



De La Salle University – Dasmariñas

GRADUATE PROGRAM

**A COMPARATIVE ANALYSIS OF THE MATHEMATICAL LITERACY
LEVEL IN THE DIFFERENT COMPETENCY AREAS OF PRIMARY
PUPILS IN ELIZABETH SETON SCHOOL – SOUTH BASED ON
THE EXISTING CURRICULUM AND BEC REQUIREMENTS**

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ABSTRACT

Name of Institution: De La Salle University-Dasmariñas
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Title: **A Comparative Analysis of the
Mathematical Literacy Level in the Different
Competency Areas of Primary Pupils in
Elizabeth Seton School-South Based on the
Existing Curriculum and BEC Requirements**
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STATEMENT OF THE PROBLEM:

The main thrust of the study was to compare the mathematical literacy level in the different competency areas in the different grade levels of primary pupils based on Elizabeth Seton School-South curriculum and BEC requirements in elementary mathematics.

The following questions were answered in the study:

1. What is the mathematical literacy level in the different competency areas in the different grade levels of primary pupils based on the ESS-South curriculum?



2. What is the mathematical literacy level in the different competency areas in the different grade levels of primary pupils based on the BEC requirements?
3. Is there a significant difference in the mathematical literacy level in the different competency areas in the different grade levels of primary pupils based on ESS-South curriculum and BEC requirements?
4. Based on the findings of the study, what suggestive measures on teacher training, instructional materials development, strategies in teaching and in instructional supervision maybe proposed?

SCOPE AND COVERAGE:

The study focused on the comparison of the mathematical literacy level in the different competency areas in the different grade levels of primary pupils based on Elizabeth Seton School-South curriculum and BEC requirements.

The study was done at Elizabeth Seton School-South, Anabu II-D, Imus, Cavite during the schoolyear 2002-2003.

METHODOLOGY:

The descriptive method was used. To compare the mathematical literacy level in the different competency areas in the different grade levels of primary pupil, two sets of achievement tests were used. The first set of



achievement tests was based on the existing curriculum of ESS-South in elementary mathematics. The second set of achievement tests was based on the Basic Education Curriculum in elementary mathematics.

The statistical tools used in the study were percentage, mean, standard deviation and t-test for correlated means.

FINDINGS:

Problem 1. Level of Mathematical Literacy in the Different Competency Areas in the Different Grade Levels of Primary Pupils Based on ESS-South Curriculum

Level of Mathematical Literacy of Grade I Pupils. Results showed that level of mathematical literacy in comprehension of whole numbers of Grade I pupils with a mean percentage of 81.5 was moderately satisfactory; moderately satisfactory with a mean percentage of 80.1 in operations on whole numbers; fair with a mean percentage of 75.8 in rational numbers; moderately satisfactory with a mean percentage of 80.9 in geometry and fair with a mean percentage of 75.6 in measurement. The findings revealed that Grade I pupils performed highest in comprehension of whole numbers. Low performance was shown in measurement.

Level of Mathematical Literacy of Grade II Pupils. Results showed that level of mathematical literacy in comprehension of whole numbers of Grade II pupils with a mean percentage of 82.6 was moderately satisfactory; fair with a mean percentage of 75.2 in operations on whole



numbers; fair with a mean percentage of 76.8 in rational numbers; moderately satisfactory with a mean percentage of 80.72 in geometry and fair with a mean percentage of 75.2 in measurement. The findings revealed that Grade II pupils performed highest in comprehension of whole numbers. Low performance was shown in operations on whole numbers and measurement.

Level of Mathematical Literacy of Grade III Pupils. Results showed that level of mathematical literacy in comprehension of whole numbers of Grade III pupils with a mean percentage of 82.4 was moderately satisfactory; fair with a mean percentage of 76.86 in operations on whole numbers; fair with a mean percentage of 77.8 in rational numbers; fair with a mean percentage of 75.38 in geometry and fair with a mean percentage of 75.45 in measurement. The findings revealed that Grade III pupils performed highest in comprehension of whole numbers. Low performance was shown in geometry.

