INVESTIGATING BEST PRACTICE IN MTB-MLE IN THE PHILIPPINES

PHASE I PROGRESS REPORT: STRATEGIES AND CHALLENGES IN MTB-MLE IMPLEMENTATION IN THE EARLY YEARS

ACTRC

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Front page image: *Mural in the MT inside the Small language context school*

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ABBREVIATIONS

DECS	Department of Education, Culture and Sports
DepEd	Department of Education
DO	Department of Education Order
FGD	focus group discussion
FLC	First Language Component
KII	key informant interview
LD	linguistically diverse
LL	Large language
LM	Learner's Material
MLE	multilingual education
MOI	medium of instruction
MT	mother tongue
MTB-MLE	Mother Tongue-Based Multilingual Education
MTS	Mother Tongue Subject
NGO	non-government organization
PNG	Papua New Guinea
SL	Small language
SY	school year

INTRODUCTION

Given the linguistic complexity of the Philippines, it is not surprising that the country has struggled in establishing a national language and in institutionalizing a medium of instruction (MOI) for schools. While there had been a bilingual education system using English and Filipino, the vernaculars had also always been used in schools (Gonzalez, 2003).

In 2009, Mother Tongue-Based Multilingual Education (MTB-MLE) was institutionalized under Department of Education (DepEd) Order No. 74. This reform is consistent with widespread implementation of mother tongue (MT) education in many comparable countries, such as Papua New Guinea (PNG), Thailand, China, Cambodia, and Malaysia. Some earlier attempts at implementation under former Department of Education, Culture and Sports (DECS) Secretary, Br. Andrew Gonzalez were successful, particularly in Lubuagan, where a program received considerable non-government organization (NGO) support. The motivation for the policy is that learning in a language familiar to the child helps establish a strong foundation for further education and literacy development (Ocampo, 2006).

The MTB-MLE policy was piloted in school year (SY) 2010-2011 in selected pilot schools ("DepEd Develops Learning Supplements Using Mother-tongue," 2011; Martin, 2011) and SY 2011-2012 in 921 'pioneer' schools across the country. In this report we have extended the range of the term 'pioneer' to include all schools involved in those initial years of implementation (DepEd Order (DO) No. 16, s. 2012). By the time the full program rolled out across the school system in SY 2012-2013 (DO No. 16, s. 2012), 12 MTs were in use. Another seven were added in 2013 (DO No. 28, s. 2013), and more are soon to follow. A strategic implementation plan has been designed. Consequently, logistical preparations to support full-scale program implementation have been made, instructional materials have been continuously developed and cascading training for teachers has been held periodically. As might be expected from a starting program, some concerns have surfaced, such as mismatched MTs and schools (Agreda, 2013), cultural segregation of pupils (Philippine News Agency, 2012) and a limited list of official MTs (Department of Education (DepEd), n.d.).

The inclusion of MTB-MLE as a banner program of the K to 12 Law (The Enhanced Basic Education Act of 2013) raises the status of MTB-MLE and also connects it with other significant reforms. As the national roll-out of MTB-MLE commences, there is a need to investigate and understand what happens as it is implemented in schools. There is a gap in the literature regarding large-scale, state-based MT education because the overwhelming majority of documented programs have been conducted as experimental projects in community schools, which unlike DepEd schools, have enjoyed intensive support from NGOs. This study aims to investigate the effective strategies that Philippine public schools, which receive support mainly from DepEd, are devising in MTB-MLE implementation. Such strategies include but are not limited to those that are prompted by challenges. Challenges were also investigated, since many strategies are better understood in the light of the concerns that prompted them. In addition, the study aims to explore how identified challenges and strategies relate to the status and nature of the MTs and to levels of community involvement and support. For this discussion, the label 'MTB-MLE' is used to refer to the program itself. The two modes of implementation are the use of the mother tongue in the early years classroom, and the offering of the mother tongue as a subject or learning area. The former is labeled as 'the use of the MT as MOI', and the Mother Tongue Subject is labeled 'MTS'.

The first two phases of the study focus on the following two questions. Phase 1 of the study addresses these questions on a small scale in order to inform the conduct of the last two phases of the research, which aim to answer the same questions on a wider scale (Phase 2) and at a deeper level (Phase 3).

1. *What successful strategies have schools used in addressing the challenges of implementing MTB-MLE?*
2. *How have the context dynamics of the MTB-MLE program, such as the nature and status of the MT, community involvement and support, influenced strategies and challenges?*

As the first phases of the study seek to identify both the strategies that schools are using and the challenges they are facing, the study selected schools in different circumstances of implementing MTB-MLE, in each of the four language contexts identified by the study. These will be explained below. The study included 'pioneering' schools and schools 'new to MTB-MLE', which began using the MT as MOI in SY 2013-14. It was anticipated that selection of both types of school would provide a more comprehensive overview of the strategies developed and challenges faced by schools than a selection of schools implementing MTB-MLE for the same period of time.

REVIEW OF RELATED LITERATURE

In recent years, bi- and multi-lingualism have gained worldwide attention due to several studies that relate them to academic achievement and cognitive and academic development (Barron, 2012; Ocampo, 2006; World Bank, 2005). MTB-MLE has also been found to improve students' self-esteem and cultural identity (Barron, 2012; Ocampo, 2006; Kuper, as cited in Ouane, 2003; Benson, 2001), and make learning more enjoyable (Ocampo, 2006). For teachers, MTB-MLE provides more effective pedagogical strategies (Kuper, as cited in Ouane, 2003) and improves communication with parents regarding student learning (Barron, 2012; Ocampo, 2006; Baker, Kovelman, Bialystok, & Petito, 2003; Benson, 2001). For the community, the program recognizes and preserves home culture and language (Ocampo, 2006; Kuper, as cited in Ouane, 2003; Benson, 2001), provides several social benefits (World Bank, 2005; Kuper, as cited in Ouane, 2003) and ultimately lowers education

Inside a Kindergarten classroom in the Linguistically diverse context school

costs (World Bank, 2005). The focus of research has now shifted from the efficacy of multilingual education (MLE) to the question of how MLE programs can be implemented successfully in different contexts worldwide (Cummins, 2013).

A review of literature on the implementation of MT education programs around the world indicates that the most popular multilingual program type uses the students' first language for their entire primary education while second or additional languages are gradually introduced through language subjects and later used as MOI. In the Philippines, the current policy is to use the MT as MOI for the first four years of education (Kindergarten to Grade 3). Filipino and English are gradually introduced as subjects in Grades 1 to 2, before being adopted as the MOI from Grade 4 onwards.

BEST PRACTICES

Malone (2010) provides a comprehensive set of features that characterize strong or successful MTB-MLE programs:

1. Research on language attitudes, community goals, needs, and program resources;
2. Mobilization to increase interest and support;
3. Recruitment, staff training and supervision;
4. Orthography development;
5. Development of instructional methods;
6. Systematic literature development and distribution;
7. Management and coordination of staff;
8. Evaluation and documentation;
9. Systems for generating, distributing, and documenting funds; and
10. Supportive political environment and agencies.

The literature further identifies foundations of success in the different components of MT education programs, namely: language, curriculum, materials, training, funding, and community involvement (Malone, 2010). These are discussed below.

Language. The language used as MOI needs to have a recognized orthography and some degree of standardization. In some instances this is a necessary precursor to the use of an MT as MOI, as in the Pwo Karen Program in Thailand, where the development of a script and a working orthography for the MOI involved the collaboration of linguists, educators and native speakers (Young, 2009). Similarly, an MOI requires a metalanguage for content area teaching. MLE programs in South Africa and Nigeria have worked at developing a technical science and math vocabulary. The Yoruba Project, for example, published a book of science and math terms in nine Nigerian languages.

