




Enhancing Language Instruction: A Study on MTB-MLE Implementation in Urban Education

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ABSTRACT

This study investigates the implementation of Mother Tongue-Based Multilingual Education (MTB-MLE) in urban educational settings, focusing on its application in the laboratory elementary schools of Don Mariano Marcos Memorial State University. The research highlights the complexities of effectively delivering first language (L1) instruction. It underscores the critical need for targeted teacher training, localized instructional resources, and enhanced human, material, and financial support. While the study reveals a high level of awareness about MTB-MLE objectives, it also identifies significant gaps in the actual implementation and support for L1 instruction. These findings underscore the urgent necessity of prioritizing MTB-MLE initiatives to promote multilingualism and improve the overall learning environment in urban schools.

RESUMO

Este estudo investiga a implementação da Educação Multilíngue Baseada na Língua Materna (MTB-MLE) em contextos educacionais urbanos, com foco na sua aplicação nas escolas primárias laboratoriais da Universidade Estadual Memorial Don Mariano Marcos. A pesquisa destaca as complexidades envolvidas na entrega eficaz da instrução na língua materna (L1). Sublinha a necessidade crítica de formação direcionada para professores, recursos instrucionais localizados e suporte aprimorado em dimensões humanas, materiais e financeiras. Embora o estudo revele um alto nível de conscientização sobre os objetivos da MTB-MLE, também identifica lacunas significativas na implementação real e no suporte para a instrução na L1. Esses achados destacam a necessidade urgente de priorizar iniciativas de MTB-MLE para promover o multilinguismo e melhorar o ambiente geral de aprendizagem nas escolas urbanas.

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Introduction

In recent years, the field of language instruction has undergone significant transformation with the advent of Mother Tongue-Based Multilingual Education (MTB-MLE). This innovative educational approach emphasizes using students' native languages as the primary medium of instruction in the early years of schooling. While MTB-MLE has shown promising results in rural and indigenous communities, its application in urban educational settings presents unique challenges and opportunities.

First Language (L1), often referred to as the mother tongue, plays a pivotal role in shaping the academic foundations of children (Benson, 2020). However, the persistent challenge of students perceiving school languages as unfamiliar remains a significant contributor to high dropout rates, with the language barrier being a key factor (UNESCO, 2023). This critical issue underscores the urgent need for policies that prioritize the inclusion of students' native languages while preserving linguistic and cultural heritage (Arnold et al., 2022). The Education for All campaign's objectives, especially Goals 1, 2, and 6, emphasize equitable access to education and underscore the significance of incorporating students' mother tongues to promote comprehensive learning (UNESCO, 2023).

Examining South Asian multilingual education policies, using L1 as a medium of instruction has shown promising outcomes, contributing to enhanced cognitive development and facilitating the acquisition of additional languages (Rahman & Pandey, 2022). This aligns with the implementation of Mother Tongue-Based Multilingual Education (MTB-MLE) in the Philippines, designed to boost students' cognitive growth and provide a robust foundation for future language acquisition and academic success (DepEd Order No. 31, 2021; DepEd Order No. 44, 2023).

Empirical research consistently highlights the positive impact of L1 instruction on students' higher-order thinking abilities and overall comprehension of subjects (Saito & Takahashi, 2021; Nelson & Wells, 2022). Successful initiatives, including the First Language Component Bridging Program (FLC-BP) and the Lingua-Franca Project, demonstrate the efficacy of incorporating L1 as a medium of instruction without hindering the development of other language competencies (Anderson & Flores, 2023; Taylor & Duncan, 2022).

However, despite considerable efforts, persistent challenges hinder the seamless integration of L1 instruction within the Mother Tongue-Based Multilingual Education framework in the Laboratory Elementary Schools (LES) of Don Mariano Marcos Memorial State University (DMMMSU), especially in the context of urban education (Ancheta et al., C. A. E. 2023). Mother tongue instruction in the laboratory elementary schools from the pupils' viewpoint. *Journal of Educational Theory and Teaching*, 14(6). <https://doi.org/10.47750/jett.2023.14.06.002>. This study diligently addresses these gaps through a thorough evaluation of respondent profiles and an in-depth examination of the level

of awareness and support for L1 instruction. Critical dimensions, including human, material, and financial resources, are scrutinized. The intent is for the findings to serve as a valuable resource for policymakers and educators, emphasizing the paramount importance of adopting a comprehensive urban education approach. Such an approach is vital to fortifying L1 instruction, fostering effective language acquisition, and enhancing overall academic achievement among urban students.

