
| RESEARCH ARTICLE

Mother Tongue–Based Multilingual Education: The Case of Cervantes District

Jeremy G. Sanchez, EdD¹ ✉ Cathrine L. Tomas, PhD² and Susana N. Pe, PhD³

¹*Instructor I, Bachelor of Elementary Education, Ilocos Sur Polytechnic State College, Cervantes Campus, Cervantes, Ilocos Sur, Philippines*

³*Associate Professor II, Bachelor of Secondary Education, Ilocos Sur Polytechnic State College, Cervantes Campus, Cervantes, Ilocos Sur, Philippines*

Corresponding Author: Jeremy G. Sanchez, **E-mail:** geremy.sanchez@deped.gov.ph

| ABSTRACT

Since the implementation of the Mother Tongue–Based Multilingual Education (MTB – MLE) in the Philippines began, issues relative to it have been started to be documented in various works of literature. This case study explored the implementation of the MTB – MLE in Cervantes District, Cervantes, Ilocos Sur, Philippines. In particular, it sought to determine the issues encountered by MTB – MLE teachers, the perceived effects of the issues, and their coping mechanisms for mitigating the issues. Through thematic analyses of the extended texts, the study found the following issues: (1) a mismatch of teachers' and learners' dialects to the language of the book, (2) a mismatch of teachers' dialects to the dialect of the community, (4) dearth of instructional materials, and (5) irrelevance of available MTB – MLE books to the learners' dialect. Perceived effects of the issues include the poor delivery of classroom instruction, the poor performance of learners, and confusion. Teachers overcome these by employing the following mechanisms: (1) asking for help from colleagues and stakeholders, (2) translating unfamiliar terms to the dialect of the learners, and (3) improvisation of instructional materials written in the MTB – MLE. With these, a Framework was developed to guide MTB – MLE teachers in the implementation of the said program in the District. The paper advanced the need for teachers to attend faculty development activities to cope better with the challenges they encounter. Teachers may foster their relationship with the stakeholders to implement the program better. Teachers and future researchers may improvise contextualized instructional materials consistent with the learners' MT. Finally, the developed framework may be validated and utilized by teachers in implementing the same.

| KEYWORDS

Mother-tongue Based Multilingual Education, Challenges, Coping Mechanism, Cervantes District, Case Study

| ARTICLE INFORMATION

ACCEPTED: 01 April 2023

PUBLISHED: 15 April 2023

DOI: 10.32996/jhsss.2023.5.4.12

1. Introduction

The connections between language and education are paramount and are visible in various ways. Language facilitates education, and education helps in the acquisition of language. To justify this fact, Gorio et al. (2014) claim that language is the main medium of education as it is the tool in the delivery of instruction; literacy is the mode of education and is one of the foundations of education. Verbal intelligence is one of the most used predictors of educational success; foreign or second languages are traditionally an important part of the school curriculum; language has a profound effect on education.

With these connections of language and education, the importance of language has been considered significant to education, which has led curricular experts to understand further and prove the above claims. This gave birth to the identification of the Mother Tongue or the vernacular languages as media for instruction in the 1950s. This is in the context of the international effort to promote mass basic education. Note that higher literacy rates and greater access to formal education are necessary for national development (Gorio et al. 2014).

Copyright: © 2023 the Author(s). This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC-BY) 4.0 license (<https://creativecommons.org/licenses/by/4.0/>). Published by Al-Kindi Centre for Research and Development, London, United Kingdom.

In support of this, UNESCO 1953 issued a policy paper recommending that every pupil should begin formal education in his or her MT because this improves learners' performance. This has been strengthened by copious research studies (e.g. Hung, 2012; Giron et al., 2016; Tadeo & Queroda, 2020).

In the Philippines context, the Republic Act 10533, otherwise known as the Enhanced Basic Education Act of 2013, has recognized the MTB – MLE. It started to operate in the country in 2012 – 2013. Following the standards and principles in developing the Enhanced Basic Education Curriculum, the act clarified:

"The curriculum shall adhere to the principles and framework of MTB – MLE, which starts from the learners are and from what they already know, proceeding from the known to the unknown. Instructional Materials and capable teachers to implement the MTB-MLE curriculum shall be available."

Along with the implementation of the MTB – MLE, several studies revealed issues and concerns unstopably challenge teachers and learners (e.g., Alberto et al., 2016; Cabansag, 2016; Gorio et al., 2014; Lartec et al., 2014; Lopez et al., 2018; Valerio, 2015; Williams et al., 2014). These issues and concerns include limited resources for the subject, inconsistency of the teacher's guide to learner's materials, the irrelevance of language used in materials to the language of learners, the unfamiliarity of learners to the MT orthography, inadequate support and training for teachers, and limited development of pedagogic discourse in the MTs, according to Gorio et. Al (2014), These issues have caused negative attitudes of teachers and learners towards the MTB – MLE.

The persistent challenges mentioned above vary from one place to another, relying on the model the region has adopted based on the dominant people's vernacular (DepEd Order No. 16, series 2012). Likewise, Lopez et al. (2019) cited there is a persistent inequality – the gap between rural and urban education in the Philippines. Hence, studies among rural places, like this endeavor, are highly encouraged. With these accounts, this study at hand was conducted at Cervantes District, a linguistically diverse municipality of Ilocos Sur located at the midpoint of the provinces of Ilocos Sur, Mountain Province, and Int. J. Adv. Multidiscip. Res. (2022). 9(3): 52-71 54 Benguet, to determine the veracity of the DepEd Order and Lopez's assumptions. Similarly, it scientifically unveils the challenges that teachers of Cervantes District have been facing, which local studies (e.g. Sanchez, 2018) failed to explore.

With the foregoing research gaps, assumptions, and results from various works of literature on the issues in the MTB – MLE implementation, this study was conceptualized to describe the challenges encountered by MTB – MLE teachers, their coping mechanism, and the perceived effects of the challenges to both teachers and learners. At the outset of the study, the findings were determined with the hope of formulating a framework for MTB – MLE teachers.

2. Literature Review

Many countries have bilingual or multilingual societies, and more than 20 states have more than one national language. However, the majority of countries are monolingual nation-states, meaning that they have established one language to use for government and legal purposes (Bernede & Ward, 2014).

The Philippines is a multilingual society with more than 180 distinct languages. With the passage of the Republic Act 10533, after the publication of the promising result of the 10-year experiment in the use of MTs in the classrooms in the district of Lubuagan, the Philippine government introduced the use of MTs as the language of instruction in schools in 2012. These languages are allowed to be utilized and developed as media of instruction and languages of literacy by their users and speakers, alongside English and Filipino (Burton, 2013). This approach is called the MTB – MLE. This approach enables learners to acquire emerging literacy and numeracy skills in their MTs with the national languages taught as subjects in the first three grades, transitioning to instruction in English and Filipino from grade 4 onwards. Subjects like Mathematics, Science, Health, and Social Studies are taught in the said L1 (First language or vernacular) (Nolasco, 2008).

Despite its inherent academic and cognitive development benefits, several studies found that teachers have negative attitudes towards the program. For instance, Ong'uti et al. (2016) found that both teachers and learners had negative attitudes towards teaching and learning in MT. It also deduced that the poor attitude of teachers towards MT and preference for foreign languages as a mode of communication could attribute to a lack of proper training among the teachers and the unavailability of resources for teaching and learning in MT.