Localized/Indigenized Curriculum. An MLE curriculum should be anchored in community ethnolinguistic knowledge, practices and beliefs. Examples are the integration of farming activities in the Ratanakiri curriculum in Cambodia, the use of cultural calendars in Malaysian programs, and the emphasis on the relationship of the community and the child in Tok Ples PriSkuls in PNG (Young, 2009).

Materials. MLE success is complemented by localized reading materials in the MT (Skutnabb-Kangas, 2008). For the Lubuagan First Language Component (FLC) in the Philippines, materials development and production involved teachers, community members and the Summer Institute of Linguistics. The process took years, but implementers patiently ensured that enough materials were prepared before the program commenced (Dekker & Duguiang, 2003; Dekker & Dumatog, 2003).

Teacher Training. Program evaluation has shown that MLE teachers need to speak the MT well (Ball, 2011) and know how to use it as MOI (Pinnock, n.d.). European schools give native speaker teachers in-service training for teaching in their MT. This MT communication proficiency is an important complement to subject matter mastery, particularly of science teachers (Nonlomo, as cited in Benson & Kosonen, 2013). In PNG and South Africa, program implementers have collaborated with universities in providing

nationwide teacher trainings. NGO-supported projects like the Lubuagan FLC and Ratanakiri Program provided year-long trainings in the form of monthly meetings, refresher courses and consultations (Dekker & Duguiang, 2003; Dekker & Dumatog, 2003).

Funding. An important pragmatic consideration is finances (Skutnabb-Kangas, 2008; Buhmann & Trudell, 2008), but various programs worldwide, like those in Guatemala, South Africa, and PNG, have demonstrated that MLE can operate despite meager budgets. Affordable instructional materials can be produced, teacher salaries can be shouldered by communities, and support can be generated from livelihood projects or solicited from NGOs and Local Government Units.

Community Involvement. Parental and community support and involvement are often manifested in curriculum design and materials development. In Thailand and the Philippines, community members become resource speakers in classes and teacher training activities (Young, 2009). In PNG, communities have chosen languages for teaching, recommended teachers, built schools, remunerated teachers, and modified the curriculum. In Cambodia, CARE Intl. has involved communities in curriculum development, materials production, and identification of volunteer teachers (Benson & Kosonen, 2013). As community members become more engaged, a deeper ownership and accountability for the program is fostered.

ISSUES AND CHALLENGES

The literature also reveals the following issues and challenges that arise in the implementation of MT education programs. These may inhibit the degree of effectiveness that programs experience, or hinder the smooth implementation of a program. 'Issues' are areas of concern, where different dynamics or choices may influence the outcomes of MT education; 'challenges' are specific problems that require a response or strategy.

Code-switching, or switching between languages, is an issue in MT education. While pedagogical, cognitive, communicative, and social functions justify classroom code-switching, it has also been attributed to some inadequacies in the target language (Chick, 1996). Hence, code-switching is something to look out for in the use of the MT as MOI, since it appears to be an advantage when it is judiciously used for pedagogical and communicative purposes. Teachers and pupils face the challenge of how to use code-switching in a way that will facilitate rather than hinder goals of MT education.

Utility of languages. Some MT education researchers argue that the use of home languages in schools will not raise the value of indigenous languages until they are languages of opportunity (Skutnabb-Kangas, 2008; Heugh, as cited in Ouane & Glanz, 2011). To be so, minority languages need to be accorded functions in political and social domains, used in standardized assessment, and made visible in the community's and the nation's linguistic landscape.

Forced compliance with program. After initial MTB-MLE implementation in Bicol, Philippines, some teachers who felt compelled to implement the program manifested a form of silent resistance to it by designing lessons that deviated from MTB-MLE principles (Burton, 2013). A lack of identification with the program may have led teachers to adopt practices inconsistent with its rationale or to implement it without enthusiasm.

FOUR DIMENSIONS

These strategies and challenges identified in the literature (Malone, 2010) can be organized into four major dimensions:

- *Language.* This covers the status and nature of the MT and all other perceptions and beliefs about it.
- *Instruction.* This covers teaching strategies and techniques which may include but are not limited to the use of materials during teaching.
- *Materials.* This covers the acquisition, development, or production of all kinds of lesson resources which include teacher-made or DepEd-provided materials and

those produced by other publishers or individuals.

- *Program.* This covers program dynamics, logistics and MTB-MLE implementation activities that are beyond the classroom level, such as teacher training, campaign mobilization, delivery of Learner's Materials (LMs), the conduct of extra- or co-curricular activities, and program monitoring.

Vocabulary building activity in the MT (Iloko) in the Large language context school

METHOD

As a scoping study, Phase 1 of the project aimed to identify practices and issues for broader and deeper investigation in the later phases of the research. To scope possible answers to the research questions, a qualitative methodology was employed in a small number of schools, through class observations, teacher training observation, documentation of classroom and school linguistic environment, key informant interviews (KIIs), and focus group discussions (FGDs). Qualitative data were organized and coded to identify recurrent themes.

The *language* dimension of the study comprises the nature, characteristics and contexts of languages used in MTB-MLE. Variables in the linguistic landscape of the Philippines include the size of speech communities, the status of the MT, and some MTB-MLE programs' use of Tagalog dialects, which are closely related to Filipino. While one MT is dominant in some schools and communities, there are also schools and communities where several MTs are used and none is dominant (Gonzalez, 1998; Young, 2011).

To account for this diversity, two schools were identified from each of the following language contexts:

- *Large language (LL) contexts,* in which schools use an MT with more than 2 million speakers (excluding Tagalog), such as Cebuano, Iloko and Hiligaynon;
- *Small language (SL) contexts,* in which schools use an MT with fewer than 2 million speakers;
- *Tagalog contexts,* in which schools use a Tagalog dialect (distinct from Filipino) as an MT;
- *Linguistically diverse (LD) contexts,* where schools and community members speak a number of MTs.

The two schools from each context were recommended by DepEd division MTB-MLE coordinators. They were asked to nominate schools they considered to be successfully

implementing MTB-MLE in the early years, and schools that were facing challenges. When these suggestions were analysed, it was evident that what the schools considered successful was implementation of the program since the earliest opportunity – they were 'pioneering' or central schools, which also had strong community and school head support for the use of MT as MOI, or the presence of MT teachers who are trainers or curriculum writers. The schools considered to be facing challenges were in the early stages of implementing MTB-MLE. As discussed below, the differences between the two can be explained by the stage of implementation at which they are observed. The sample was limited to Luzon due to practicalities of access and security. The distribution of schools, the MTs taught and used as MOI, and the locations of the schools are presented in Table 1.

Table 1. Contexts of schools participating in Phase 1

Language context	Mother tongue used as MOI	Location(s)
Large language (more than 2 million speakers)	Iloko	Northern Luzon
Small language (fewer than 2 million speakers)	Minasbate	Southeastern Luzon
Tagalog	Tagalog (including local varieties)	Bulacan and Marinduque
A linguistically diverse community	Iloko, Pangasinan, and Tagalog	Pangasinan

PROFILE OF LANGUAGE CONTEXTS SELECTED FOR THE STUDY

Large language context. The Iloko language, with 7 million speakers (Ethnologue, 2014) was selected to represent the LL context for this study, and is the regional lingua franca of Northern Luzon. The schools involved in the study were located in Laoag City and Pangasinan. Both schools used their own Iloko varieties as MT. The one in Laoag was described by the people as 'pure Iloko.' The difference in the varieties involves some phonemic variation.

The Laoag school was a pioneer implementer of MTB-MLE, having commenced the program in 2011, and is also the District Central school with the largest population of teachers and students. Parents here were usually tricycle drivers or professionals. The Pangasinan school was in its second year of MTB-MLE implementation, with pending implementation in Grade 3. The school was in a flood-prone area and classes were usually suspended when typhoons came. Most parents were farmers or Overseas Filipino Workers, and the school head reported that families were economically well off.

