
Is Mother Tongue Based Worth Continuing? A Policy Brief

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INTRODUCTION

One of the curricular changes in Basic Education is the teaching of Mother Tongue-Based Multilingual Education (MTB-MLE). MTB-MLE is one of the major thrusts of the K to 12 Curriculum. This thrusts mandate teachers to use the mother tongue in teaching Mathematics, Science, and English in the primary grade levels. UNESCO advocates for the literacy in mother tongue to be given the top priority before progressing the national language (Boivin, 2017).

MTB-MLE in the K to 12 Basic Education Curriculum strongly supports the goal of "Every Child-A-Reader and A-Writer by Grade 1. It is the "first-language-first" education that is schooling which begins in the mother tongue and transitions to two or more additional languages as medium of instructions in school subjects (DepEd Order No. 74 series 2009).

The public school system in the Philippines adopted the multilingual policy starting 2012-2013. Republic Act no. 10533 in 2013 strengthened the pluralistic language policy in education. It made the principles of multilingual education the foundation of the formal education curricula. It refers to the use of the first language as the medium of instruction for all subject areas in pre-kindergarten through grade three learners with Filipino and English being taught as separate.

EMPIRICAL EVIDENCE

There are still concerns about the implementation of Mother Tongue-Based instruction with regards to the teachers' experiences towards the learners and the learners' reaction towards the mathematics lesson using mother tongue. It implies then, that one of the experiences is that mother tongue teachers designated to teach do not have proper training and reference material have no full understanding of the concepts in the mother tongue which they are expected to teach. The teachers do not fully understand how to implement the curriculum and the teacher's found difficulty in writing the concepts of the subject areas they are expected to teach using the mother tongue (Malone, 2009).

However, Benson (2004) noted that without specific formal training on multilingual strategies and practices, the instruction is likely to be ineffective to the learners. The parents were doubtful of their child that they might become a mother tongue expert and would affect the learning of the learners. They had also expressed their fear for the quality of education that their children will gain under the implementation of the program.

The concept of Mother tongue-based instruction started to emerge from the results of foreign studies. In countries like Australia, South Africa, and Iceland, studies were conducted by

Melencion(2017), and Phyak (2011) on the use of mother tongue-based instruction. It included also the study conducted by Walter and Dekker (2011) in the Philippine setting at Lubuagon MLE Program.

Couch (2016) studied the Math Teachers' Experiences learning and teaching Math in the Southwest United States. The purpose of this exploratory case study was to explore the perspectives of elementary math teachers toward teaching math, their preparation to teach math, and the possible influences they may have on their learners' math skills development. Data were gathered through questionnaires completed by 5 participants teaching kindergarten through 5th grade and the investigation of archival data of their learners' achievement test scores. Emerging themes were coded to record and organize relevant information. The participants indicated that teachers did not feel prepared to teach elementary math and that they want to gain more content knowledge and learn more strategies to teach Math.

The study of Coach (2016) is related to the present study on the implementation of teaching Math using MTB-MLE both aims to explore the perspective of elementary math teachers toward teaching math, their preparation to teach math, and the possible influences they may have on their learners' skills math development. Both studies used actual observation and questionnaires.

Balaoro (2014) investigated the Challenges of the Grade I Teachers in teaching using the mixed method of research were both quantitative and qualitative. The study employed a checklist as the main data-gathering tool. It also used a classroom observation guide, video recordings, and guide questions for the group interview. The study revealed that the Grade I teachers experienced challenges in teaching Mathematics and school support stakeholders.

The study of Melencion (2017) on the Teacher's Awareness about the K to 12 Program revealed that some of the teachers are asking to teach other language or vernacular, multilingual dialects that teachers cannot even speak and understand. At some point, this mother tongue somehow shows the difficulty in integrating solely mother tongue language as a medium of instruction.

The study of Cook (2017) explored the relationship between math anxiety and perceived self-efficacy for teaching mathematics in preschool teachers. The study employed a mixed-method design consisting of both quantitative and qualitative components. Qualitative data were analyzed for recurring themes to identify the life experiences to which the preschool teachers attribute their math anxiety and perceived self-efficacy for teaching mathematics. The respondents believed that completing a math methods course affected their teaching was dependent on strategies taught, hands-on experiences, and content targeting preschool math. The findings suggest the continued need for improved math instruction; improvements in the teacher preparation programs at universities; and mathematical professional development provided to preschool teachers.

This supports the study of Sario (2014) on the Implementation of Mother Tongue-Based Multilingual Education that teachers need to enhance and improve their teaching strategies for teaching the MTB-MLE.

Similarly, she stressed that learners actively participated in the class when they use their mother tongue language in the discussion.

