

“ADAL KO, IBURAY KO: AKEM KO TI MANGISURO” NUMERACY & LITERACY PROGRAM OF CTE-UNP: AN EXTENSION VENTURE

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ABSTRACT

This study aimed improve the ability of the Grade I pupils of Lussoc Community School in numeracy and reading literacy before, during and after the implementation of the " **Adal ko, Iburay ko: Akem ko ti Mangisuro (My Learning, Be Shared: My Role is to Teach): Numeracy & Literacy Program** ".

The descriptive-assessment research design was employed in the study. Frequency, Mean, Gain Ratio and t-test were used as statistical treatment of the data gathered in this study. The level of performance in numeracy and reading literacy before and after their exposure to the program has been improved from “Needs Improvement” to “Outstanding.” The level of performance of the respondents during the conduct of the program “Excellent.” There is a significant difference in the level of performance in numeracy and reading literacy before and after their exposure to the program.

The findings show that the literacy program enhanced the pupils' reading performance. The school heads, teachers and parents of adopted schools found the program effective. The LGU Officials instituted measures by drafting ordinance to address the issue on problem on difficulty of reading among public school pupils.

The program is highly commendable. It should be continued. Close and continuous monitoring and evaluation should be done by the Extension Services Office and the program implementers Comprehensive research which includes parents and teachers as respondents should also be conducted to improve the program.

Introduction

In relation to the problem on difficulty in reading and in dealing with numbers among pupils and students in public schools, the College of Teacher Education (CTE), University of Northern Philippines (UNP) felt the need to extend services to pupils with these difficulties. Thus the “**Adal ko, Iburay ko: Akem ko ti Mangisuro**” **Numeracy & Literacy Program** has been established. The program tutors pupils and students who are non-readers and slow readers (for elementary), low in comprehension (high school) and those who are low performing pupils and students in Mathematics.

The above-mentioned schools were identified by the Division of Ilocos Sur Assistant Superintendent, to have a low performance both in English and Mathematics in the first district of Ilocos Sur. Their bases were the scores in the National Achievement Test (NAT) and National Achievement Career Examination (NCAE) for the School Year 2011 – 2012.

Reading is not an inborn work like walking or talking, though. English and Mathematics subjects are regarded as the most difficult subject among all the subjects being learned in school. It cracks our head when dealing with difficult words and numbers especially in solving complicated problems.

Mastering these subjects is not a natural process, like the development of speech, and therefore typically—although not always - requires instruction

The ability to read and compute/solve is unquestionably a most basic skill for academic learning, yet there continues to be much disagreement among educators on how to teach best this critical tool. At the present time, it is clear that because of the enormous diversity of students' backgrounds and abilities, there are many who still find reading and computing a challenge beyond that level.

The objectives of the program are 1)To raise the level of functional reading literacy of the pupils and students in the Selected public elementary and secondary schools; 2)To improve the reading and mathematical skills of clients; 3)To develop among the learners the proper values, attitudes and knowledge to enable them to think critically; and 4)To provide learning experiences that increase the child's awareness of the responsiveness to the just demands of society.

The activities done are based from the Operational Plan on Reading Literacy and Numeracy Program, an Extension Project of the College of Teacher Education which is based under the “Adopt a School and Community Extension Program” of the University.

Statement of the Problem

The study mainly aimed to improve the ability of the Grade I pupils of Lussoc Elementary High School in numeracy and reading literacy, School Year 2013 - 2014.

Specifically, it attempted to answer the following questions:

1. What is the level of performance of the clients in numeracy and reading literacy before and after the conduct of the program?
2. What is the level of performance of the clients during the conduct of the program?
3. Is there a significant difference in the level of performance of the clients in numeracy and reading literacy before and after the conduct of the program?

(Independent Variable)

“Adal ko, Iburay ko: Akem ko ti Mangisuro” Numeracy & Literacy Program of CTE-UNP: An Extension Venture



Theoretical Framework

Studies related to the research work were the researchers’ guideposts in undertaking this investigation.

Figuerres (2010) found out that the Literacy and Numeracy Service Program, School Year 2004-2005 has improved remarkably the reading and mathematics competencies of the Grades I, II, and III pupil- clients in the two adopted schools of the Vigan City Division, Department of Education.

Conceptual Paradigm

Base on the literature reviewed and cited earlier, the researchers conceptualized the study as shown in the figure below.