Similarly, the linguistic diversity in the Philippines challenges practitioners more particularly in selecting the most appropriate MT to use in every place, particularly in multilingual. To easily identify the medium of instruction in each, the DepEd proposed two models (DepEd Order No. 16, series 2012): Model 1: In classes in which the majority of learners have the same MT, then this language should ideally be used as the main language of instruction and learning; and, Model 2: In classes in which there are many MTs (3 or more), the predominant community language, typically a regional language shall be used. This solution assumes that

the lingua franca is the language familiar to the greatest number of learners, even though it might not be the first language of the majority. The proposed models adapted by the DepEd did not free the practitioners from issues as sparingly found by several research studies in the country (Alberto, 2016; Cariaga, 2015; Cabansag, 2016; Espada et al., 2018; Hunahunan, 2019; Lartec et al., 2014; Monje et al., 2019, 2017, Eslit, 2017, Valerio, 2015, Williams, et al., 2014;). These illustrate in the following texts.

The qualitative study of Lartec et al. (2014) in Baguio City, in which they described a melting point of cultures, revealed that teachers struggled with the absence of books written in their mother tongue, lack of vocabulary, and lack of teacher training. Their analyses further revealed that teachers used strategies such as translation of the target language to the 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 pieces written in the mother tongue as motivation. These findings made them forward that MTB - MLE teachers are faced with challenges yet handle them through their coping mechanisms. Similarly, the analyses of Cabansag (2016) on the stakeholders' perceptions of MTB - MLE implementation revealed persistent challenges that hinder the implementation. These include a multilingual environment, difficulty in translation, the inadequacy of instructional materials, and mandatory compliance with the Department of Education (DepEd) order. Amidst these challenges, they further found the benefits of the program, like expressing better ideas, building self-confidence, better retention, and promoting a friendly environment. Concludingly, the MTB – MLE imposed challenges, yet its benefits are felt.

The case study of Espada et al. (2017) found issues in the implementation of MTB - MLE. These include difficulty in understanding concepts, pronouncing and using archaic terms, code-switching, performing low in competitions carried out in English, and widening the gap between parents and children in the scaffolding process as the major challenges encountered by primary students, teachers, and parents in MTB- MLE. Key factors of the aforesaid issues included the use of archaic words as substitutes for scientific terms, mix-up of terms from three languages, teaching mother tongue as a separate subject, the mismatch between training and expected outcomes, the divergence of mother tongue at home from school, and lack of relevant materials. With these issues at hand, parents and children still favor English as their mother tongue while teachers reluctantly choose their mother tongue with a compromise - which is that it will only use to facilitate learning and not be considered a new language to be taught and learned.

At the same time, the qualitative investigation of Monie et al. (2017) found that the MTB - MLE implementation has been hampered by procurement issues and a lack of designated funds for the program's operational activities forcing the program to compete with other schools needs to fund its activities from general Maintenance and Other Operating Expenses (MOOE) of the schools. Notwithstanding the numerous problems it is facing, the MTB-MLE has a very solid pedagogical foundation and embodies the concept of learner-centered education. The study acknowledges the benefits of the MTB – MLE in instruction despite the issues along with its implementation.

Hunahunan (2017), likewise, found issues including inadequate representation of the cultural heritage of the children in their first language, insufficient and inadequate instructional materials and equipment, and the lack of teachers' training for appropriate MTBMLE teaching techniques and learning styles along with the implementation of MTB - MLE. Notably, teachers address these problems by employing various coping strategies, including self-training and study, asking for help from a more knowledgeable faculty, and shouldering the expenses of instructional material reproduction.

Eslit's (2017) general assessment of teachers, parents, and students in the implementation of MTB – MLE found the environment of the community, the difficulty in translating academic language —Binisaya to English and vice versa, and the limited resources and materials available to teachers and parents to support the efforts of the MT endeavor for the students. These are likewise consistent with the interview and focus group discussions made with the respondents. Along with these, the author forwarded the following mechanism to address the issues: materials development, teacher recruitment and preparation, language distribution, and parental support.

With the same interest, Alberto (2016) disclosed issues in the MTB – MLE implementation, including (1) the unavailability of audio materials that can strengthen the listening skills of the students, (2) the limited Hiligaynon (local dialect) vocabulary of the teachers, and the unfamiliarity of the words, (3) hard to speak fluently in Hiligaynon that resulted to the teaching of the different subjects using the second language which is English, (4) limited reading materials available for teaching, (5) lack of resources which could enhance learners' writing skills. Generally, the shortcomings are related to the scarcity of instructional materials and the lack of training for prospective teachers to teach their mother tongue. On the other hand, the teaching of the mother tongue revealed advantages in teaching such as learners were able to express their thoughts and ideas, resulting in high participation in class discussions; learners become independent in their choice of expression, and the use of mother tongue facilitates in explaining the meaning of some English words.

The study of Cariaga (2015) assured the teachers struggled to explain the different concepts and technical terms in science and English using Mother Tongue- Based Instruction. They are more fluent in English than in MT. Likewise, it revealed that teachers were not fully oriented in using Ilocano as their medium of instruction, that's why it was very hard for them to implement mother-Tongue Based Instruction.

Williams et al. (2014) found that the language used in some MTB – MLE learners' materials was different from the MT used in the school. Schools in small language contexts developed a wide range of strategies to meet the challenges they faced. These included school-level standardization of the MT, repetition of the same content in different languages, and parents relearning the MT along with their children. Teachers used English for classroom management, and students used code-switching to express their answers. Teachers also gave projects about math terminology in the MT. Valerio (2015), as cited by de Guzman, revealed that teachers were not yet confidently certain whether the instructional materials they presently have can assure that they can appreciate the MTBE due to the unavailability of localized translation along with the instructional materials. The study also provided empirical shreds of evidence to show that MT-Based instruction cannot elevate the learners' academic performances. Several other factors can be considered in dealing with MTB instruction. Teaching materials and assessments have not been transcribed into the regional or native languages of the learners. Results also showed that the respondents believed that the MTB-MLE policy must consider the development of graded transcribed reading materials in the learners' home language.

The works of literature above justify the prevalence of issues in the MTB – MLE implementation. Although several studies were conducted in this area justifying the existence of issues along with the MTB – MLE implementation, this study on hand did not acknowledge them yet in the locale of the study without scientific and critical investigations. These led to the conduct of this study at Cervantes District to describe the implementation of the MTB – MLE considering the unique feature of the place – the diversity of people in place. Particularly, the study delved into the challenges, perceived effects of the challenges, and the coping mechanisms of teachers. The findings served as a basis for developing a framework for MTB – MLE teachers.

3. Methodology

This qualitative study utilized the case study design. Case study design encompasses a comprehensive and rigorous analysis of a particular event, organization, situation, or social unit (Creswell, 2014, cited Ishtiaq, 2019). The design is relevant to satisfy the problems of the study since the issues on hand are the challenges and coping mechanisms of teachers in the implementation of MTB.