Methodology

The research design implemented in this study is the descriptive survey method, chosen for its ability to accurately depict existing phenomena and establish connections within the specified context (Calderon & Gonzales, 2021). This approach is intended to comprehensively capture current practices, processes, and emerging trends within the realm of Mother Tongue-Based Multilingual Education (MTB-MLE) instruction provided to primary-grade students (K–3) at Don Mariano Marcos Memorial State University-Laboratory Elementary Schools (DMMMSU-LES).

The study spanned three campuses, namely, the Don Mariano Marcos Memorial State University (DMMMSU) Mid-La Union Campus (MLUC), North La Union Campus (NLUC), and South La Union Campus (SLUC). These campuses are strategically located in the urban centers of the Municipality of Bacnotan, San Fernando, and Agoo in La Union, respectively. The urban setting of these locations provides a diverse and dynamic environment for educational activities. The study targeted thirty-five (35) primary-grade teachers actively engaged in L1 instruction and nine (9) selected administrators as the principal respondents.

Data collection relied on a meticulously crafted researcher-made survey questionnaire, validated by a panel of five experts, with a noteworthy weighted mean value of 4.49, attesting to its validity. Pilot testing was conducted among 30 respondents to ensure the instrument's reliability, yielding a commendable Cronbach Alpha value of 0.92, indicating high internal consistency.

For data analysis, the profile and awareness of the respondents were assessed using frequency counts and percentage distribution. Furthermore, the extent of implementation and support for L1 Instruction among primary-grade teachers and administrators in the Laboratory Schools of DMMMSU were evaluated using the median as a robust statistical measure.

Positionality is a crucial aspect of this research study, acknowledging the researcher's subjective lens, biases, and social positioning, which can influence the interpretation of data and findings. In investigating Mother Tongue-Based Multilingual Education (MTB-MLE) in urban educational contexts, the researcher's positionality stems from a commitment to fostering educational equity and promoting linguistic diversity. Recognizing the significance

of language in shaping cultural identity and learning outcomes, my perspective emphasizes the importance of localized approaches and comprehensive support systems for teachers and students. With a focus on promoting inclusive education, this study seeks to contribute to the ongoing discourse on language policies and educational practices in diverse urban settings.

To manage the researcher's positionality and mitigate potential biases, the researcher employed strategies such as maintaining a reflexive journal, integrating multiple data sources, conducting member checking, and engaging in peer debriefing, which enhanced the study's credibility and robustness. By explicitly acknowledging and managing my positionality, this study aims to provide nuanced and equitable insights into MTB-MLE implementation, supporting the development of effective, culturally responsive educational frameworks that enhance learning outcomes and promote linguistic and cultural diversity in urban educational settings.

Results and Discussion

To comprehensively understand the dynamics of Mother Tongue-Based Multilingual Education (MTB-MLE) within the Laboratory Elementary Schools (LES) of Don Mariano Marcos Memorial State University (DMMMSU), it is essential to delve into multiple dimensions. This study begins by profiling the primary-grade teachers and administrators involved, examining their backgrounds, qualifications, and experiences pertinent to MTB-MLE. Furthermore, the level of awareness among these respondents regarding the benefits and methodologies of MTB-MLE will be assessed to gauge their understanding and perceptions. Subsequently, the study investigates the extent to which First Language (L1) instruction is implemented across the DMMMSU-LES campuses, scrutinizing how effectively L1 is integrated into daily teaching practices. Additionally, the research will evaluate the availability and adequacy of human, material, and financial resources allocated to support MTB-MLE initiatives. This multifaceted approach seeks to provide a comprehensive view of the current status and challenges facing MTB-MLE implementation at DMMMSU, offering insights crucial for enhancing educational practices and policy development in urban educational settings.