(Dependent Variable)

Improved Pupils’ Ability in Numeracy and Reading Literacy

Figure 1. The Conceptual Paradigm

Figure 1 shows that through the **“Adal ko, Iburay ko: Akem ko ti Mangisuro” Numeracy & Literacy Program of CTE-UNP: An Extension Venture**, the pupils improved their ability in numeracy and reading literacy.

METHODOLOGY

Research Design The descriptive-assessment research design was employed in the study. Assessment includes the

determination of competence, strengths and weaknesses of the pupil - clients along English reading and mathematics.

Subjects of the Study. The subjects of this study were the 60 Grade I non-

readers and slow readers and those who are low performing pupils in Mathematics. These clients were identified by the Division of Ilocos Sur Assistant Superintendent, to have a low performance both in English and Mathematics in the first district of Ilocos Sur. Their bases were the scores in the National Achievement Test (NAT) and National Achievement Career Examination (NCAE) for the School Year 2011 – 2012.

Research Instrument. The instrument used in this study were the 50-item (pretest and posttest) and 20-item (exercises for every session) teacher-made test to determine the ability of the pupils in numeracy and reading literacy before and after the conduct of the extension venture.

The following scale was used by the researchers to describe the pupils’ ability in numeracy and reading literacy.

Range of Scores				Descriptive Rating
40-50	17-20	13-15	9-10	Outstanding
30-39	13-16	10-12	7-8	Very Good
20-29	9-12	7-9	5-6	Good
10-19	5-8	4-6	3-4	Poor
0-9	0-4	0-3	0-2	Needs Improvement

Data Gathering Procedure. Memorandum of Agreement (MOA) was forged between DepEd and UNP with participation of the LGU concerned relevant to implementation of the “**Adal ko, Iburay ko: Akem ko ti Mangisuro**” **Numeracy & Literacy Program of CTE-UNP: An Extension Venture.** The Program usually started on the month of September after which the schools that adoption would report to UNP gave the list of prospective pupil clients which were based on the Results of the DepEd Eight Week Reading Program. Remedial instruction through group or individualized tutoring was employed during the implementation. The student teachers, supervising instructors and other faculty extensionists met every Wednesday or Thursday to prepare the lessons, instructional materials and other activities for the weekly (Friday) tutorial session of the clients at least two hours for English and another two hours for mathematics. The student teachers were trained to do individual and group tutoring

to pupil-clients. Meetings with heads of the adopted schools and LGU officials were conducted to report the results of the study and implementation of the program. Heads and concerned teachers were asked/interviewed about the impact of the literacy program on their pupils. This formed part of the assessment process of the Literacy Program

Statistical Treatment of Data

The data gathered are described and analyzed using the following statistical tools.

Frequency. This was used to determine the number of pupils’ scores in the pretest and posttest.

Mean. This was used to determine the pupils’ performance in numeracy and reading literacy before and after the extension venture.

Gain Ratio. This was used to determine the percentage of effort exerted by the pupils to improve their pretest scores to perfect scores in posttest.

t-test. This was used to determine whether there is a significant difference between the pupils' performance in in

numeracy and reading literacy before and after the extension venture.

RESULTS AND DISCUSSIONS

a. Level of Performance of the Client-Respondents

Table 1
Distribution of Client-Respondents' Performance in Numeracy and Reading Literacy

Performance Level	Pretest		Posttest	
	f	%	f	%
Outstanding	-	-	52	87
Very Good	-	-	8	13
Poor	16	27	-	-
Needs Improvement	44	73	-	-
Total	60	100	60	100

Table 2 presents the summary of data on the performance of the Grade I pupils in numeracy and reading literacy.

Table 2
Summary of Data on the Performance Level of the Grade I Pupils in Numeracy and Reading Literacy

Statistics	Pretest	Posttest
No. of Students	60	60
Lowest Score	2	38
Highest Score	15	50
Mean (DR)	7.62 (NI)	43.45(O)
Gain Ratio		

The table shows the summary of the gathered and computed data during the pretest and posttest. There are 22 pupils who took up the Pretest and Posttest. The lowest score in the Pretest is 2 while the lowest

score in the Posttest is 38 with a 36 points difference. The highest score in the Pretest is 15 while in the Posttest, the highest is 50. The highest score in the Pretest was remarkably increased in the Posttest. After

their exposure to the “**Adal ko, Iburay ko: Akem ko ti Mangisuro**” **Numeracy &**

Literacy Program the performance level of the students has been upgraded.