Small language context. Masbate was selected to represent the SL context in this phase of the study. It is an island province in the Bicol Region (Region V), where Bikol is the predominant language, and is surrounded by provinces belonging to different regions of the country, namely Region IV-A which is predominantly Tagalog-speaking, and Regions VI, VII, and VIII where Hiligaynon, Cebuano, and Waray respectively are important languages. This location explains the presence of different languages in the province. However, Masbate was chosen to represent the SL context because Minasbate, the provincial language, is an SL and is the MT being implemented by the province's schools.

Two Masbate schools participated in this study. One is an MTB-MLE pioneering school near the pier, located in the city center, where regular contact with outside influences leads to language changes such as the adoption of new words and

expressions (often influenced by Filipino), while the other is a school new to MTB-MLE, located in a more remote area where daily life is less affected by contact with outsiders and linguistic practices are more conservative.

Tagalog context. For this study, the Tagalog context is represented by the varieties spoken in Marilao, Bulacan and Balanacan, Marinduque. The Bulacan school was a pioneer MTB-MLE implementer. It was situated near an area that housed relocated settlers from nearby Manila. The many factories in Bulacan have drawn workers from across the country and made it a cultural melting pot. A significant number of parents are local workers in factories and other establishments. Only 20 percent of teachers in the visited school are locals of the area, but they are Tagalog speakers, albeit of a variety different from Bulacan's. The school head emphasized the highly urbanized character of the place, which had affected the environment and the Tagalog variety in the area. The convergence of cultures and the proximity of the place to metropolitan Manila, another melting pot, has saturated Marilao-Bulacan Tagalog, making it very similar to the Tagalog of Metro Manila.

In comparison to the saturated Marilao-Bulacan Tagalog variety, the Tagalog spoken in Balanacan, Marinduque is more distinct. The Balanacan school is new to MTB-MLE, with only two years of implementation. As a tourist destination, Balanacan is commonly visited by English-speaking foreigners, who have been known to practice their Tagalog by speaking to the locals, who in turn polish their English by conversing with the tourists. Copra-making and fishing are the primary livelihoods of the visited community, which is near a seaport. Children with port worker parents or those who lived near the port were observed to use a 'coarse' register associated with seafarers and port workers.

Linguistically diverse context. In this study, an LD context is one in which two or more MTs are spoken in schools and communities. The districts chosen to represent this context were Manaoag and Pozzorubio I, in the province of Pangasinan in Region I. The province is bound by the Cordillera Mountains to the east, Zambales to the west, Tarlac to the south and the Lingayen Gulf and the China Sea to the north (Province of Pangasinan, 2014). This strategic geographic location makes Pangasinan a melting pot in Northern Luzon where the major languages spoken are: Tagalog, the language of wider communication; Iloko, the regional lingua franca; and Pangasinan, the provincial language.

According to linguistic mapping data drawn from the early grades in Manaoag District (DepEd, Division of Pangasinan II, 2014), Pangasinan is the MT of around two thirds of the students, while Iloko is the MT of the other third. Available data on Grade 2 pupils for Pozzorubio I indicated that there were 471 pupils with Pangasinan MT, 501 pupils with Iloko MT, and no recorded Tagalog native speakers.

PROFILE OF PARTICIPANTS

Of the eight schools selected, five have been implementing MTB-MLE for two years, while the others are pioneer schools that have been implementing it for three years. The sample has more schools new to MTB-MLE since there was no pioneer school in the visited LD context. Still, the two schools chosen from this context reflect the initial intention of choosing one effective school and one facing challenges. Four of the schools have regular programs only, and the rest have combinations of regular, special science and special education programs. One of the eight schools has fewer than 500 students and has five MT teachers, while four of the schools have over a thousand students. The largest school has 3000 students and over 20 MT teachers. All the schools are implementing the use of assigned MTs in their area except for one, which uses two MTs, Iloko and Pangasinan, as media of instruction. All 27 classes observed in the schools were implementing MTB-MLE. The classes ranged in size from 25 to 55 students.

Eight school administrators were interviewed. Two were male and the ages of all the administrators ranged from 38 to 52 years. All

were native speakers of the MT used as MOI in their schools. Their number of years as school administrator in their current school ranged from two to five years.

Thirty-two MT teachers were observed and interviewed. Only one of these was male. Their ages ranged from 24 to 61 years. Only three teachers were not native speakers of the MT used as MOI. Only four reported having a teaching load of fewer than six hours. Their years of teaching range from a few months to more than 25 years, but their years of teaching in the MT range from a month to almost three years for teachers in pioneer schools.

Of the five MTB-MLE coordinators, one did not return the questionnaire. Two of the remaining four have been coordinators for three years, since the MTB-MLE implementation in pioneer schools, while two are newly assigned to the position. All MTB-MLE coordinators reported that all elementary schools in their DepEd area are implementing MTB-MLE in the early grades.

INSTRUMENTS

Instruments and interview schedules were designed with the aim of understanding strategies used and challenges faced in the implementation of MTB-MLE in the schools. Four research assistants who are native speakers of the identified MTs were trained in using the instruments for the study and in conducting the interviews. They worked with a research team member on site visits scheduled over several consecutive days in January to February, 2014.

A self-administered questionnaire was given to the MT teachers, school administrators and MTB-MLE coordinators to obtain a profile of the study participants that included demographics, school and class information, and language background.

An interview guide was constructed for the key informant interviews focusing on MTB-MLE program implementation, teaching practices, strategies used, challenges encountered and impressions on student outcomes. FGDs with parents were held with the aim of documenting the parents' understanding of and views on MTB-MLE.

Classroom observations were employed with the aim of documenting the learning environment and classroom activities across seven major components: time, activities and episodes, linguistic activities, language/s used, content of class discussion, language and literacy skills, and code-switching instances initiated by the teacher or student/s. Also noted were lesson materials used by the teacher, student engagement, salient features of the MT, and classroom linguistic landscape.

DATA COLLECTION

Each school visit lasted one to two days and involved interviews with a school administrator, MT teachers, and a FGD involving eight to ten parents of children in the MTB-MLE program. Four classroom observations in the early grades (Kindergarten to Grade 3) were conducted in each school covering the subjects MTS, Filipino, Math and Science. In addition, digital photographs were taken of the linguistic environment of the schools (signs and notices in the school grounds) and the MT classrooms (wall charts, lists of words, other posters and signs displayed on walls).

All interviews and FGDs of study participants were transcribed, and those administered in MTs other than Tagalog were translated to English by hired native-speaker translators. Documentation of lesson materials used, student work samples, and school and classroom linguistic environment was conducted in line with Child Protection Policy. Phase 1 data collection and instruments were assessed and approved by the University of Melbourne Human Research Ethics Committee (Ethics ID number 1341113.1).

Members of the research team also observed three days of the five-day 2014 National Training of Trainers and Regional Mass Training of Grade 3 MTB-MLE Teachers in order to gain understanding of the training program. There was no recording or analysis of data collected in these observations. They simply served to help

researchers understand how training was conducted and to confirm informants' feedback regarding the nature of the training.

DATA ANALYSIS

Data gathered in this study were analyzed using the qualitative data analysis computer software package NVivo 10. The software allowed the researchers to organize data and identify the major recurring themes in KIIs, FGDs and classroom observation data.

Collected data were classified according to different themes or topics (called 'nodes' in NVivo 10) which were organized in hierarchies composed of more general topics (parent nodes) to more specific ones (child nodes). A total of 30 parent nodes represented recurring themes observed in the data collected; new nodes that emerged were added by working through the parent nodes.

Appendix 1 presents samples of the NVivo data coding. Table A1.1 presents parent nodes clustered into the major dimensions of the study. The first and second columns show the nodes and their descriptions respectively, and the last column indicates the number of references coded at the given nodes. Figure A1.2 shows samples of classroom materials coded for implementation, Figure A1.3 shows samples of interview data coded for implementation, and Table A1.4 shows samples of the coding of interview extracts. Table A1.5 presents the parent nodes (in boldface) and their child nodes in the first column. Node descriptions and number of references are also featured in the second and third columns.