Level of Mathematical Literacy of Grade IV Pupils. Results showed that level of mathematical literacy in comprehension of whole numbers of Grade IV pupils with a mean percentage of 86.8 was satisfactory; moderately satisfactory with a mean percentage of 83.3 in operations on whole numbers; fair with a mean percentage of 76.4 in rational numbers; moderately satisfactory with a mean percentage of 80.0 in geometry and fair with a mean percentage of 76.64 in measurement. The findings



revealed that Grade IV pupils performed highest in comprehension of whole numbers. Low performance was shown in rational numbers.

Problem 2. Level of Mathematical Literacy in the Different Competency Areas in the Different Grade Levels of Primary Pupils Based on BEC Requirements

Level of Mathematical Literacy of Grade I Pupils. Results showed that level of mathematical literacy in comprehension of whole numbers of Grade I pupils with a mean percentage of 81.64 was moderately satisfactory; moderately satisfactory with a mean percentage of 81 in operations on whole numbers; fair with a mean percentage of 77.19 in rational numbers; moderately satisfactory with a mean percentage of 81.50 in geometry and fair with a mean percentage of 77.4 in measurement. The findings revealed that Grade I pupils performed highest in comprehension of whole numbers. Low performance was shown in rational numbers.

Level of Mathematical Literacy of Grade II Pupils. Results showed that level of mathematical literacy in comprehension of whole numbers of Grade II pupils with a mean percentage of 88.78 was satisfactory; fair with a mean percentage of 78.5 in operations on whole numbers; fair with a mean percentage of 78.7 in rational numbers; moderately satisfactory with a mean percentage of 82.11 in geometry and moderately satisfactory with a mean percentage of 81.5 in measurement. The findings revealed that



Grade II pupils performed highest in comprehension of whole numbers. Low performance was shown in operations on whole numbers.

Level of Mathematical Literacy of Grade III Pupils. Results showed that level of mathematical literacy in comprehension of whole numbers of Grade III pupils with a mean percentage of 84.6 was moderately satisfactory; moderately satisfactory with a mean percentage of 84.23 in operations on whole numbers; moderately satisfactory with a mean percentage of 81.3 in rational numbers; moderately satisfactory with a mean percentage of 80.0 in geometry and fair with a mean percentage of 79.1 in measurement. The findings revealed that Grade III pupils performed highest in comprehension of whole numbers. Low performance was shown in measurement.

Level of Mathematical Literacy of Grade IV Pupils. Results showed that level of mathematical literacy in comprehension of whole numbers of Grade IV pupils with a mean percentage of 90.6 was very satisfactory; satisfactory with a mean percentage of 85.45 in operations on whole numbers; satisfactory with a mean percentage of 86.27 in rational numbers; moderately satisfactory with a mean percentage of 82.2 in geometry and fair with a mean percentage of 82.1 in measurement. The findings revealed that Grade IV pupils performed highest in comprehension of whole numbers. Low performance was shown in measurement.



Problem 3. There was a significant difference in the mathematical literacy level in the different competency areas in the different grade levels of primary pupils based on ESS-South curriculum and on BEC requirements since the obtained ratios exceeded the critical values at the region of acceptance.

CONCLUSIONS:

Based on the results of the study, the following conclusions were drawn:

- 1. The ESS-South curriculum met the BEC requirements in the primary level as proven by the better performance in the tests given by DepEd Region IV than in the tests given based on ESS-South curriculum.**
- 2. Primary pupils performed highest in comprehension of whole numbers. Low performance was shown along areas of rational numbers and measurement followed by operations on whole numbers and geometry.**
- 3. There is a need to strengthen the curriculum, upgrade teachers' competency, improve teaching strategies and provide more instructional materials along areas where performances of the primary pupils were low such as operations on whole numbers, geometry, rational numbers and measurement.**



RECOMMENDATIONS:

In view of the results of the study, the following recommendations are offered:

1. Provision of more in-service training programs especially seminar-workshops for mathematics teachers should be given a thrust to further strengthen their teaching competency;
2. Varied interactive activities and effective instructional materials along areas like operations on whole numbers, rational numbers, geometry and measurement should be planned, prepared and utilized;
3. Continuing monitoring and evaluation of pupils' achievement along areas of operations on whole numbers, rational numbers, geometry and measurement should be done;
4. Systematic supervision of mathematics classes should be conducted;
5. Continuous review and revision of the curriculum should be made integral to the planning of school's educational program.



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FIGURE

FIGURE

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Paradigm of the Study

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