Table 3

Level of Performance of Client-Respondents in English for the Reading Literacy

Topics (ENGLISH)	Number of Items	Mean	Descriptive Rating
Vowel Sounds	20	15.00	Very Good
Consonant Sounds	20	17.43	Very Good
Vowel Sounds	20	20.00	Excellent
Words With Short E Sounds	15	13.67	Excellent
Words With Short I Sounds	15	14.00	Very Good
Words With Short O Sounds	15	15.00	Excellent
Words With Long O Sounds	15	13.56	Excellent
Words With Short u Sounds	15	14.00	Excellent
Words With Long A Sounds	15	13.54	Excellent
Words with Long I Sounds	15	14.00	Excellent

As shown in the table, the overall mean rating of the clients of Lussoc Community School in their Pretest is 17.11 out of the 30 item test in English and tend to be “Good.” This means that the clients still need to be enhanced in English.

It is note taking that there is an improvement of the English literacy form the clients is observed. The result of the exercises shows that the clients have gained

knowledge from the tutors. The “Excellent” ratings of the clients’ scores in English depict that their performance have improved. Only few of the lessons tend to be “Very Good.”

Table 3 presents the accomplished tasks in Mathematics for the Literacy and Numeracy Program at Lussoc Community School.

Table 4

Level of Performance of Client-Respondents in English for Numeracy

Topics (Mathematics)	Number of Items	Mean	Descriptive Rating
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Shapes, Colors and Number 1-10	10	7.89	Very Good
Odd and Even Numbers/Skip Counting by 2's, 5's, and 10's	20	17.73	Excellent
Roman Numerals 1-50	10	9.00	Excellent
Roman Numerals 51-100	20	19.67	Excellent
Place Value (ones to tens)	10	9.67	Excellent
Place Value (hundreds)	10	8.73	Very Good
Addition Facts	10	7.83	Very Good
Addition of Whole Number	10	7.20	Very Good
Addition of two digit numbers (without regrouping)	10	8.63	Very Good
Addition of Three Digit Number by One-Digit (Without Regrouping)	10	9.03	Excellent

It can be noticed in the table that the overall mean rating of the clients in their Pretest 15.16 out of the 50 item test in Mathematics and tend to be “Good.” This means that the clients still need to enhance their mathematics ability.

Significant improvement of the English literacy is observed. The result of the exercises shows that the clients have gained knowledge from the tutors. The “Very Good and Excellent” ratings of the

clients’ scores in English depict that their performance have improved.

It is note taking that there is an improvement of the Mathematics literacy form the clients is observed. The result of the exercises shows that the clients have gained knowledge from the tutors. The “Excellent” ratings of the clients’ scores in Mathematics depict that their performance have improved. Only few of the lessons tend to be “Very Good.”

Table 5
The t-test of the Significant Difference in the Level of Performance in Numeracy and Reading Literacy

	Pretest	Posttest
Mean	7.62 (NI)	43.45(O)
Mean difference	35.83	
Degree of Freedom	59	
Computed t-value		
Critical t-value		
Decision		

The overall computed t-value of 10.34 exceeded the critical t-value of 2.08. Since the computed t-value exceeded the critical t-value, the researchers rejected the null hypothesis stating that there is no significant difference in the level of performance in naming the Windows Movie Maker Environment. This means that there is a significant difference at 0.05 level of significance in the level of performance in naming the Windows Movie Maker Environment before and after the pupils' exposure to PowerPoint Presentation. Therefore, the treatment used in this study was effective in teaching Windows Movie Maker Environment. This finding manifests that the pupils' performance in the posttest was significantly higher than their performance in the pretest.

The study of Sugahara et. al. (2006) is quite the same with the present study wherein the results of their study showed a significant relationship between students' preferences regarding PowerPoint media and their academic performance as shown in their examination scores.

Conclusions

Based on findings of the study, the researchers arrived at the following conclusions that:

1. The level of performance in numeracy and reading literacy before and after their exposure to the program has been improved from "Needs Improvement" to "Outstanding."
2. The level of performance of the respondents during the conduct of the program "Excellent."
3. There is a significant difference in the level of performance in

numeracy and reading literacy before and after their exposure to the program.

Recommendations

1. The project is highly commendable. It should be continued.
2. The project should be served to non-readers of Grade I and low performing students of English and Mathematics in Grade 7 for financial viability.
3. Continuous monitoring and evaluation should be done by the Extension office and the project implementers.
4. Full blown research should be conducted to determine the improvement of literacy and numeracy of the clients.
5. Extension workers, and faculty assigned in this program should be more committed to work for the service program.

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