control and experimental groups have the same pre-test performances which are qualified under "non-reader" level, as shown by the frequencies in the interval 0-20, and the mean scores which vary only by 0.10. The means indicate that both groups are identified as non-readers before exposure to the treatment. This further implies that the two groups are comparable with respect to their baseline levels in the skills targeted by the Alpabasa reading program.

Considering the post-test scores, majority or 56.67% of the pupils in the control group scored within the range 21-30, while majority or 76.67% of the students in the experimental group scored within the range of 31-40. Only seven (7) or 23.33% of the pupils in the experimental group got scores within the

range 21-30 while thirteen among the pupils in the control group scored 31-40. This means that the students in both groups had improved performance after the conduct of the intervention. The mean score of 28.63 of the control group indicates a "beginning reader" level, while the mean score of 34.87 of the experimental group indicates an "independent reader" level. The difference in the post test mean scores implies that the experimental group performed better than the control group.

Table 2. T-test for Significant Difference in the Pretest Mean Scores of the Control and Experimental Groups in Reading

TEST	GROUP	MEAN	SD	DF	t-VALUE	P-VALUE	REMARKS
Pre-test	Control (n=30)	16.67	2.617	58	0.149	.882	Not Significant
	Experimental (n=30)	16.77	2.596				

As shown in Table 2, the mean pretest scores of the control and experimental groups are 16.67 and 16.77 respectively. The computed t-value of 0.149 and the probability value of 0.882, indicate that the difference between the means of the two groups is not significant at 0.01 level. This implies that the two groups are comparable with respect to their baseline level on the skills targeted by Alpabasa before they were exposed to the treatments.

Table 3. T-test for Significant Difference in the Posttest Mean Scores of the Control and Experimental Groups in Reading

TEST	GROUP	MEAN	SD	DF	t-VALUE	P-VALUE	REMARKS
Post-test	Control (n=30)	28.63	4.156	58	5.641	0.00	Significant
	Experimental (n=30)	34.87	4.400				

As reflected in Table 3, the posttest mean scores of the control and experimental groups are 28.63 and 34.87 respectively. The mean performance score of the experimental group is higher as compared to the control group which means that the experimental grouped performed better in the posttest.

The computed t-value of 5.641 and the probability value of 0.00 with 58 degrees of freedom, indicate that the difference between the means of the two groups is significant at 0.01 level. This implies that the performance of the students who were exposed to the Modified Alpabasa Reading Program was

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significantly better than the performance of those who were exposed to the lecture-discussion method. Hence, the use of the Modified Alpabasa is effective in enhancing mastery of reading skills.

This result is consistent with Abeberese, Kumler (2009) who pointed out in their study, "Enabling Young Readers: A Primary School Reading Program in the Philippines" that implementing short-term programs which promote reading- such as storytelling sessions and reading games- can be an effective way to cultivate good habits in children and improve their reading ability.

However, the Modified Alpabasa contradicts the findings of Shippen, Houchins et al. (2004) which confirmed the effectiveness of teacher-directed instruction for struggling readers in attaining word reading efficiency, reading rate, reading accuracy, and reading fluency.

Table 4. T-test for Significant Difference between Pre-test and Post-test Mean Scores of the Experimental Group in Reading

VARIABLES	MEAN	MEAN DIFFERENCE	DF	t-VALUE	P-VALUE	REMARKS
Pre-test	16.67	-18.100	29	-34.129	0.00	Significant
Post-test	34.87					

Table 4 shows that the pretest mean score of the subjects in the experimental group is 16.67, while their post-test mean score is 34.87. The computed t-value of -34.129 and the probability value of 0.00 which is less than the 0.01 level of significance indicate that the mean difference is statistically significant. This means that the post-test mean score of the experimental group is significantly higher than that of the pre-test mean score. This implies further that the use of the Modified Alpabasa as a game-based reading program is effective in enhancing mastery of reading skills essential to becoming an independent reader.

This finding supports the claim of Majeda Al Sayyed Obaid, Ph.D. (2013) who found out that elementary school children learn best in a tactile/kinesthetic style. When students can manipulate and experience conceptual information through activities, only then, will they learn and retain information more readily. Also, Dima Hijazi and Amal Al-natourr (2012) stressed that music can actively process new stimuli and infer the rules of language. It may code words with heavy emotional and contextual flags, evoke a realistic and cogent environment, and enable students to have positive attitudes, self-perceptions, and cultural appreciation. Likewise, Hubbal, Lambert et al. (2007) on their study, claimed that game-based approaches have made significant contributions to developing students as stakeholders in the learning process; and enhances the development of positive learning outcomes.

Moreover, The results affirms Stager (2010) who asserted that his current study has demonstrated support for the establishment of automaticity via flashcards as an effective instructional approach for increasing reading fluency and comprehension skills in Spanish. Yasin Aslan (2011) further emphasized

that with an appropriate English course, they are extremely good at helping students build a large vocabulary. Children generally find it easier to associate images with words and this is why many of the flashcards feature word related pictures.

4. Discussion

4.1 Conclusion

The exposure of non-readers to the Modified Alpabasa Reading Program resulted in better performance of the students in Reading. This then implies that through the Modified Alpabasa, learning is facilitated as the students break down reading into games, songs, sounds, actions, and visual integrations. Through action songs and movement-based activities, pupils are geared to play with language as learning situations are made concrete and realistic, thus making reading more meaningful, interesting and engaging.

A skill-based assessment for reading also facilitates pupils to unlearn previous inaccurate reading processes; and build new schema which ensures mastery of essential competencies through fluency-based exercises. Effective reading development takes place when there is a good blend of games, costumes, theatrical presentations, contextualized reading texts, musical-kinesthetic activities, and advanced technology speech equipment, all integrated to real life situations as these develop meaningful understanding of reading concepts and processes.

The Modified Alpabasa therefore enhances children's motivation and skills in reading. It encourages pupils to actively engage themselves in interactive discussions, manifest enthusiasm, learn from each other and make connections.

4.2 Recommendations

On the basis of the findings and conclusions derived from the study, the following recommendations were made:

1) Teachers are encouraged to employ the Alpabasa Reading Program and other innovative teaching-learning approaches in order to enhance students' reading skills and facilitate conceptual understanding of reading concepts and processes. This can be done through the conduct of more meaningful and engaging activities in the classroom, thereby improving their reading performance or achievement.

2) Language teachers are encouraged to prepare/develop personalized visual materials, songs and games for their reading classes as these will facilitate the teaching and learning of reading.

3) The administration may continuously support the use of Alpabasa learning sets and other innovative teaching-learning models/approaches/strategies in the teaching-learning of reading in order to achieve the goals of the K-12 performance-based learning.

4) Future researchers may conduct parallel studies to verify the results of this investigation not only in the field of reading but also among other macro-skills.

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