This classification enabled analysis of the frequency of issues or phenomena captured by the data and the exploration of correlations between items of data that were considered relevant to more than one node. In this way, significant issues and strategies were identified and connections were made between items coded as having relevance for different issues.

The inter-rater reliability between the two coders during the first and third quarters of data coding was computed using the Coding Comparison Query on NVivo that gives the extent of agreement that could be expected to occur through chance. The level of correlation revealed by this analysis was within the satisfactory range stipulated by the software designers.

FINDINGS

Generally, the collected data show that program implementation is taking place in the visited public schools. At this point, teachers in all contexts have observed that pupils understand their lessons better and express themselves better under MTB-MLE, and these observations are reflected in class assessment scores, which are better than the ones pupils received before the program implementation. Pupils were also reported to be more participative, more inquisitive, and more confident in the use of the MT. Parents likewise appreciated hearing their children sing or declaim in the MT or use some profound MT vocabulary. As a whole, schools have responded well to the challenges of MTB-MLE implementation. In fact, a great majority of the challenges faced have been addressed through the resourcefulness and initiative of teachers, school heads, and coordinators. A comparison of pioneering schools and schools new to MTB-MLE shows that both develop strategies of implementation, some of which are devised to address challenges. However, pioneering schools have encountered more challenges and have likewise devised more strategies in the course of a longer MTB-MLE implementation. It was also observed that schools new to MTB-MLE were capable of devising effective strategies despite the relatively shorter period of implementation. Regardless of the length of implementation and the context they are in, all of the visited schools developed strategies to address most of the challenges they encountered.

IDENTIFYING STRATEGIES AND CHALLENGES

The following discussion presents the findings in relation to the study's first research question:

1. What successful strategies have schools used in addressing the challenges of implementing MTB-MLE?

An overview of the strategies and challenges that emerged from the analysis of the data is presented in Table 2. It represents a concise statement of the overall situation in all the schools and contexts. The strategies, shown in the column on the left, relate to the challenges they address. The challenges, shown in the column on the right, are presented in descending order of the frequency in which they were observed in the four contexts of the study. The strategies and challenges are grouped into the four dimensions of the study (*Language, Instruction, Materials and Program*). The colors used to shade the challenges column have stronger tones to represent a higher occurrence and lighter tones to represent a lower occurrence across the contexts. The language contexts in which the strategies and challenges were observed are indicated by the letters in parentheses: 'L' for Large language, 'S' for Small language, 'T' for Tagalog, and 'D' for LD contexts.

Table 2 shows that some strategies and challenges, such as the use of school funds for materials production, were present in a number of different language contexts. There were also some challenges found only in particular contexts. For example, parents re-learning MT words and expressions along with their children was recorded in the SL context, but not in the others. Most notably, teachers in the Tagalog context identified the challenge of distinguishing between learning in the (Tagalog) MTS and the Filipino subject. In the SL context, parents explicitly stated a preference for pupils to use English for learning in Math. The need for standardizing the MT was felt in the small and LL context, while a limited pedagogic MT discourse was experienced in the LD area.

Table 2. Strategies and challenges by dimension and language context

STRATEGIES	CHALLENGES
LANGUAGE	
	Limited use and value of the MT in areas outside the community (L, S, T, D)
	The community's higher value/regard for English (L, S, T, D)
School-level standardization based on spelling, pronunciation, and word choice of terms with several versions (S)	Lack of standardization of the MT (L, S)
Teachers' use of on-the-spot correction and modeling (T)	Some pupils' use of non-academic register of the MT (S, T)
	Preference for Filipino because of prestige or practicality (S, D)
Use of English for classroom management, class routines, greetings, etc. (S)	Limited MT pedagogic discourse (D)
Parents' hiring of a MT-speaking tutor (D)	Parents' low proficiency in the MT (S)
Parents' re-learning of MT along with their children (S)	
	Perception that the MT is a less challenging language to learn (S)
INSTRUCTION	
Teachers' use of English terms for math (T)	Long MT words for math (L, S, T, D)
Teachers' use of English terms which pupils already know (T)	Limited use of the MT for academic purposes (L, S, T, D)
Teachers' reading of local magazine in the MT (L)	Teachers' low proficiency in the MT (L, S, T, D)
Teachers' use of code-switching to get by inadequate MT vocabulary (L, T, D)	
Teachers get practice by using the MT as medium of instruction (T)	
Teachers' use of translation to deepen explanation (L, S, T, D)	Parents' perception of children's difficulty in adjusting to the MT as MOI (L, T, S, D)
Teachers' use of translation during assessment (L, T, D)	
Teachers' use of Filipino for pupils who do not speak the MT yet (S, D)	
Teachers' use of code-switching to avoid profound MT vocabulary (D)	
Use of drills on MT terms for colors, shapes, numbers, etc. (S, D)	
Teachers' translation of explanation to all languages of the pupils (S, D)	
Parents' use of demonstration to explain math concepts (L)	
Students' use of code-switching to express answers (S)	
Teachers' use of realia (D)	
Teachers' use of pictures (D)	
Parents' hiring of a MT-speaking tutor (D)	
School head's program monitoring (T)	Parents' perception that children lag behind in other languages (L, S, D)
Teachers connect similarities of MT/English/Filipino to one another (S)	Pupils' perceived repetition of lessons in language classes (S)

Giving projects on numbers and their corresponding MT equivalent (S)	Parents' preference for English as MOI in math (S)
Conduct of meetings to identify similar competencies and modify activities and instructional materials for similar competencies (T)	Teachers' difficulty to distinguish learning competencies and differences between Filipino subject and MTS (T)
Conduct of workshops on teaching MT and Filipino by supervisors (T)	Teachers' confusion about spiraling for MTS and Filipino subject (T)
Use of drills on MT vocabulary items (S)	Pupils' unfamiliarity with MT letters and sounds (T)
MATERIALS	
Use of school funds (e.g. MOOE) for materials production (L, S, T, D)	Incomplete or late delivery of instructional materials (IMs) in MT (L, S, T, D)
Teachers' continuous production of IMs (L, S, T, D)	
Teachers' asking for IM copies from friends and colleagues (L, T, D)	
Coordinators' encouragement for big and small book production (L, S)	
Teachers' use of local magazine as additional MT resource material (L)	
Teachers' sharing of pool of resources in the same grade level (T)	
Organizing a school program for materials production (T)	
School head's borrowing of materials from schools with more resources (D)	
Teachers' use of personal gadget and equipment for class if school has no/limited resources (T)	Limited use of technology (L, S, T, D)
Conduct of meetings for sharing of ideas and materials among MT teachers and/or supervisors or/coordinators (L, S)	Time and expenses demanded by materials production (L, S, T, D)
Teachers' overtime work to produce materials (T, S)	
Parents' monetary contribution for materials reproduction (T)	
Parents' donation of books to school library (L)	
Teachers' use of own money to augment insufficient school funds (T, S)	
Teachers' translation of English TG to the MT (T)	TGs are in English (L, T, D)
Teachers' substitution of unknown terms with MT words actually used in the community (L, T)	Non-contextualization of LMs (L, T, D)
Teachers do on-the-spot translation during instruction (T)	
Teachers' use of texts/materials that pupils really know (T)	
Teachers' translation of LMs to the pupils' MT (D)	TGs do not match pupils' LM (L)
School heads' and teachers' request for LMs in Filipino (S)	Mismatch between pupils' MT and language used in LMs (S)