The study was conducted in the Cervantes district, Cervantes, Ilocos Sur, Philippines. Cervantes District is the only district in the entire division of Ilocos Sur that is located at the midpoint of the provinces of Ilocos Sur, Mountain Province, and Benguet. With its geographical position, it is called a melting point of cultures, in general, or dialects, in particular. People here speak different dialects, like different variations of Kankana-ey, different variations of Iloko, English, and Tagalog. With these, the district adopted Model 2, in which the regional lingua franca is used as the MT (DepEd Order No. 16, series 2012).

In selecting the key informants of the study, criterion sampling was employed in which four criteria were set. First, a group of teachers whose MT is the same as the MT of the community. Second, a group of teachers whose MT is different from the MT of the community. Third, a group of teachers whose MT does not go with the language of the book. Fourth and last are teachers who are willing to participate in the study. With the set standards, 15 teachers were identified, but only 9 were interviewed due to saturation of data. Data saturation analysis is a way to estimate sample sizes in qualitative studies. This is the point at which no supplementary data are being originated even though the data gathering persists (Guest et al., 2020). This clearly shows that the study is guided by data saturation and not the number of participants. After all, it was assumed that since no additional data were being found, data gathering need not continue.

A validated interview guide was used to gather data. In the guide, it was assured that the significant keywords in the statements of the problem were covered so as to achieve the purpose of the study. Robotfoto was also used during the preliminary parts of the interview to determine the profiles of the respondents relative to the set criteria. This was done with the school head. Then, the consent of the participants was sought through a consent form.

As soon as the letter to conduct the study was approved by the school head coordinator of the district, the study immediately commenced by identifying the respondents and seeking participants' consent. After this, the schedule was made between the participant and the researcher. During the data gathering, a face-to-face interview with the identified participants was done. Focus Group Discussion (FGD) was also undertaken by participants in some schools. After the interview and FGD, the data were summarized, transcribed, and translated. After it, the findings were communicated back to the participants, and follow-up questions and procedures were done to substantiate the data. Follow-up procedure includes the administration of the knowledge tests to both the identified teacher-participants and their learners. These tests, with different levels of complexities as to takers,

contain words taken from the available MTB – MLE books. These tools were expert-validated and reliability tested with a Cronbach Coefficient of 0.973, interpreted as reliable. To describe the levels of knowledge of teachers and students, the tables were used respectively.

Table 1: Scale to describe the level of knowledge of teachers

Range of scores	Descriptive Equivalent	Descriptive Interpretation
22 – 30	Very good	Much knowledgeable
15 – 21	Good	Knowledgeable
8 – 14	Fair	Not so much knowledgeable
0 – 7	Poor	Not knowledgeable

Table 2: Scale to describe the level of knowledge of teachers

Range of scores	Descriptive Equivalent	Descriptive Equivalent
16 – 20	Very good	Much knowledgeable
11 – 15	Good	Knowledgeable
6 – 10	Fair	Not so much knowledgeable
0 – 5	Poor	Not knowledgeable

With these undertakings, the study at hand followed a member-checking procedure to assure the validity, truthfulness, and trustworthiness of the emerging patterns and themes. Member checking procedure (Graneheim & Lundan, 2004 cited in Lartec, 2016) and a critical friend technique-involving expert were also employed. Finally, gathered data were treated with the utmost confidentiality.

Thematic analysis was used to comprehensively get meanings from the accounts. Themes were extracted from the extended notes and were subjected to reduction by means of a repertory grid. The grid presented the important accounts made by the participants that were classified using themes and interpreted carefully. Concurrent re-reading of the important statements of each respondent facilitated the surfacing of the important ideas and experiences of the respondents. For the warm analysis, highlighted words or phrases were proofread and analyzed to formulate categories and themes.

4. Results and Discussion

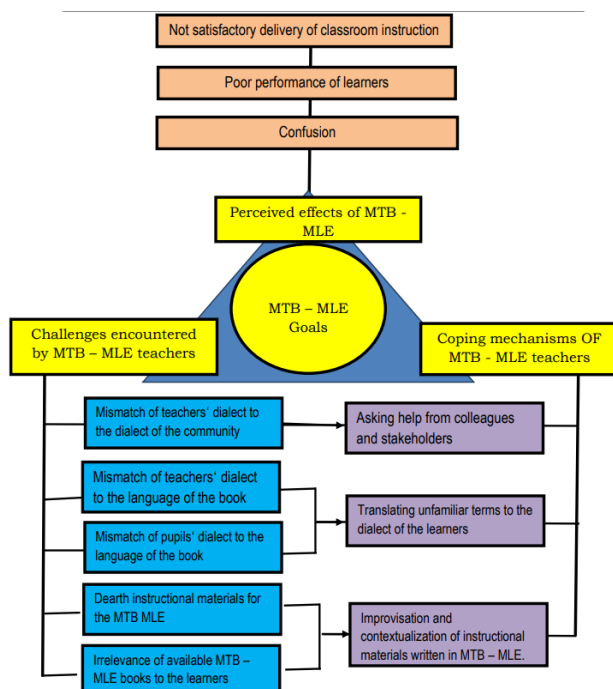


Figure 1. Framework of the implementation of the MTB – MLE in the Cervantes District

MTB – MLE started to operate in the country in the school year 2012 – 2013 under Republic Act 10533, known as the Enhanced Basic Education Act of 2013. Following the standards and principles in developing the Enhanced Basic Education Curriculum, the act clarified: “The curriculum shall adhere to the principles and framework of MTB – MLE which starts from the learners are and from what they already know proceeding from the known to the unknown. Instructional Materials and capable teachers to implement the MTB-MLE curriculum shall be available.”

The MTB – MLE benefits are inherent to its successful implementation. Sadly, several studies claimed persisting issues along with the MTB- MLE implementation (e.g., Alberto, 2016; Cariaga, 2015; Cabansag, 2016; Espada et al., 2017; Hunahunan, 2019; Lartec et al., 2014; Monje et al., 2019; Eslit, 2017; Valerio, 2015; & Williams, et al., 2014). The findings of the study, likewise, affirmed the above claim. However, coping mechanisms were applied to lessen these issues. The framework of the study in Figure 1 presents how teachers successfully implement MTB – MLE in the Cervantes District.

4.1 Challenges of MTB – MLE Teachers.

The challenges in this research are the difficulties of teachers and learners along with the implementation of the MTB – MLE namely, the mismatch of teachers` dialect to the language of the book, the mismatch of pupils` dialect to the language of the book, the mismatch of teachers` dialect to the dialect of the community, dearth instructional materials for the MTB MLE, and irrelevance of available MTB – MLE books to the learners `dialect.

Mismatch of teachers` dialect to the language of the book. Since the Cervantes District has diverse people using different dialects, it followed the Second Model of the DepEd Order No. 16, series of 2012, wherein classes with many MTs (3 or more), the predominant community language, typically a regional language, shall be used. In so doing, the Region`s Lingua Franca - the Iloko - is used as the language of all available books for the primary grades. These have caused difficulties among teachers in understanding some of the texts themselves, especially those teachers whose MT is pure Kankana-ey. The sample verbatims below support the claim:

“I do not know some terms used in the book. It seems other terms are so old enough that I could not understand” (P2)

Most of the terms in the book do not jive with my Mother Tongue; that’s why I, myself, sometimes have difficulties understanding some texts (P 4).