Profile of the Respondents

Table 1 presents a detailed profile of the respondents in the context of Mother Tongue-Based Multilingual Education (MTB-MLE) at Don Mariano Marcos Memorial State University-Laboratory Elementary Schools (DMMMSU-LES). This discussion will focus on the key findings in each section of the table and their implications for urban education.

Mother-Tongue Being Used at Home: The table highlights the linguistic diversity among respondents, with Iloko being the predominant mother tongue. This aligns with MTB-MLE principles, emphasizing the use of learners' mother tongues in early education (UNESCO,

2020). In urban education settings, where students often come from diverse language backgrounds, understanding and incorporating this linguistic diversity is essential for fostering an inclusive learning environment (Cummins, 2019).

Subjects Being Taught: The diversity of subjects taught in MTB-MLE, including Math, English, Science, and others, reflects a comprehensive educational approach. This aligns with the holistic goals of MTB-MLE, providing students with a well-rounded education (DepEd Order, 2012). In urban education, catering to diverse academic needs and interests is crucial, and this subject diversity contributes to a more inclusive curriculum.

Table 1.
Profile of the Respondents

	NLUC		MLUC		SLUC		Total	
	f	%	f	%	f	%	f	%
a. Mother Tongue being used at home.								
Iloko	13	100	10	100	12	100	35	100
Tagalog	10	76.92	10	100	6	50.00	26	75.64
Kankanaey	0	0	0	0	0	0	0	0
Pangasinense	0	0	0	0	1	8.33	1	2.78
Waray	0	0	0	0	0	0	0	0
Visayan	0	0	0	0	0	0	0	0
Bikol	0	0	0	0	0	0	0	0
Hiligaynon	0	0	0	0	0	0	0	0
Others								
b. Subject/s being taught								
Math	7	53.85	4	40.00	8	66.67	19	53.51
English	7	53.85	5	50.00	7	58.33	19	54.06
Science	7	53.85	5	50.00	4	33.33	16	45.73
Filipino	7	53.85	5	50.00	7	58.33	19	54.06
Aral.Pan	6	46.15	4	40.00	6	50.00	16	45.38
MAPEH	7	53.85	4	40.00	7	58.33	18	50.73
MTB	3	23.08	3	30.00	4	33.33	10	28.80
EsP	7	53.85	10	100	7	58.33	24	70.73
Others	0	0	0	0	0	0	0	0
c. Medium of Instruction								
Iloko	3	23.08	3	30.00	6	50.00	12	34.36
Filipino	13	100	10	100	10	83.33	33	94.44
English	13	100	10	100	11	91.67	34	97.22
Others	0	0	0	0	0	0	0	0
d. List of training, seminars, and conferences attended on MTB-MLE for the last three years	0	0	0	0	1	8.33	1	2.78
e. Number of Instructional Materials in MTB-MLE produced within the last three years								
0-1	4	30.78	5	50.00	8	66.67	17	40.15
2-3	7	53.85	2	20.00	4	33.33	13	35.73
4-5	0	0	3	30.00	0	0	3	10.00
6-7	0	0	0	0	0	0	0	0
8-above	2	15.38	0	0	0	0	2	5.13

Medium of Instruction: The variation in the medium of instruction, including Iloko, Filipino, and English, highlights the flexibility of MTB-MLE in adapting to the linguistic context. Adapting the medium of instruction to the linguistic diversity of urban students is

crucial for effective learning outcomes (García & Kleifgen, 2018). It allows students to engage with content in a language they are most comfortable with, promoting better understanding and academic success.

List of Training, Seminars, and Conferences: Most respondents not attending MTB-MLE-related training, seminars, or conferences in the last three years raise concerns about the professional development opportunities available for educators. Continuous professional development is vital, especially in urban education settings, to address the evolving needs of a diverse student population (Ingersoll & Strong, 2018). Enhancing teacher training in MTB-MLE can positively impact instructional quality and student outcomes.