STRATEGIES	CHALLENGES
PROGRAM	
	Teachers' feeling of forced compliance with the policy (L, S, T, D)
Establishing strong linkage among the school, division, and regional offices (L)	Limited program advocacy (L, S, T, D)
School head's use of people skills to encourage stakeholders (T)	
Conduct of more school projects to keep parents engaged/involved (T)	
Conduct of a general assembly of parents and community officials (T)	
Use of language mapping data to determine program MT (D)	Mismatched MOI and MT (S, D)
Giving of homework to connect child's learning at school to the home (S)	Weak stakeholder support (L, S)
Establishing strong linkage among the school, division, and regional offices (L)	Inconsistency between program policies and activities (S, T)
	Limited number of teachers sent to training (S, T)
Featuring teachers' felt concerns in locally organized trainings (T)	Inadequate support for MT teaching by provided trainings (T)
Forming classes according to pupils' MT and assigning multilingual teachers (D)	Accommodation of non-MT speaking migrant pupils (T)

Strategies in response to many, but not all, of the challenges are recorded in the data. While some of these are shared across contexts, the strategies are not as widely distributed across the different contexts as the challenges. In relation to *Language*, for instance, while there was evidence of strategies related to the limited standardization and academic registers of the MT, they seem on the surface to contradict aspects of the rationale for MTB-MLE. This will be discussed further in the next section. The perceived limited utility of the MT beyond the immediate community and the related preference for English were challenges to which schools had not yet developed responses. This is perhaps not surprising, given that the program is still in its early years of implementation. The perceived utility of different languages relates to the language ecology of the nation more than to practices in the classroom. With respect to *Materials*, schools and teachers have developed a wide range of responses to the challenges they have encountered. These include finding ways of overcoming shortages of materials and developing classroom strategies that also respond to inadequacies in the materials. Some of the responses make additional demands of time and expense on the teachers but, on the whole, these seem to be demands that the teachers are willing to meet. The data also reveal a wide range of strategies used in *Instruction* to meet the challenges of using the MT as MOI. A significant number of strategies seem to be intended to facilitate learning and address the perceptions of parents about their children experiencing difficulties with the use of the MT as MOI.

However, although Table 2 aligns strategies with challenges, it should be noted that some strategies were found in language contexts where a corresponding challenge was not found. For example, in the SL context teachers used English for classroom management, even though the corresponding challenge (limited MT pedagogic discourse) was identified in the LD context. Table 3 presents these strategies classified according to the identified program dimensions that appear in the literature. Data provided by teachers, school heads, and coordinators indicate that these strategies were viewed as good practice in program implementation and not adopted as deliberate responses to specific challenges. Also

included in Table 3 are two other strategies – the establishment of strong links between school, division and regional offices, and the featuring of teachers' felt concerns in locally organized trainings – that school heads and division coordinators also saw as good practice even though the corresponding challenges were not found in these contexts. These apparent mismatches indicate that, to date, these strategies have been effective enough to pre-empt potential challenges. Or, they may be seen as 'natural' practices, rather than responses to particular challenges. Implications of these strategies will be further explored in the discussion that follows.

Table 3. Strategies not linked to specific challenges in the same context

LANGUAGE
Use of English for classroom management, class routines, greetings, etc. (S)
Parents' hiring of a MT-speaking tutor (D)
INSTRUCTION
School head's program monitoring (T)
Use of drills on MT vocabulary items (S)
MATERIALS
Teachers' translation of LMs to the pupils' MT (D)
PROGRAM
Establishing strong linkage among the school, division, and regional offices (L)
Featuring teachers' felt concerns in locally organized trainings (T)
Forming classes according to pupils' MT and assigning multilingual teachers (D)

CHALLENGES AND STRATEGIES VIS-À-VIS THE NATURE AND STATUS OF THE MT

This section presents findings for the study's second question:

2. How have the context dynamics of the MTB-MLE program, such as the nature and status of the MT, community involvement and support, influenced strategies and challenges?

In the study, the status of the MT refers to the extent of its standardization and its level of utility in the major domains of communication in society. An MT's status is also influenced by the number of speakers it has and the regard accorded to it by speakers and non-speakers alike. In contrast, the nature of the MT refers to its linguistic characteristics, which include phonological and vocabulary features, among others.

While the development of strategies may have been prompted by challenges encountered in the implementation of MTB-MLE, the MT's nature and status have also played a substantial role in determining both the strategies and the challenges themselves. For example, some schools have needed to work around the extent to which a MT has been standardized. Findings show that this challenge was faced in both the small and LL contexts but not the Tagalog and LD contexts. For example, in Masbate, meetings aimed at school-level standardization were organized to attain consistency in the teaching of a still highly variable MT. The finding that this challenge is also experienced in the LL areas, where the MT is already standardized to some extent, indicates that the use of MTs in education may require a higher level of standardization than is already present in some of the languages. This was true to some extent of the regional varieties, which are regarded as more standard forms of the languages. In addition, the nature of the MT as one of several other languages in a multilingual setting naturally prompted the use of pedagogic strategies that raised the multilingual and metalinguistic skills of pupils. The development of such skills can encourage multilingual pupils to make connections among the languages they are learning. Among these strategies were the following: judicious

code-switching by pupils and teachers; the use of Filipino as a transition language towards MT use; relating similar content among language subjects; translation for bridging and deepening of explanations; and immediate feedback for the use of academic MT register. Teachers in the Tagalog region also threshed out the overlaps of Filipino and the Tagalog MT to avoid redundant teaching. In all these strategies, the MT has been used or taught in tandem with other languages in the setting. This nature of the MT as a language juxtaposed with other languages has also influenced program strategies. The type of context of an MT, whether LD or homogeneous, naturally influences the provision of strategies for program implementation. Hence, in LD contexts, schools have devised strategies that specially cater to multilingual pupils or settings. Multilingual locations were also likely to have more multilingual teachers who were strategically assigned to selected classes, which employ the languages they speak. Schools capitalized on teachers' multilingual skills to make the program efficient.

Pedagogic strategies were complemented by localization efforts that also related to the MT's nature and status. The use of MT vocabulary and materials that were familiar to pupils made teachers appreciate the MT's nature and its capacity to make lessons more comprehensible to children.

With regard to *Materials*, the number of speakers of a language has determined the feasibility of using locally published resources. For example, the status of Iloko as one of the major languages in the country has given it an advantage in terms of the availability of printed materials that can be used for MTB-MLE. Conversely, teachers of SLs, which have a smaller reading base had to be more creative in sourcing supplementary MT materials. Nevertheless, regardless of the number of speakers, ongoing materials production remains a way of steadily establishing the efficiency and effectiveness of the MT as an accepted language for formal education. As more instructional materials are produced over time, the status of the MT as a language for education is steadily strengthened.

STRATEGIES AND CHALLENGES VIS-À-VIS COMMUNITY INVOLVEMENT AND SUPPORT

The collected data revealed that different strategies related to community involvement and support were employed in different contexts. For example, in the Tagalog context, parents manifested support through donations of money or books. Another source of school-community collaboration was parent involvement in helping children with MT homework. The giving of MT homework to children was more of a regular instructional activity than a deliberate strategy for community engagement. However, in Masbate, this effectively extended the learning and appreciation of the MT and the MTB-MLE program from the school to the parents and, consequently, the community. The process has made learners out of parents and they have given the program their support as they re-learned or re-discovered the MT. In Marinduque, community involvement for the program was also encouraged by holding a general assembly of parents and community members at the start of the school year. Overall, in the schools observed in the study, limited advocacy of the MTB-MLE program seemed to be associated with misunderstandings or lack of clarity among parents about program logistics and issues on linguistic hierarchy and pedagogy. For instance, some parents thought that the program required the use of the MTs as MOI, but they did not expect an MTS as well. In other schools, some school heads and parents had the notion that the use of MT as MOI is for slow learners only.

DISCUSSION

The whole project aims to investigate the strategies and challenges faced by schools at the early stage of MTB-MLE implementation in the Philippines. As the scoping stage for the overall study, Phase 1 sought to provide an overview of the strategies and challenges that are expected to appear on a larger scale in the country. On the whole, the program was found to be in place in the selected public schools in small and LL, Tagalog, and LD contexts. Teachers and parents have reported an improvement in children's comprehension, self-expression, class participation, MT reading, test scores, and self-confidence.