“There are some terms in the books which are terminologies of people from Pangasinan.” (P5)

“There are terminologies that are new to me that I have to ask from the parents of the community.” (P6)

“There are terminologies in the stories I do not understand. For instance, the term “baed”. This is not our dialect, so I do not understand what it means.” (P7)

The accounts divulged teachers, regardless of the dialect they use, encounter difficulties in the terminologies in the MTB – MLE books. This may be because the lingua franca of Region I is the Iloko which is not so much in the Cervantes District. To justify further, the knowledge test conducted among teachers revealed that most of them are not familiar with some words in the available MTB – MLE books in the district, as shown in Table 3.

Table 3: Level of knowledge of teachers on MTB-MLE terminologies

Ranges of scores	Percentage of participants	Descriptive Equivalent	Descriptive Interpretation
22 – 30	24%	Very good	Much knowledgeable
15 – 21	59%	Good	Knowledgeable
8 – 14	18%	Fair	Not so much knowledgeable
0 – 7	0%	Poor	Not knowledgeable

To note, the level of knowledge of teachers to words taken from the available MTB – MLE books is good, as manifested by the scores saturated between the range scores of 11 – 15. This shows that 59% of the teachers are knowledgeable about some terms used in the teaching guides and learning materials given to them, which means that teachers are unfamiliar with some terminologies from the MTB books. Looking closely at the table, 18 percent of the teachers are not so much knowledge about the words used in the books. This is so because the terms are not the Mother Tongue of the teachers themselves. This is a justification of the earlier findings that there is a mismatch between the teachers `dialect to the available instructional materials. The findings are similar to the study of Williams et al. (2014), stating the language used in some teachers` materials was different from the MT used in the school. This was also found similar to the finding of Sanchez (2018) titled Issues and Concerns in the Application of

Spiral Progression Approach (SPA) in Cervantes District where teachers encounter unfamiliarity with some terminologies of the books.

The findings imply that teachers need relevant training on MTB – MLE. This is similar to the findings of studies. For instance, Lartec et al. (2016) found that lack of teacher training is one of the most prevailing issues among the respondents.

Along with his data gathering, the respondents felt that training and seminars for teachers should be provided regularly, and academic support from the specialist on various issues of MT teaching is also required. Likewise, he claimed that some teachers are not prepared for the program because they have not undergone any training regarding MTB-MLE. Having a limited background in using MT as a medium of instruction can hinder in becoming an effective teacher.

The sharing of the respondents lends support to Dutcher (2004), who stated that teachers need training in using the first language in the classroom and that the materials have to be appropriate, available, and interesting to the learners, as well used. If they are not being used (the case in Guatemala from the recent study of the Grade 6 graduates), learning is not progressive. Most teachers need training in methodology so that they can exploit the advantages of teaching in a language that children can understand.

Mismatch of pupils` dialect to the language of the book. Learners are likewise experiencing the same issue as the teachers as perceived by the teachers themselves. They are not particular with the terminologies used in the books, while some do not entirely understand them because they speak pure Kankana-ey. These, among others, have perceived factors adversely affecting the English performance of pupils, particularly their English spelling ability, reading fluency, and reading comprehension. As a result, the prime purpose of the MTB – MLE as stipulated in the Department of Education Order No. 16, s. 2012 which include (1) language development, (2) cognitive development focusing on higher-order thinking skills (HOTS); (3) academic development; and (4) sociocultural awareness (Philippines Department of Education, 2012), do not fully realize as perceived by teachers. To support this, the excerpts from the extended texts are presented below.

“Many words in the book are not common to learners. The word “Gurabis”, for instance, could not be understood by the learners because this is not their MT...” (P5)

“The language of the book does not apply to the pupils because they cannot speak pure Ilocano...So, the book is not most of the time used” (P1)

“I do not teach what is in the book because I find it irrelevant to the MT of the learners.” (P2)

“Most of the words in the book... do not jive with the mother tongue of the learners...These unfamiliar terms sometimes confuse them.” (P4)

“The books (as an aide to comprehension) with unfamiliar terms are becoming useless because instead of helping the child to comprehend, unlocking of difficult terms are still required.” (P6)

“The books used unfamiliar Ilocano vocabularies.” (P7)

“The English spelling ability of learners who have undergone MTB – MLE is poorer compared to those who have undergone the Basic Education Curriculum...They usually spell English words the way they spell Ilocano terms” (P8)

These accounts were found to be similar to research findings. For instance, Williams et al. (2014) found that the language used in some learners’ materials was different from the MT used in the school. As a result, this becomes challenging for learners (Adriano et al., 2021). The qualitative findings above on the unfamiliarity of learners with terminologies on the MTB - MLE books are consistent with the level of knowledge of pupils, as presented in Table 2.

Table 2: Knowledge Level of pupils on words taken from the MTB -MLE Books

Ranges of scores	Percentage of participants	of Descriptive Equivalent	Descriptive Interpretation
16 – 20	0%	Very good	Much knowledgeable
11 – 15	70%	Good	Knowledgeable
6 – 10	20%	Fair	Not so much knowledgeable
0 – 5	10%	Poor	Not knowledgeable

Notably, the level of knowledge of pupils on the words taken from the MTB – MLE books is good. This is justified by the scores saturated between the range scores of 16 – 21. This means that 70% of the pupils are knowledgeable about the words used in the

book. However, the table urges the necessity to make learners more knowledgeable about all the terms in the book, as this would affect their comprehension skills. According to the study by Berg (2016), vocabulary knowledge plays an important role in the ability to understand both spoken and written sentences and, likely, students who have low oral vocabulary knowledge will also have poor reading comprehension skills.

Mismatch of teachers` dialect to the dialect of the community. Delivering classroom instruction is the prime role of teachers in schools (Cox, 2020). They are notable as significant characters in children's socio-cultural development (Vygotsky, 1994). To make the delivery of classroom instructions effective, there should be no language barriers that cause misconceptions (Abuarqoub, 2019). In other words, for a true MLE program to succeed in a country, one condition, which is the need for good teachers who are competent in the required language, should be met (Nolasco, 2008). The teacher and the learner should share the same dialect to exchange ideas with ease. They should have a common understanding of terminologies or the dialect in general. However, the study's findings at hand divulge that some teachers, exclusively the tenderfoot in service who have earned teaching experiences in private schools in the metropolises where English is the first language, do not only encounter issues with the terminologies used in the books; the worst, some of them do not use the dialect, thus do not understand the dialect of the community where they teach which have caused them negative feelings against themselves or the working environment, in general. The following accounts support the finding:

"...I did not expect that they speak Kankana-ey, which I am not used to ..." (P1)

"I often go out because I do not have the confidence to use their dialect...I feel intimidated to speak with them..." (P5)

"I am afraid I may be misinterpreted." (P4)