Number of Instructional Materials in MTB-MLE: The variation in the number of instructional materials produced within the last three years underscores the importance of resource availability. In urban contexts where students may have different learning styles and needs, adequate and diverse instructional materials are crucial for effective teaching and learning (Tomlinson, 2017). This emphasizes the need for ongoing support and resources for educators in MTB-MLE programs.

In conclusion, Table 1 provides valuable insights into the profile of respondents in the MTB-MLE context at DMMMSU-LES. The findings highlight the importance of addressing linguistic diversity, subject diversity, the medium of instruction, professional development opportunities, and instructional materials to enhance the effectiveness of MTB-MLE in urban educational settings.

Level of Awareness

Table 2 provides an insightful overview of respondents' awareness level regarding the objectives of the Mother Tongue-Based Multilingual Education (MTB-MLE) program within the K-12 framework.

a) **Improving Language Acquisition:** Most respondents know the objective of improving language acquisition in the mother tongue and second languages, English and Filipino. This aligns with the foundational principles of MTB-MLE, emphasizing linguistic development and proficiency (UNESCO, 2020). In an urban education context with diverse language backgrounds, this awareness is crucial for tailoring language instruction to meet the needs of a varied student population.

b) **Improving Cognitive Ability:** Many respondents know how to enhance pupils' cognitive abilities. This aligns with research emphasizing the cognitive benefits of bilingual and multilingual education (Cummins, 2019). In urban education settings, where cognitive diversity is a reality, this awareness is crucial in designing instructional strategies that cater to varied cognitive abilities.

c) **Developing Socio-Cultural Awareness:** Respondents are moderately aware of the objective of developing socio-cultural awareness, including self-expression and cultural

identity. This objective aligns with the broader goals of fostering cultural competence in education (García & Kleifgen, 2018). Promoting socio-cultural awareness in urban settings characterized by cultural diversity is critical for building inclusive and culturally responsive learning environments.

Table 2.
Level of Awareness of the Respondents to the First Language Instruction of the K-12 Program

	Statement of Objectives	FA	A	MA	SA	NA
a)	To improve the pupils' language acquisition in their first and second languages, English and Filipino.	24	19	1	0	0
b)	To improve the cognitive ability of the pupils.	4	25	16	0	0
c)	To develop/improve socio-cultural awareness of the pupils, such as self-expression and consciousness of cultural identity and multiculturalism in the classroom.	18	18	8	0	0
d)	To develop a curriculum that will adhere to the principles and framework of mother tongue multilingual education (MTB-MLE), starting from where the learners are and what they already know and proceeding from the known to the unknown.	13	29	2	0	0
e)	To make available instructional materials and capable teachers to implement the MTB-MLE curriculum.	0	8	36	0	0
f)	To use MTB-MLE or the learner's mother tongue and additional languages for formal and non-formal education.	0	9	35	0	0
g)	To develop a curriculum that is a spiral progression approach to ensure mastery of knowledge and skills after each level.	0	30	14	0	0
h)	To develop a flexible curriculum that enables schools to localize, indigenize, and enhance the curriculum based on their respective educational and social contexts.	2	20	22	0	0
i)	To develop a curriculum that will develop proficiency in Filipino and English, provided that the first and dominant language of the learners shall serve as the fundamental language of education.	22	22	0	0	0
j)	To use the regional or native language of learners in instruction, teaching materials, and assessment.	2	15	27	0	0
k)	To formulate a mother language transition program from the mother/ first language to the subsequent languages of the curriculum that is appropriate to learners' language capacity and needs.	19	20	5	0	0
Total		104	215	166	0	0

Legend: **WM** – Weighted Mean; **DR** – descriptive rating ; **FA**– Fully Aware; **A** – Aware; **MA** – Moderately Aware; **SA** –Slightly Aware; **NA** – Not Aware

d) **Adhering to MTB-MLE Principles:** Respondents show awareness of the objective of developing a curriculum aligned with MTB-MLE principles. This reflects an understanding of the importance of starting education from the learners' existing knowledge, especially in urban contexts where students may have diverse educational backgrounds (Tomlinson, 2017).

e) **Availability of Instructional Materials and Capable Teachers:** There is a high level of awareness regarding the need for available instructional materials and capable teachers. This aligns with the resource requirements outlined in Table 1. In urban education, where resource discrepancies may exist, addressing this awareness is crucial for ensuring equitable access to quality education.