The findings show that strategies and challenges were determined to a great extent by the context, the MT, and community involvement. Moreover, it was evident that identified strategies were mostly brought about by the initiative and resourcefulness of teachers and school heads who dealt with challenges at the school level. As seen in Table 3, it seems that adoption of some strategies, perceived as good practice, can pre-empt some challenges. Analysis of data likewise revealed that strategies and challenges were related to the dimensions of *Language, Instruction, Materials* and *Program* that the literature identifies as important features of MTB-MLE (Malone, 2010). The presence of these program dimensions underscores the importance of a general program framework for MTB-MLE in the Philippines. Nevertheless, elements of variability, such as the language context, the MTs and the community, invite further study and understanding from DepEd and its regional and division offices, so that they can provide the appropriate assistance to schools in various contexts. This is particularly true for the case of Tagalog as an MT, given its close relationship with Filipino, which, along with English, will be the MOI as children move to higher levels of schooling.

Phase 1 data have revealed a number of challenges and a wide range of strategies being employed by teachers and schools. Moreover, almost all identified challenges are addressed by strategies. In six cases, one challenge has been addressed by multiple strategies. The extent to which these strategies are more widely applied will be further explored in Phase 2. At this point, there is a strong indication that the status of the language used as MT and the context in which it is implemented have a significant effect on what happens during implementation – that is, on the nature of the challenges and the types of strategies adopted. Nevertheless, common to all contexts was the issue of perceptions of the general utility of the MT beyond the local community, including a preference for children to be learning Filipino for broader communication within the country and English for communication on technically oriented subjects and more generally on an international level. So the challenges relating to the status of the MT need to be addressed in the implementation of MTB-MLE, as well as explored further in Phases 2 and 3 of this study. This finding specifically informed the design of the Phase 2 instrument, which will investigate the extent to which these challenges are present in a larger number of schools to see if a wider sampling replicates the pattern found in Phase 1. The issue of the perceived status of the MT being lower than national languages means that smaller languages, especially in LD contexts, need more strategies to raise their status. Data from this research reveal that the status and nature of the MT is a significant factor in program implementation. For one thing, implementation is more efficient and less labor-intensive in situations where it is already standardized. Such is the case of the LL, Iloko, which already has a stable orthography. For LLs, which are more likely to manifest some degree of standardization, one prospective inquiry for Phase 2 is the question of whether this level of standardization is sufficient for MTB-MLE.

Also, the Phase 1 comparison of pioneering schools and schools new to MTB-MLE has shown that the length of program implementation can understandably lead to schools producing more strategies as they face more challenges and move forward in implementation. This seems to suggest

a trend where longer program implementation immerses teachers and school heads in the program, leading them to devise more strategies, which include but are not limited to those that address particular challenges. This is a pattern that will be checked on a much larger scale in Phase 2. Similarly, the capability of schools new to MTB-MLE in devising innovative strategies, despite their much shorter implementation period, will also be studied further.

Tagalog is in a unique situation compared to other LLs. This indicates that a clarification of its relationship with Filipino, which is also a distinctive part of the language curriculum of MTB-MLE, is needed. Phase 1 has illustrated how programs that use unstandardized MTs need to innovate to make implementation efficient. In addition to being standardized, an LL is more likely to have available resources such as dictionaries, books, magazines and newspapers that can be used as supplementary references for the MT class. Having a bigger base of speakers gives LLs an edge in terms of utility. In contrast, programs using SLs are challenged by a dearth of supplementary references, and are hence compelled to seek other ways to supplement MT resources. These seem to be challenges that relate to the broad policy and implementation of MTB-MLE across the country.

The history of language use in education in the Philippines has led to a particular language challenge that arises in all languages contexts. This is evident from the Phase 1 data that suggest teachers and students have internalized the use of English for many common classroom interactions (see Table 3), including socialization (*'Good morning children!'*) and management (*'Sit down!'*). The use of code-switching in this way, and the use of English for some subject matter, further illustrate the ways in which the status of the local language, Filipino, and English affect what is happening in the MTB-MLE environment. This is compounded in the case of some languages, or the varieties used in particular communities, that have relatively undeveloped academic and technical registers.

Phase 1 of the study revealed a number of challenges and strategies in relation to MT materials. While a full understanding of these will need to await Phases 2 and 3 of the study, some of these strategies relate to the need for a localized curriculum, which has been identified in the literature as a salient feature of MTB-MLE. Phase 1 data suggest that schools and teachers are making significant localized efforts to provide a solid base of MT teaching and learning materials. This is a significant step towards the design of a localized curriculum.

Phase 1 of the study has identified a wide range of strategies used in instruction, but this phase of the study was limited to the identification of these strategies and did not extend into the evaluation of their effectiveness or impact. Phase 2 extends the study by inviting teachers and school heads to describe innovative or effective strategies and explain why they regard them as effective.

The literature likewise cites code-switching as a natural linguistic phenomenon in bilingual settings and among bilingual people (Montes-Alcala, 2000). The Phase 1 data revealed a wide range of circumstances in which code-switching was used as an instructional strategy in classrooms. Some of these involved the use of Filipino or English when pupils or teachers experienced difficulties of comprehension or were unfamiliar with academic terminology in the MT. This raises a dilemma in the context of MTB-MLE. The rationale for using and teaching the MT in the early years is to use a language familiar to students as a foundation for the development of basic learning and literacy. Yet this part of the data from the study suggest that this is problematic for some languages, as students do not always have this level of understanding in their MT, and ironically, the relatively less familiar languages of Filipino or English are used to assist comprehension. In addition, the term 'mother tongue' can be understood in two ways: as a heritage language – the historical language that is spoken by the parents – or as a dominant language – the strongest language of the child. While in the vast majority of cases these are the same language, it seems that in some contexts

there was some confusion in the schools we investigated, and some students were assigned to a 'mother tongue' class on the basis of the MT being their heritage language or the regional lingua franca, although it was not the language in which they were strongest. On the surface, this appears to be a contradiction of a fundamental principle of MT education. However, it can also be regarded as a pragmatic response, given the current knowledge of students in Filipino or even English, and an application of the principle of building on students' current knowledge and understanding to extend their learning, which is also part of the rationale for MTB-MLE. This dilemma needs to be explored further in Phases 2 and 3 of the study, and may well be an issue worthy of deeper and more extended study in Philippine classrooms. Based on what has been revealed in the Phase 1 data, the question may be whether the use of code-switching undermines and limits the use of the MT in the classroom, or whether it is a transitional strategy which ultimately enables more extensive use of the MT in the classroom. The Phase 2 instrument addresses this issue by inquiring into the use of the MT not only as a language resource but also as a tool for communication that may be used singly or in combination with other languages. The natural language ecology of the Philippines juxtaposes the MTs against a very rich multilingual backdrop, and so the kind of MTB-MLE that the country is developing appears to acquire this character as well.

Challenges and strategies in response to *Program* relate partly to the extent to which schools and teachers saw a need to inform parents and communities, and advocate for, the use of the MT, and partly to issues that arise from the variable demographics of different communities across the country. Some of the Phase 1 schools saw a need to educate parents about MTB-MLE, and some developed explicit strategies to do this. Others did this more inadvertently, when the setting of homework in the MT had the effect of bringing parents into the school to see how their language could be used in the classroom. There were program challenges and strategies that related to the questions of how to select appropriate MTs for multilingual communities and how to cater for minority groups of children who were not able to be placed in a MT class for their own MT. The Phase 2 tool explores this dimension further by allotting a particular section to the other roles that the community may be playing in the MTB-MLE. In this way, community participation that may not be as apparent in Phase 1 can be brought to light in Phase 2 and studied further for Phase 3.