The accounts further show that some of the teachers are not fully capacitated and fully oriented with the dialect of the place where they are deployed. As a result, they tend to distance themselves from people. They are not confident to interact in the community for fear of being misinterpreted or misunderstood. The findings imply further that Cervantes District does not consider the familiarity of the teachers with the dialect of the place in the deployment or giving of teachers` assignments. This remains a challenge for neophyte teachers to be linguists or polyglots to thrive wherever they are assigned. As cited by Lartec et al. (2014), teachers need to be a linguist and/ or polyglots to address the needs of the pupils. This makes their learning interactive and meaningful. The finding is very similar to Lartec et al. (2014); teachers in the local of his study have insufficient knowledge of the spoken MT of the place where they teach. In their interview, two of the respondents said, *"The vocabulary of the teacher is not enough because we are not used to Baguio Ilocano. And not all learners understand Ilocano, although some can but have a low level of understanding of the language"* and *"We lack the vocabulary to be used in translating an English and Filipino word."*

The dearth of relevant instructional materials for the MTB-MLE. The dearth of relevant IMs pertains to the limited available materials relevant to the dialect of the diverse learners in the Cervantes District. According to the analysis of the responses, there were not enough relevant materials that were given in the far-flung areas. They only have one book to rely on, which according to them, is not enough. One respondent shared:

"There is a limited reference for the MTB – MLE." (P1)

"The 1 is to 1 ratio of book to the learner is not observed." (P3)

"There is no dictionary to refer to the unfamiliar words unlike English that they have Thesaurus. In MTB MLE there are no published contextualized dictionary." (P 3).

The accounts claim that books for the MTB – MLE are insufficient. Other teachers, too, desire to have a dictionary of the words. This further manifests the unfamiliarity of some teachers with some terminologies used in the books. The findings are similar to several research findings (e.g., Gorio et al., 2014; Lartec, 2016; Lartec et al., 2014; Nolasco, 2008; Valerio, 2015; Skoropinski, 2013). Singly, Valerio (2015) alleged teachers were not fully convinced that the instructional materials that schools have at present were enough. It was because the materials were not locally translated to fit the mother tongue of the learners. Most of what we used in schools was written in Filipino or in English. There were other learners who had no interest in learning the mother tongue, for they saw it as less important, especially to those who had no intention of staying in their place for good.

Irrelevance of available MTB – MLE books to the learners `dialect. It is sad to note that the dearth of available MTB – MLE books are irrelevant to the dialects of the place, particularly to schools found in indigenous places like Aluling Elementary School, Quinayad Primary School, Pilipil Elementary School, Malaya Elementary School, to mention a few. These are evident in the following accounts.

"I do not use the available books because they do not apply to the dialect of the pupils or the community, in general." (P1)

"The book does not go with the pupils` dialect. Also, topics are repeated...So, I do not use it" (P2)

"There were materials given as supplemental materials for MTB – MLE books, but we do not use it because our learners do not understand the language used..." (P3)

"Major subjects like Science and Mathematics become more complicated; that's why I use the old books written in English." (P4)

The findings go with the study of Skoropinski (2013), where he divulged that the non-MT educational materials were largely ineffective. Similarly, Lartec et al., 2014 found that there is a problem with the match of MT's language to the dialect of learners. Cognizant of the prevailing findings, the paper affirms the assumptions of the study that challenges are dependent on the model the region has adopted based on the dominant people's vernacular (DepEd Order No. 16, series 2012). However, it negates the citation of Lopez et al. (2019) that inequality – the gap between rural and urban education in the Philippines exists. This is trajected along the studies conducted in urban places (e.g., Alberto et al., 2016; Cabansag, 2016; Gorio et al., 2014; Lartec et al., 2014; Lopez et al., 2018; Sparks, 2012; Sparks et al., 2010; Young et al., 2016; Williams et al., 2014; Valerio, 2015) and the findings at hand.

2.2 Perceived effects of the MTB – MLE

Thematic analyses on the accounts subject to the repertory grid found that the aforesaid issues encountered by teachers in the implementation of MTB – MLE are indicators of poor implementation of the MTB – MLE. These perceived effects include not satisfactory delivery of classroom instruction, not the satisfactory performance of learners, and confusion. Not satisfactory delivery of classroom instruction. Due to the unfamiliarity of some teachers with the language of the available books in the district, some teachers do not fully deliver the classroom instructions required in the MTB – MLE framework of DepEd. The worst, some do not teach the topics using its MOI instead of English or Filipino. Some do not teach the subject at all. As a result, attainment of the MTB-MLE's aims, such as providing literacy, prior knowledge, cognitive development, higher-order thinking skills (HOTS), strong bridge, scaffolding, teaching for meaning and accuracy, and confidence-building and proficiency development for two or more languages along the following macro-skills (listening, speaking, reading, writing, and viewing) for both meaning and accuracy (K to 12 Mother Tongue Curriculum Guide, 2016), maybe paralyzed. The issue of unutilized books is justified in the following perceptions.

"I do not use the book to teach. They are not being understood by the learners." (P2)

"I do not teach the topics I do not know." (P3)

"I do not explain the topics using the available reference. I used the old books using English as MOI." (P5)

If the issue persists, the attainment of the learner's basic competencies set in the Curriculum Guide for MTB – MLE (K to 12 Mother Tongue Curriculum Guide, 2016) may not fully materialize. If this happens, the learners may be of difficulties learning the pre-requisite of the subject areas because of the curriculum design, which is the Spiral Progression (Sanchez, 2018). Spiral Progression Approach (SPA) aims to expose the learners to a wide variety of concepts/topics and disciplines until they master them by studying them over and over again but with a different deepening of complexity (Dunton & Co, 2019). This means that learners should master the prime concepts to fully understand higher concepts.

Poor performance of learners. Some teachers claimed that one of the negative effects of the MTB – MLE amidst the issues that surfaced earlier in the low performance of learners in other subjects like English (e.g., reading comprehension, spelling, and reading fluency), Science, and Mathematics. This is an indicator of poor implementation of the program. In fact, the following articulated:

"I prefer the old curriculum. The MTB – MLE made learners perform very poor in spelling. They tend to spell English words the way they are pronounced." (P4)

"Pupils were trained to read MTB – MLE. When they read in English; they tend to follow same rules as the MTB." (P1)

"Learners struggle in counting numbers using the MT." (P1)

The findings are similar to Namanya's (2017), where children exposed to the mother tongue proved a decline in English literacy level, confirming certain language acquisition theories and fears of some scholars. Contrastingly, Skoropinski (2013) divulged stakeholders reported improved comprehension by pupils, success in learning to read, and improved teacher-pupil relationships.

Confusion. Findings revealed that the issues encountered by teachers cause pupils confusion. This is likewise a gap in the implementation of MTB – MLE. The pupils are confused about the languages they are learning because of the dialect they are taught at home. There is still the influence of the English language they encounter. This could be seen in a respondent sharing: *"When pupils are asked to write the Ilocano term "tallo [three]", they don't know how to write it. But when you say three, they would easily write it. Parents teach English, so it is easier for them to understand." (TR 7)*

To Mondez (2013), learners have problems learning in the mother tongue because of their early exposure to the English language. This meant that they were more competent in English than in their mother tongue to the point that learning the mother tongue seemed like learning a foreign language for some of them.

