Mother Tongue-Based Mathematics

Iloko Language Competence of Grade I Learners in Bauang District, Division of La Union

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• The 21st century has been swamped with changes and challenges brought about by modern science and technology.

• To be abreast with these changes and to be one with the modern world requires quality education which has become the modern man’s primordial concern.
• The K-12 Mathematics Curriculum has crafted to provide the necessary solid foundation in Mathematics.

• DepEd Order No. 31, s. 2009 mandates the use of the Mother Tongue as a medium of instruction from Kindergarten to Grade III and is also taught as a subject.

• This DepEd Order is the Mother Tongue-Based Multilingual Education (MTBMLE) Program.
This program has been anchored from researches worldwide, which found out that top performing countries those that allow their students to use their home language.
With the adoption of the MTBMLE Program in the Philippine Educational System, everyone hopes for the improvement in the quality of teaching and learning.
But then, due to the novelty of the program and the alacrity of its implementation, the dearth of instructional resources, references, books and materials for the use of teachers as well as learners especially in Mother Tongue Based Mathematics is a real problem.
Considering the low performance in Mathematics and the shortage of references, learners’ material and supplementary materials for Grade I pupils, the researcher crafted a skillbook which can serve as a ready reference for the Grade I teacher and as an authentic workbook for the learner.
Abstract

The study aimed to determine the Mother Tongue-Based Mathematics Competence of Grade I pupils of Bauang District, Division of La Union, which serves as basis in developing a Mother Tongue-Based Mathematics Skillbook for Grade I.
• It identified the profile of the respondents along Socio-Economic Status, Ethnic Background, and Dominant Language Used as well as the level of competence in Mother Tongue-Based Mathematics of the Grade I pupils along Conceptual Skills, Analytical Skills, Computational Skills and Problem Solving Skills.
It also determined the significant relationship between the respondents’ profile variables and their Mother Tongue-Based Mathematics Competence as well as the strengths and weaknesses in Mother Tongue-Based Mathematics.
Method of Research

- The descriptive method of research was used in this study and documentary analysis was also utilized in gathering the needed data for the profile of the respondents.

- Further, the study also tried to determine the level of competence of the respondents with a validated and reliable competence test which was constructed by the researcher.

- The results of the competence test were used as basis in the development of a Mother Tongue-Based Mathematics Skillbook.
Statement of the Problem

Specifically it sought to answer the following questions:

1. What is the profile of the respondents along:
   a. Socio-economic status;
   b. Ethnic background; and
   c. Dominant Language used?
Statement of the Problem

2. What is the level of competence in Mother Tongue-Based Mathematics of the Grade II pupils along:
   a. Conceptual Skills;
   b. Analytical Skills;
   c. Computational Skills;
   d. Problem Solving Skills?

3. Is there a significant relationship between the Respondents’ Profile Variables and their Mother Tongue-Based Mathematics Competence?
Statement of the Problem

4. What are the strengths and weaknesses in Mother Tongue-Based Mathematics of the Grade II pupils in Bauang North District and Bauang South Districts, Division of La Union?

5. What validated Skillbook in Mother Tongue-Based Mathematics can be proposed to enhance the Mathematics competence of the Grade I Pupils?
Results and Discussions

- Based on the data gathered, the following were the salient findings of the study.

- A great majority of the respondents were Ilokano people who are of low socio-economic status.

- The pupils have High Competence in Conceptual and Analytical Skills and Moderate Competence in Computational and Problem Solving Skills
3. There existed a significant relationship between the respondents’ ethnic background and their level of competence, as well as dominant language and their level of competence but there is no significant relationship between the respondents’ socio-economic status and their level of competence in Mother Tongue-Based Mathematics.
4. Conceptual Skills and Analytical Skills were discovered as the respondents’ strengths while Computational skills and Problem Solving skills were discovered as their weaknesses.

5. A validated skillbook was developed to address the identified weaknesses of the respondents.
Conclusion

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

1. The Grade I pupils are Ilokanos who come from below average class of families.

2. The pupils are good in Mathematics.

3. The pupils’ ethnic background and dominant language influence their Mathematics skills.
Conclusion

4. The pupils’ skills in Computation and Problem Solving need enhancement.

5. The validated Skillbook is an instructional material that can be used as reference of teachers, or as a workbook for the learners to improve their competence in Mother Tongue-Based Mathematics.
Recommendations

To address the perceived needs/ constraints, the following recommendations are forwarded.

First, Teachers and Grade I pupils should adopt the Skillbook to improve the mathematical competence of the pupils and to equip them with the needed skills especially in problem solving and higher-order thinking.

Second, a regular assessment of the competence level of the pupils in Mother Tongue-Based Mathematics should be conducted.
Recommendations

- Third, a parallel study should be undertaken in all the other subject areas to find out the difficulties from the implementation of the MTB-MLE program in order that these could be addressed the soonest.

- Fourth, parallel studies should be undertaken in order to encourage teachers to design and craft relevant and authentic instructional materials.

- Finally, continuous seminars, trainings and workshops in the utilization and pedagogy using the Mother Tongue should be undertaken to enhance the linguistic and pedagogical skills of Basic Education Teachers.
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