Pupil writing in the MT (Iloko) in the Large language context school

CONCLUSION

The first phase of the project has made a start in identifying challenges and strategies in a small but purposeful sample of schools. The data obtained so far are limited to identification of challenges and strategies. Phase 1 has not explored the efficacy or impact of different strategies or their precise relationship to particular challenges. First, it is necessary to explore the extent to which the challenges and strategies are seen on a wider scale across the country, while recognizing that a wider sampling may also reveal more challenges and strategies. This will be the focus of Phase 2 of the study. In Phase 3, strategies and their efficacy will be further explored.

Phase 1 of the study has found similarities between issues identified in the literature on MT education and what is happening in the schools in the early stages of the implementation of MTB-MLE by DepEd. This phase of the study has confirmed the usefulness of using the dimensions of *Language, Instruction, Materials* and *Program* as organizing dimensions for the investigation of MTB-MLE, although there are ways in which data can overlap across these dimensions. Data have also confirmed some strategies and challenges that the Philippines shares with other MTB-MLE-implementing countries. Still, some potential distinctions have been identified in the case of the Philippines, and these will be explored and, if appropriate, established in the later phases of the study. Phase 1 has identified challenges and strategies to use in the design of instruments for the more extensive survey of Phase 2. It has also identified dilemmas and issues worthy of deeper investigation in Phase 3 of this study, and possibly beyond.

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APPENDIX 1: SAMPLES OF NVIVO CODING AND ANALYSIS

Table A1. 1 List of nodes, node descriptions and number of references coded for each node.

NODES	DESCRIPTION OF NODES	REFERENCES (N)
LANGUAGE		
Large Language	Includes MTs with more than 2 million speakers covered in Phase 1	1530
Small Language	Includes MTs with fewer than 2 million speakers covered in Phase 1	199
Linguistic context	The linguistic environment (community, school and classroom) and issues related to linguistic context	145
Linguistically Diverse Context	Schools and communities in which a number of MTs are spoken	307
INSTRUCTION		
Code-switching	Code-switching instances initiated by teachers and students during classroom observation	406
Linguistic Activity	Describes the kind of linguistic activity (e.g. dialogue, directive, drill, free communication, spelling and translation) produced by the teacher or student/s	575
Skills Focus	Language and literacy skills (e.g. reading, speaking, listening, writing, drawing and computing) that is the focus of lesson activity	383
Topic of Classroom Activity	Content of classroom discussion or activity as observed during the classroom observation (e.g. classroom management, metalanguage, socializing and subject content)	274
MATERIALS		
Classroom Linguistic Environment	Print environment in the classroom that includes: class, school, and Philippine information; instructions and reminders; alphabets and vocabulary lists; maps; and slogans	496
Lesson Materials Type	Instructional materials (e.g. books, pre-prepared charts, realia) found and used by the teacher in MT teaching	373
PROGRAM		
Attitude Towards MT	Positive, neutral or negative evaluation of the MT and/or MTB-MLE implementation by parents, teachers and students	548
Challenges	Problems encountered in the implementation of the program	490
Effects of MTB-MLE	Perceived effects of MTB-MLE implementation on study participants and students	414
Implementation	Issues or concerns about MTB-MLE implementation	473
Recommendations	Recommendations of study participants on MTB-MLE implementation	69
Strategies	Teaching strategies identified by study participants that proved to be helpful in MT teaching	363
Training	Any reference to the training/s attended by study participants	115

Figure A1.2: Sample of classroom linguistic environment and interview data coded at the node *implementation*

Q: Yung mga books niyo po ba for kinder, in Ilocano po lahat?
A: Hindi naman po lahat meron ding Tagalog, meron ding English. [Yung sa MT class] dalawa, Ilocano at Filipino. Yung ginagamit ng Tagalog speakers ay Filipino.

Implementation

Figure A1.3. A sample of a section of referenced coded at the node *implementation*

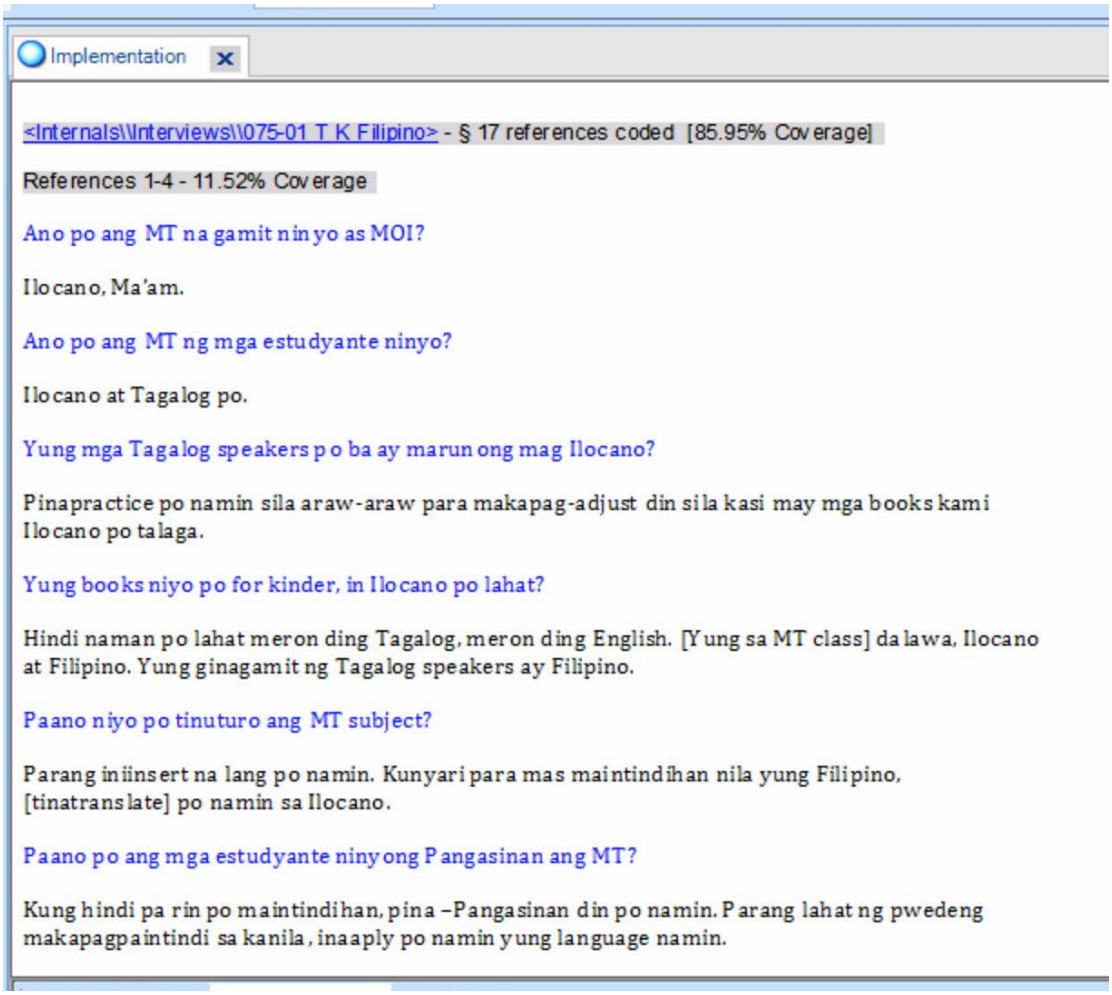

Table A1.4: Verbatim comments of study participants and the nodes they are coded at (Translations in *italics*)