2.3 Coping mechanisms of MTB – MLE teachers

In this study, the participants were asked to share their coping mechanisms to the identified challenges along with the implementation of MTB – MLE. This study defines the strategies applied by the teachers in coping with the issues. Analyses of the extended texts reveal the following coping mechanisms respective to the identified issues: asking for help from colleagues and stakeholders, translating unfamiliar terms to the dialect of the learners, and improvisation of instructional materials written in MTB – MLE.

Asking for help from colleagues, stakeholders, and learners. The most prevalent shared accounts of the teachers in coping with their experience of the mismatch of their dialect to the MT of the book,

"In my case as a multigrade teacher, when I encounter unfamiliar terms from my Grade I learners, I asked the help of the higher grades to translate it... When we have visitors, parents help translate statements of learners...." (P1)

"Since my colleagues do speak the dialect, I sought their help to understand learners` terminologies." (P7)

The findings reveal a positive relationship among the stakeholders.

Translating unfamiliar terms to the dialect of the learners. In the study, findings correspondingly reveal that teachers, pupils, and parents use translation to unlock unfamiliar terms from books. This is the main way they could understand each other better despite the differences in dialect. This is likewise used by teachers who do not speak the dialect of the learners, with the help of the learners themselves and/or the parents to understand each other.

Translation holds special importance at an intermediate and advanced level: in the advanced or final stage of language teaching, translation from the first language (L1) to the second language (L2) and from L2 to L1 is recognized as the fifth skill and the most important social skill, since it promotes communication and understanding between strangers" (Kavaliauskiene, 2009). Furthermore, Lartec et al. (2014) claimed that translation is very beneficial to learning when it comes to learning through the use of the student's mother tongue because it serves as a bridge to connect students to the lesson. The translation is sometimes referred to as the fifth language skill alongside the other four basic skills of listening, speaking, reading, and writing.

The following accounts justify the claim:

"I let the pupil repeat the term I do not understand and ask the learners 'help to explain the term through using it in sentences or through giving synonyms. For instance, the term Dagem. The first time I heard it I let them repeat then asked them the meaning of it. Only to find out the term means windy." (P1)

"I translate the Iloko terms in the books to Kankana-ey." (P2)

"I can speak Kankana-ey, but there are few Kankana-ey terms used by learners that I do not use. They are terminologies of other Kanakana-ey variations. I ask them to translate. In return, I also translate the Iloko terms from the book. "Parents speak the Ilocano while I speak Kankanaey, so I ask parents to translate some words for me." (TR 7)

The findings project the teachers` dedication to their work and their flexibility. Some teachers are taking too much time in translating these Ilocano terms into the dialect to which the learners could relate (TR1, TR2, TR3, TR8). This implies that teachers are dedicated to their work and how concerned they are with their learners. The fact that it is a mandate to teach the subject MTB – MLE, they are patiently trying their very best to teach this the best way they can. This is attested by the phrasal statements the respondents have used like *mapanak makisasao (to parents) no ... haan ko kaya ... nga i-translate dagiti dadduma nga sao ... [I ask the help of parents to translate some works] (TR1), and an-anusak... [Patiently] (TR 2).*

The findings go with the study of Lartec et al. (2014), the primary strategy of teachers to use MTB – MLE is translation to the Mother Tongue of the learners, to wit: For the respondents, translation is important for the reason that it helps them address the needs of the pupils who have different languages. Moreover, teachers need to translate the lesson using all the pupils' mother tongues for better understanding (p.5).

The findings further reveal the role of stakeholders in education. The simple way of helping the teacher translate terminologies for others proves the significant roles of stakeholders in education. This is supported by the claims that follow:

"There was one time that Ilocano visitors from the Division Office came to visit our school. They were amazed by the fluency of our learners in Kankana-ey. The visitors talked to them in Ilocano, but the learners answered back in Kankana- ey. The learners understand them, but the visitors do not. It happened that parents were there with me to help me in making the visitors understand our learners 'responses through translation.'" (P1)

"There are parents who help me in welcoming visitors, especially those that I do not understand, they would translate it for us. They adjust for us." (P1)

Lartec (2016) noted that parents have significant roles in multilingual classrooms. Aside from helping teachers understand the vocabularies of learners, their perspective also plays a significant in developing instructional materials for the learners.

Improvisation of instructional materials written in MTB – MLE. Analyses of the transcribed accounts exposed some teachers to improvise instructional materials written in MTB – MLE. Some teachers employ contextualization to available references. The claim is drawn from the following accounts:

"I contextualize instructional materials. I make poems and short stories for the learners. This makes more learners relate to the topic" (P5)

"I localize parts of the book that are found irrelevant to learners 'dialects.'" (P6)

The findings show that some of the teachers are improvising and contextualizing instructional materials to make their instruction more meaningful and more engaging, thereby improving the performance of the learners. The teacher's perception of contextualization goes with some works of literature. For instance, Reyes et al. (2019) testified contextualization is one of the keys to engaging the students in the teaching-learning process because they can relate their situations to their lesson. In fact, several studies claimed that contextualization significantly increases the learning of students (e.g., Chen et al., 2019; Perin, 2011; Moghaddas, 2013; Ning et al., 2017; Wang et al., 2021).

5. Conclusion

Cervantes District MTB – MLE teachers are encountering difficulties along with the implementation of MTB – MLE like a mismatch of teachers' dialect to the language of the book, mismatch of pupils' dialect to the language of the book, mismatch of teachers' dialect to the dialect of the community, dearth instructional materials for the MTB MLE, and irrelevance of available MTB – MLE books to the learners' dialect causing adverse effects to students such poor delivery of classroom instruction, the poor performance of learners, and confusion. However, it is noteworthy that MTB – MLE teachers cope with these challenges by employing practical mechanisms like asking for help from colleagues and stakeholders, translating unfamiliar terms to the dialect of the learners, and improvisation of instructional materials written in MTB – MLE. This case manifests that teachers are resilient when faced with challenges.

In light of the findings and conclusions, the following recommendations were forwarded: (1) Faculty development programs relative to MTB – MLE through training and workshops may be designed to help MTB – MLE teachers cope better with the challenges they usually encounter along with the implementation of MTB - MLE in the district. Since this study was only limited to identifying challenges, future studies may be done to determine each difficulty's level of seriousness; (2) MTB – MLE teachers may continue to explore other adverse effects of the MTB – MLE in classroom instruction to come up with an inventory of its effects. The inventory may serve as a basis for administrators to develop an action plan to improve and foster the implementation of the MTB – MLE in the Cervantes District. (3) MTB – MLE teachers may foster their excellent relationship with the stakeholders through Learning Action Cells sessions, the conduct of regular Parent-teacher association meetings, and other activities that require stakeholders' involvement. Capability building relative to contextualization and improvisation of MTB – MLE instructional materials may be conducted among MTB – MLE teachers in the district. Development of validated and contextualized glossary of terms, dictionaries, and other reading materials for the MTB – MLE subjects may be done by the teachers of other future researchers. (4) MTB – MLE teachers may validate the developed framework and then utilize it after. (5) Since this endeavor only included a very few numbers of participants due to some socio-polical factors which are beyond the researchers' control, the study recommends for the conduct of future studies covering a larger scale of participants and a wider scope of locale. Moreover, since the study is merely exploratory, a quantitative study may be conducted to determine further the degree of seriousness of the encountered challenges and the level of effectiveness of the identified mechanism.