Malone (2009) conducted a study on Mother Tongue-Based Multilingual Education noted the challenges met on the implemented MLE model of the teaching-learning process was lack of qualified mother-tongue teachers. Hence, 1) the mother tongue teachers designated to teach without proper training and reference material have no full understanding of the concepts in the mother tongue which they are expected to teach: 2) teachers do not fully understand how to implement the curriculum. This supports the study of Benson (2014) that without specific formal training on multilingual strategies and practices, the instruction is likely to be ineffective.

Cabansag (2014) conducted a study investigated the Strategies and Problems Encountered by the Teachers in Implementing Mother Tongue affirms the findings that the challenges which hinder the implementation of MTB-MLE are grouped into four significant themes: multilingual environment, difficulty in translation, the inadequacy of instructional materials, and mandatory compliance to the Department of Education.

Moreover, the teachers used strategies such as translation of target language to mother tongue, utilization of multilingual teaching, utilization of Lingua Franca, improvisation of instructional materials written in the mother tongue, remediation of instruction, and utilization of literary piece written in the mother tongue as motivation to the learners

Malone (2008) conducted a study on the experiences and suggested solutions to the challenges. The study stressed her point regarding the use of teaching strategies among multilingual teachers. A teacher who has mastered the various teaching strategies in teaching mathematics will find it difficult to translate it into a workable teaching experience if the teacher lacks the mastery of the language to which the teaching strategy activities are translated.

Also, a teacher must adopt the most appropriate teaching strategy suited for the level of the learner and the mastery of the prerequisite knowledge or concept as translated in the native dialect.

She also emphasized that teacher education is an essential component of successful and sustainable MTB-MLE. While the issues involved are complex and still a work in progress. It is fair to consider that there has been progressing. Thus relevant and useful collaborations among all stakeholders to look into the implementation of the program will lead to the successful implementation of MTB-MLE and mold the teachers into more effective math teachers in Grade I.

William's (2018) current study employed a mixed-methods research design to examine differences in math teacher efficacy based on experience, factors influencing math teacher efficacy, and the impact of Math teachers on pedagogical practice. Participants were nine math teachers of grades three through five in a rural Georgia elementary school. Bandura's construct of self-efficacy provided the theoretical framework for this study. Math teacher efficacy was assessed using the Math Teacher Survey, adapted from the Mathematics Teaching Efficacy Beliefs Instrument. Semi-structured interviews were utilized to gather information regarding participants' antecedent and professional experiences with math. The finding disclosed that there is no significant relationship was found between math teacher efficacy and the years of experience or between math teacher efficacy and pedagogical practices.

Moreover, Baker (2011) stated that teaching Mathematics using the mother tongue-based instruction would require particular care with the language. The Mathematical use of words differs from everyday use like minus, add, subtract, divide, difference, product, estimate table, etc. These terminologies can be more understandable by the children if used as it is than translated.

Stein and Bovalino (2001) investigated on their study on Manipulative in Mathematics Teaching. The study revealed that the use of manipulative in teaching is an essential tool in helping learners think ways used by the teacher Sinugbuanong Bisaya to Primary Grade learners.

Similarly, this supports the idea of Brock and Utne (2005) in their study in Language-in Education Policies and Practices in Africa that manipulation of the materials when compared to a mere discussion, provides learners with longer retention and permanent learning because they have felt and seen the actual device while lack of instructional materials can also hinder the transmission of content in local languages.

Fabrigar (2017) when using the mother tongue in the classroom revealed that the learners are more active, participative, and interactive. They have a common language to express their ideas, feelings, opinions, and the like. Learners' sense of belongingness is enhanced because they have the opportunity to part. She also emphasized that teachers need to have good classroom management styles to control the negative behaviors of students.

Sijapati (2017) investigated the effects of home language as the medium of instruction on improving primary school students' mathematical performance. The central hypothesis of the study was that indigenous students would improve their mathematical learning outcomes in English after being instructed in their home language. Further, findings from the experiments suggest that primary school students have a better understanding of the medium of instruction and culture embedded in it to improve their mathematical performance. A connection between new and prior knowledge can be established by the use of home language as the medium of teaching that facilitates students' learning and leads to better results.

Group or peer activities are encouraged in a multilingual education environment. Such activities will encourage the students not just to master the knowledge and concepts but will also provide for an avenue where the native dialect becomes a routine medium of exchange of ideas between about the lesson (Gunigundo, 2003).

Phyak (2011) did a critical analysis of language in education plans of Nepal with a special focus on the Ministry of Education's recent mother tongue-based multilingual education. Observation and interview were the gathering data method used by the researcher. The study revealed that there are no sufficient materials, textbooks, teachers, and other resources to help the teachers teach in local languages.