VERBATIM RECORDS	NODES
LANGUAGE	
Siyempre mother tongue kasi, so Ilocano. Kunwari 'yong teacher nagtanong, kung minsan ang mga bata Tagalog eh. Bakit 'ka niyo. Siyempre 'pag pinanganak 'yong bata, language ng bata pagkapanganak pa lang Tagalog na 'yan. Di ba tinuturuan natin ang mga anak ng Tagalog kasi nga 'pag Ilocano parang nahuhuli 'yang anak mo. Heto ngayon pumasok ang mother tongue, parang may changes talaga. Sa community, ang unang tinuturo nila sa mga bata, Tagalog talaga; may Ilocano din, 'yong mga mahirap ang buhay talagang Ilocano pero may mga mahirap din ang buhay na pinipilit na mag Tagalog ang anak. *Because it's mother tongue, therefore, Ilocano. Sometimes, children use Tagalog when they are being asked by teachers. This is because children are born in that language. We are teaching children in Tagalog because they may lag behind if taught in Ilocano. But changes really seem to happen now that the mother tongue (program) is being implemented. Children are being taught first in Tagalog in the community. Others are being taught in Ilocano like those who are poor, but there are also some who are hard up but still force their children to learn Tagalog.*	- Implementation - Challenges - Linguistic context
INSTRUCTION	
Ti pinagsursuro mi diay anak kon, nu "Lima," kunam, lima (demo). "Inikkat mo ti duwa," inikkat mo (demo). "Mano nabati?" Daydiay, nadaras da nga pick-up-en. Demonstration. Ngem nu tay ibagbagam, uray dakami nga "Six divided by two." Inya ti Ilocano ti 'divided by'? Diak pay ammo? Bingbingayem. Uray nu ibagam daydiay, di da maawatan, nu di mo man i-demonstraten. *We teach our child through demonstration. We say, "lima" (five) then demo, "inikkat mo ti duwa" (remove two), demo then we ask, "how many is left?" It's easier for them to grasp if it's demonstrated. Even for us, we do not know the Ilocano word for 'divided by', "bingbingayen". Even if we use the term, they will not understand unless you demonstrate.*	- Strategies
MATERIALS	
We encouraged them to be creative in a way that they should prepare, make and reproduce big books. But considering their probably lack of knowledge, we guided them on how to prepare. The big books should pass the Division Office review before the production of the final copy. Of course in the review, it should pass through class observation of school heads, principals, district supervisors, and with the education program supervisors). If we find out they are effective, we give suggestions as to how it will be re-crafted before production of its final copy.	- Implementation - Strategies - Lesson Materials

VERBATIM RECORDS	NODES
PROGRAM	
Kung may Pangasinan, siyempre dapat turuan mo 'yon na mag mother tongue kasi nandoon 'yon sa program. Hindi pwede na itolerate mo na hindi siya matuto ng Ilocano. So kailangan si teacher alam niya 'yan. Na kung may Pangasinan o Tagalog na estudyante, kaya nga may mother tongue eh, dapat ituro mo sa kanya ang Ilocano na dialect dito sa lugar na ito. *If you have a Pangasinan in class, you have to teach him the mother tongue because he's under that program. You should not tolerate him not learning Ilocano. The teacher should know if a Pangasinan or Tagalog is in class. Because the program is MT, you should teach him Ilocano because that is the dialect here.*	- Implementation - Challenges

Table A1.5: Parent nodes and their corresponding child nodes, descriptions, and references

NODES	DESCRIPTION OF NODES	REFERENCES (N)
LANGUAGE		
LARGE LANGUAGE Bikol English Filipino Iloko Tagalog	Includes mother tongues with more than 2 million speakers covered in Phase 1	1530
SMALL LANGUAGE Minasbate Pangasinan	Includes mother tongues with fewer than 2 million speakers covered in Phase 1	199
LINGUISTIC CONTEXT	The linguistic environment (community, school and classroom) and issues related to linguistic context	145
LINGUISTICALLY DIVERSE CONTEXT	Schools in which a number of mother tongues are spoken	307
INSTRUCTION/MATERIALS		
ASSESSMENT	Includes summative and formative forms of assessment	31
CLASSROOM LINGUISTIC ENVIRONMENT	Print environment in the classrooms	496
Class Information	Includes information on students such as profile, attendance, performance, class and PTA officers	
Date and Time	Days of the week, months of the year, details of today's date, times of the day	
Instructions and Reminders	Includes reminders such as speak clearly	
Labelling	Labels of rooms, parts of the room, objects in the room	
Language information	Information on the languages used in the classroom	
Alphabets	List of the letters and examples of words that use different letters	
Language and Communication	Includes language macro-skills, reading and communication guidelines	
Vocabulary List	Word list on a particular topic such as shapes, colors, parts of the body, skills etc. Can also include phrases and sentences that enrich vocabulary knowledge.	
Learning Content	Includes topics tackled in a particular subject area. Usually includes those posted in the bulletin boards specific for a subject area.	

NODES	DESCRIPTION OF NODES	REFERENCES (N)
Maps	National and provincial maps	
Numeracy	Numbers and number words, operations, math tables	
Philippine Information	Any national, provincial, cultural information about the Philippines	
Religious exhortation and prayers	Includes prayers and religious messages	
School information	Includes the mission, vision and profile of the school; school governance and connection to local officials and DepEd officials	
Slogan	Includes quotes, sayings	
CODE-SWITCHING Initiated by child Initiated by teacher	Code-switching instances initiated by teachers and students during classroom observation	406
LESSON MATERIALS TYPE Audio-visual Big books Manuals Pre-prepared charts Realia Small books Stick puppets Textbooks	Instructional materials (e.g. books, pre-prepared charts, realia) found and used by the teacher in MT teaching	373
LESSON MATERIALS SOURCE DepEd provided Other publishers Teacher-made	Source of lesson materials used in MT teaching	139
LINGUISTIC ACTIVITY Dialogue Directive Drill Free Communication Lecture Repetition Spelling Translation	Describes the kind of linguistic activity produced by the teacher or student/s	575

NODES	DESCRIPTION OF NODES	REFERENCES (N)
SKILLS FOCUS Computation Drawing Listening Reading Speaking Writing	Language and literacy skills that is the focus of lesson activity	383
TECHNOLOGY	Technology used by the teachers in MT teaching	34
TOPIC OF CLASSROOM ACTIVITY Classroom Management Metalanguage Socializing Subject Content	Content of classroom discussion or activity as observed during the classroom observation	274
PROGRAM		
ATTITUDE TOWARDS MT Negative Neutral Positive	Positive, neutral or negative evaluation of the mother tongue and/or MTB-MLE implementation by the parents, teachers and students	548
EFFECTS OF MTB-MLE	Perceived effects of MTB-MLE implementation on study participants and students	414
Achievement	Includes things done successfully by students with effort or skill	28
Challenges	Problems encountered in the implementation of the program	490
GRADE LEVEL Grade 1 Grade 2 Grade 3 Kindergarten	Grade levels of classes observed	1012
IMPLEMENTATION	Issues or concerns about MTB-MLE implementation	473
RECOMMENDATION	Recommendations of study participants on MTB-MLE implementation	69
SCHOOLS	The schools visited in the study	959
Pioneering	Schools that have implemented MTB-MLE for 2 or more years	
Schools New to MTB-MLE	Schools implementing MTB-MLE from SY 2012-2013 onwards	

NODES	DESCRIPTION OF NODES	REFERENCES (N)
SCHOOL LINGUISTIC ENVIRONMENT	Print environment in the school premises	115
Instructions and Directions	Also includes reminders	
Labelling	Labels of rooms and parts of the school	
Learning Content	Includes topics tackled in a particular subject area	
School information	Includes the mission, vision and profile of the school; school governance and connection to local officials and DepEd officials	
Slogan	Includes quotes, sayings, motto, tagline within the school premises	
STRATEGIES Translation	Teaching strategies identified by study participants that proved to be helpful in MT teaching	363
SUBJECT AREAS Filipino Math Mother Tongue Science	Those that pertain to the subjects or topics covered in the classroom observations	449
TRAINING	Any reference to the training/s attended by study participants	115

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