Funding: This research received no external funding.

Conflicts of Interest: The authors declare no conflict of interest.

Publisher's Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers.

References

- [1] Abuarqoub, I. (2019). Language barriers to effective communication. *Utopia y Praxis Latinoamericana*, vol. 24, núm. Esp.6. 64-77. https://www.redalyc.org/journal/279/2796_2177008/html/
- [2] Adriano, M., Franco, N., & Estrella, E. (2021). Language-in-education policies and stakeholders' perception of the current MTB-MLE policy in an ASEAN country. *The Australian Journal of Language and Literacy*. <https://search.informit.org/doi/abs/10.3316/informit.743231975707872>
- [3] Alberto, V. (2016). Issues and Concerns in Teaching Challenges in Teaching MT–Based Multilingual Education in Grades II and III: Philippines Experience. University of the Philippines. Retrieved from <https://www.academia.edu/39366950>
- [4] Berg, E. (2016). Measuring the Effect of Vocabulary Instruction on Reading Comprehension: A Comparison of Academic and Tier II Words. *University Int. J. Adv. Multidiscip. Res.* (2022). 9(3): 52-71 68 of North Dakota UND Scholarly Commons. Measuring The Effect Of Vocabulary Instruction On Reading Comprehension: A Comparison Of Academic And Tier II Words (und.edu)
- [5] Bernede, J.F. & Ward, B. (2014). Education Sector - Analytical and Capacity Development Partnership Indonesia. <https://www.dfat.gov.au/sites/default/files/2014-indonesia-acdp-mid-term-review.pdf>
- [6] Burton, L. (2013). Mother Tongue-Based Multilingual Education in the Philippines: Studying Top-Down Policy Implementation from the Bottom Up. Published Dissertation. University Of Minnesota. https://conservancy.umn.edu/bitstream/handle/11299/152603/Burton_umn_0130E_13632.pdf
- [7] Cabansag, J. (2016). The implementation of MT–Based Multilingual Education: seeing it from the stakeholder's Perspective. *International Journal of English Linguistics* 6 (5):43. <https://www.ccsenet.org/journal/index.php/ijel/article/view/63178>
- [8] Cariaga, J. (2015). Problems Encountered by Grades 1 and 2 Teachers using Mother Tongue Based Instruction of all South District Schools in Alicia. *Asia Pacific Journal of Research*. <http://www.apjor.com/>
- [9] Chen, M.P. (2019). Effects of caption and gender on junior high students' EFL learning from iMap-enhanced contextualized learning. Elsevier. <https://www.sciencedirect.com/science/article/abs/pii/S0360131519301551>
- [10] Cox, J. (2020). What Is the Role of a Teacher? ThoughtCo. <https://www.thoughtco.com/what-is-the-role-of-a-teacher-2081511>
- [11] Department of Education Order No. 16, series of 2012. Guidelines on the implementation of the Mother Tongue-Based- Multilingual Education (MTB-MLE). <https://www.deped.gov.ph/2012/02/17/do-16-s-2012-guidelines-on-the-implementation-of-the-mother-tongue-based-multilingual-education-mtb-mle/>
- [12] Dutcher, N. (2004). Promise and perils of mother tongue education. Center for Applied Linguistics, Washington, DC. The USA. <http://www.eppinformation.org/files/searching-for-solutions/language-education/promise-and-perils-of-mother-tongue-education.pdf>
- [13] Dunton, J. & Co, W. (2019). Spiral Progression Approach in Teaching Science and the Performance of Learners in District I, Capiz. *Journal of Physics: Conference Series*. <https://iopscience.iop.org/article/10.1088/1742-6596/1254/1/012045/pdf>
- [14] Esliit, E. (2017). Mother Tongue Based Multilingual Education Challenges: A Case Study. Edelweiss Applied Science and Technology. <https://edelweisspublications.com/articles/44/96/Mother-Tongue-Based-Multilingual-Education-Challenges-A-Case-Study>
- [15] Espada, J.P., Bayrante, J.R., Mocerro, R.E., Vinculado, O.P., Virero, P.M., Bongcaras, L.L, Daga, M.N., Pelingon, J.C., Quimbo, E.M., & Labarrette (n.d). CHALLENGES IN THE IMPLEMENTATION OF THE MOTHER TONGUE-BASED MULTILINGUAL EDUCATION PROGRAM: A CASE STUDY. *Research Journal of English Language and Literature (RJELAL)*.
- [16] Guest, G., Namey, E., & Chen, M. (2020). A simple method to assess and report thematic saturation in qualitative research. The PMC website. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7200005/>
- [17] Giron, P.R., Aguirre, R., Flojo, O.C., Gutierrez, M.M., & Llagas, A.T. (2016). Teaching And Learning Languages And Multiliteracies: Responding To MTB - MLE Challenge. Lorimar Publishing.
- [18] Gorio, D.A., Galino, A.M., Morales J.B., & Palileng, J.B. (2014). Factors affecting the implementation of the mother tongue-based multilingual education as perceived Int. J. Adv. Multidiscip. Res. (2022). 9(3): 52-71 69 by teachers in baguio and benguet. <https://sites.google.com/site/languageand-mother-tongue/home/research-on-mtb-mle-implementation>
- [19] Lartec, J.K., Belisario, A.M., Bendanillo, J.P., Binas-o, H.K., Bucang, N.O., & Cammagay, J.W. (2014). Strategies and Problems Encountered by Teachers in Implementing Mother Tongue - Based Instruction in a Multilingual Classroom. The IAFOR Journal of Language Learning, Volume I - Issue I. <https://eric.ed.gov/?id=EJ1167236>
- [20] Lopez, M.S., Coady, M.R., & Ekid, A.F. (2016). Rural indigenous teachers' lived experiences in mother tongue education in the Philippines: Counter-stories of resistance. https://www.researchgate.net/publication/338388335_Rural_indigenous_teachers'_lived_experiences_in_mother_tongue_education_in_the_Philippines_Counter-stories_of_resistance
- [21] Hunahunan, L.C. (2019). Coping With Mtb-Mle Challenges: Perspectives of Primary Grade Teachers in a Central School. *International Journal for Social Studies*. <https://journals.eduindex.org/index.php/ijs/article/download/6221/2791/>
- [22] Hung, N.V. (2012). Mother Tongue Use in Task-Based Language Teaching Model. Canadian Center of Science and Education, English Language Teaching; Vol. 5, No. 8. ISSN 1916-4742 E-ISSN 1916-4750. <https://files.eric.ed.gov/fulltext/EJ1079743.pdf>
- [23] Ishtiaq, M. (2019). Creswell, J. W. (2014). Research Design: Qualitative, Quantitative and Mixed Methods Approaches (4th ed.). *Thousand Oaks, CA: Sage. English Language Teaching; Vol. 12, No. 5; 2019* ISSN 1916-4742 E-ISSN 1916-4750.
- [24] Kavaliauskienė, G. (2009). ROLE OF MOTHER TONGUE IN LEARNING ENGLISH FOR SPECIFIC PURPOSES.ROLE OF MOTHER TONGUE IN LEARNING ENGLISH FOR SPECIFIC PURPOSES. <https://pdf4pro.com/amp/cdn/role-of-mother-tongue-english-for-specific-purposes-4eb395.pdf> K to 12 Mother Tongue Curriculum Guide. (2016). <https://www.deped.gov.ph/wp-content/uploads/2019/01/Mother-Tongue-CG.pdf>