Balaoro (2014) revealed in her study that the support of the stakeholders is a highly noted challenge of the teachers in the implementation of the MTB-MLE Program. It is also their challenge in lesson planning whether to follow the suggested template in the distributed teaching guides or the education officials conducting instructional supervision over the teachers.

Similarly, Fabrigar (2017) accentuated that the school heads need to address the needs of the teachers, especially on instructional materials and books to facilitate effective instruction of the teachers when using the Sinugbuanong Binisaya.

Similarly, the study of Nolasco (2009) on the 21 reasons why Filipino learns better-using mother tongue revealed that children could easily express their ideas because they are not anymore afraid of committing mistakes when constructing their sentences. They can elaborate on their ideas since they are free to express these.

The Department of Education through DepEd Order 74 series of 2009 has established Mother Tongue-Based Multilingual Education as the fundamental policy in formal and non-formal education. Introducing the mother tongue to the basic education of the K to 12 Program has allowed the learners to learn in their level of understanding and capacity. Learners can have a better understanding of the lessons integrated into the class by the teacher.

The implementation of the DepEd Order 16 Series of 2012 was brought about by the influence of local and international research consistent with the Basic Education Sector Reform Agenda (BESRA) including the Lingua Franca Project (1999-2001) and Lubuagan First Language Component (1999 to present). These studies reiterated the use of the first language of the child as a medium of instruction for more effective learning.

The study of Lingua Franca Project (1999-2001) Lubuagan First Language Component (1999 to present) revealed that the learners who have mastered their first language can read and write faster in any second language. The purpose of the MTB-MLE program is to develop their skills in their language. It is a structured program of language learning and cognitive development that provides learners with a strong educational foundation in their first language. It envisions the following benefits including drop-out and repetition rates reduction, increase participation, children are learning, parents and community are involved and it is more cost-effective to implement

Interpretations/Implications of the Evidence

Furthermore, all the ideas gathered and related studies and literature of Melencion (2017), Phyak (2011), and Walter and Dekker (2011) in the Philippine setting Lubuagon First language Component showed on how MTB-MLE was adopted to the Department of Education. Their studies have similar findings that learners who have mastered their mother tongue can learn more in any second language. The program provided the learner an opportunity to learn at their level of understanding.

However, the study of Coach (2016), Balaoro (2014), Cook (2017), Sario (2014), Malone (2009), Cabansag (2014), William (2018), Baker (2011), Stein and Bovalino (2001), Fabrigar (2017), and Sijipati (2017) and other authors mentioned explored on various experiences by the teachers including their challenges in teaching Mathematics under the implementation of MTB-MLE. The cited literature had given the researcher an overview of how the study was conducted. Even though there were negative and positive experiences of the teachers in teaching Math using MTB-MLE but majority revealed that the use of MTB-MLE can positively help the learner's achievement.

RECOMMENDATIONS

Based on the findings, the following recommendations are offered for consideration.

Teachers may help one another in coming up with resource materials using the MTB-MLE as the language tool. They may establish relationships with school leaders and colleagues to make pedagogical innovations to successfully implement the MTB-MLE in teaching the learners. Peer mentoring could also be practiced in every school to help and support each other most especially in enhancing teachers' competence.

The teachers, parents, children, and other stakeholders can help each other in making instructional materials. The researcher recommended that the school/ district could conduct in-service training in IM's making.

The teachers should be given mother-based learning materials such as Sinugbuanong BInisaya Dictionary or Binukid-Matigsalog Dictionary, teacher's guide, manuals, and reference books.

The teachers should be encouraged to produce learning materials that reflect the learners' culture. These can be localized or indigenized songs, jingles, poems, and others that can be useful for their learning.

School administrators may support their teachers and learners. They shall address the needs of the teacher, especially on instructional materials, learning modules, and books to facilitate effective instruction using Sinugbuanong Bisaya. They may conduct in-service training for teachers to enhance the teachers' pedagogical practices in teaching mathematics using MTB-MLE.

The parents must have to extend their support to the school in making the localized learning materials that could be used by the teachers in teaching. They can collaborate with teachers in providing some of the activities that can promote their culture and heritage.

The Department of Education MTB-MLE Division Program, through the help of supervisors and school administrators, may conduct seminars and workshops for the teachers on the implementation of MTB-MLE that could improve teaching strategies in using MTB-MLE as the medium of instruction.

Generalizations

Based on the findings generated, there were varied experiences shared by the public elementary teachers in teaching mathematics using MTB-MLE. Despite the challenges and problems encountered, they were able to enrich the teaching and learning process. This enhanced teachers' instructional competence to help their students improve their academic performance. The proper implementation of Mother Tongue-Based Multilingual Education fosters continuous strong partnership among the school administrators, master teachers, teachers, and students to provide quality education to learners. Moreover, the teachers possess the attribute of being innovative and resourceful in response to emerging needs and concerns of the learners.

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