- [25] Lartec, J. (2017). Strategies and Problems Encountered by Teachers in Implementing MT-Based Instruction in a Multilingual Classroom. School of Teacher Education, Saint Luis University, Baguio City, Philippines. Retrieved from <https://iafor.org/journal/iafor-journal-of-language-learning/volume-1-issue-1/article-4/>.
- [26] Lartec, J.K. (2016). Parents' and Teachers' Collaborative Perspective: An Input for a Model on Materials Development in a Multilingual Setting. *Journal of Research Initiatives*. <https://digitalcommons.uncfsu.edu/cgi/viewcontent.cgi?article=1060&context=jri>
- [27] Lorbiz, J.C. (2019). Utilization of Contextualized Teaching and Learning (CTL) Approach in Grade Two Araling Panlipunan. [https://files.eric.ed.gov/fulltext/ED603874 .pdf](https://files.eric.ed.gov/fulltext/ED603874.pdf)
- [28] Mondez, R.G. (2013). Appropriateness of Mother-Tongue Based Multi-Lingual Education (MTB-MLE) in Urban Areas: A Synthesis Study. [https://www.semanticscholar.org/paper/Appropriateness-of-Mother-Tongue-Based-Education-\(Mondez/15888c5d37b53123cfff679032a6cc761c1217b4](https://www.semanticscholar.org/paper/Appropriateness-of-Mother-Tongue-Based-Education-(Mondez/15888c5d37b53123cfff679032a6cc761c1217b4)
- [29] Monje, J. D., Orbeta, A. C., Kris F.A., & Capones, E. M. (2019). Starting Where the Children Are: A Process Evaluation of the Mother Tongue-Based Multilingual Education Implementation. Philippine Institute for development studies. <https://www.econstor.eu/bitstream/10419/211080/1/1669364232.pdf>
- [30] Moghaddas, B. (2013). THE EFFECT OF CONTEXTUALIZATION ON THE IRANIAN EFL LEARNERS' PERFORMANCE IN READING TASKS. *International Journal of Educational Int. J. Adv. Multidiscip. Res.* (2022). 9(3): 52-71 70 Science and Research (IJESR). https://www.researchgate.net/profile/Bahram-Moghaddas/publication/236665438_THE_EFFECT_OF_CONTEXTUALIZATION_ON_THE_IRANIAN_EFL_LEARNERS'_PERFORMANCE_IN_READING_TASKS/links/552faa1c0cf22d437171187b/THE-EFFECT-OF-CONTEXTUALIZATION-ON-THE-IRANIAN-EFL-LEARNERS'-PERFORMANCE-IN-READING-TASKS.pdf
- [31] Namanya, S.J. (2017). The effects of mother tongue-based multilingual education on the English literacy of children in Silang, Philippines. *International Forum* Vol. 20, No. 2. https://www.researchgate.net/publication/337855312_THE_EFFECTS_OF_MOTHER_TONGUE_BASED_MULTILINGUAL_EDUCATION_ON_THE_ENGLISH_LITERACY_OF_CHILDREN_IN_SILANG_PHILIPPINES/link/5def0dcf92851c836470603a/download
- [32] Ning, N. (2017). The direct and moderating effect of learning orientation on individual performance in the banking industry in China: contextualization of high-performance work systems. *Asia Pacific Journal of Human Resources*. <https://onlinelibrary.wiley.com/doi/abs/10.1111/1744-7941.12141>
- [33] Nolasco, R. (2008). The Prospects of Multilingual Education and Literacy in the Philippines. https://www.seameo.org/_ld2008/documents/Presentation_document/NolascoTHE_PROSPECTS_OF_MULTILINGUAL_EDUCATION.pdf
- [34] Ong'uit, C.O., Aloka, P.J., & Raburu, P. (2016). Factors Affecting Teaching and Learning in Mother Tongue in Public Lower Primary Schools in Kenya. *International Journal of Psychology and Behavioral Sciences* 2016, 6(3): 161-166. <http://article.sapub.org/10.5923.j.ijpbs.20160603.10.html>
- [35] Perin, D. (2011). Facilitating Student Learning Through Contextualization (Assessment of Evidence Series). <https://ccrc.tc.columbia.edu/publications/facilitating-student-learning-contextualization.html>
- [36] Republic Act 10533 or Enhanced Basic Education Curriculum. <https://www.officialgazette.gov.ph/2013/09/04/irr-republic-act-no-10533/>
- [37] Reyes, J.D., Insorio, A.O., Ingreso, M.V., Hilario, F.F., & Gutierrez, C.R. (2019). Conception and Application of Contextualization in Mathematics Education. *International Journal of Educational Studies in Mathematics*, 2019, 6(1), 1-18. https://www.researchgate.net/publication/342589195_Conception_and_Application_of_Contextualization_in_Mathematics_Education/link/5efc34d1299bf18816f60e8c/download
- [38] Sanchez, G. (2018). Issues and Concerns of Teachers in the Application of Spiral Progression Approach. Unpublished Thesis.
- [39] Skoropisnki, X.R. (2013). An Exploration of the Responses of Stakeholders to a Mother Tongue-Based Multilingual Education (MTB-MLE) Programme Being Implemented in Pilot Schools in Mindanao, Philippines. https://www.researchgate.net/publication/267982338_An_Exploration_of_the_Responses_of_Stakeholders_to_a_Mother_Tongue-Based_Multilingual_Education_MTB-MLE_ProgrammeBeing_Implemented_in_Pilot_Schools_in_Mindanao_Philippines
- [40] Tadeo, G.P. & Querona, P.G. (2020). Relationship of the Use of Mother Tongue-Based Multilingual Education to the English Learning Competencies of Pupils. *ASEAN Journal of Basic and Higher Education*. 2020. https://www.researchgate.net/publication/340593281_Relationship_of_the_Use_of_Mother_Tongue-Based_Education_Int_J_Adv_Multidiscip_Res_2022_93_52-71_71_to_the_English_Learning_Competencies_of_Pupils
- [41] Wang, X. (2021). Exploring the Relationship between Community College Students' Exposure to Math Contextualization and Educational Outcomes. <https://link.springer.com/article/10.1007/s11162-021-09644-w>
- [42] Williams, A. (2014). Curriculum Forum for Understanding Best Practices in MT-Based Multilingual Education (MTB- MLE) in the Philippines. The University of Melbourne.
- [43] Valerio, M.B. (2015). Current Perspectives on Mother – Tongue Based Instruction in the Newly Implemented K to 12 Curriculum. European Centre for Research Training and Development UK. <https://www.eajournals.org/wp-content/uploads/Current-Perspectives-on-Mother-Tongue-Based-Instruction-in-the-Newly-Implemented-K-to-12-Curriculum-of-the-Philippines.pdf>
- [44] Vygotsky, L.S. (1962). *Thought and Language*. Cambridge, MA: MIT Press. (Original work published in 1934).