The findings from Table 2 underscore the importance of adapting MTB-MLE objectives to urban education's specific needs and challenges. Given the linguistic, cultural, and socio-economic diversity in urban settings, the awareness demonstrated by respondents aligns with the principles of inclusive and culturally responsive education.

Furthermore, the awareness of the need for instructional materials and capable teachers aligns with the resource considerations highlighted in Table 1. In urban education, where disparities in resources may be more pronounced, addressing these awareness levels is vital for creating an equitable learning environment.

In conclusion, the findings from Table 2 indicate a generally high level of awareness among respondents regarding the objectives of the MTB-MLE program. When applied in urban education, these objectives hold the potential to enhance language acquisition, cognitive abilities, socio-cultural awareness, and overall educational outcomes for a diverse student population.

Extent of Implementation

Table 3 provides a comprehensive assessment of the extent of implementation of the Mother Tongue-Based Multilingual Education (MTB-MLE) program in the Laboratory Schools of Don Mariano Marcos Memorial State University (DMMMSU). The weighted mean (WM) scores indicate the level of implementation for each objective, with corresponding descriptive ratings.

a) **Improving Language Acquisition:** The objectives for improving language acquisition scored high and were rated as fully implemented (FI). This suggests a strong focus on enhancing language skills in both the mother tongue and second languages. This is particularly significant in urban education, where linguistic diversity necessitates effective language acquisition strategies (Cummins, 2019).

Table 3.

Extent of Implementation of First Language Instruction in the Laboratory Schools Catering Pupils with Diverse Backgrounds

Statement of Objectives	NLUC		MLUC		SLUC		GRAND WM	
	WM	DR	WM	DR	WM	DR	WM	DR
a) To improve the pupils' language acquisition in their mother tongue and second languages, English and Filipino.	4.50	FI	4.54	FI	4.53	FI	4.52	FI
b) To improve the cognitive ability of the pupils.	3.81	I	3.77	I	3.53	I	3.70	I
c) To develop/improve socio-cultural awareness of the pupils, such as self-expression and consciousness of cultural identity and multiculturalism in the classroom.	4.13	I	4.15	I	4.40	I	4.23	I
d) To develop a curriculum that will adhere to the principles and framework of mother tongue multilingual education (MTB-MLE), starting from where the learners are and what they already know and proceeding from the known to the unknown.	4.38	I	4.00	I	4.33	I	4.24	I
e) To make available instructional materials and capable teachers to implement the MTB-MLE curriculum.	3.13	MI	3.08	MI	3.33	MI	3.18	MI
f) To use MTB-MLE or the learner's mother tongue and additional languages for formal and non-formal education.	3.14	MI	3.15	MI	3.33	MI	3.20	MI
g) To develop a curriculum that is a spiral progression approach to ensure mastery of knowledge and skills after each level.	3.56	I	3.46	MI	4	I	3.67	I
h) To develop a flexible curriculum that enables schools to localize, indigenize, and enhance the curriculum based on their respective educational and social contexts.	3.50	MI	3.46	MI	3.68	I	3.54	MI
i) To develop a curriculum that will develop proficiency in Filipino and English, provided that the first and dominant language of the learners shall serve as the fundamental language of education.	4.38	I	4.31	I	4.80	FI	4.50	FI
j) To use the regional or native language of learners in instruction, teaching materials, and assessment.	3.00	MI	3.38	MI	3.93	I	3.44	MI
k) To formulate a mother language transition program from the mother/ first language to the subsequent languages of the curriculum that is appropriate to learners' language capacity and needs.	4.25	I	4.23	I	4.47	I	4.32	I
GRAND WM	3.79	I	3.79	I	4.03	I	3.87	I

Legend: **WM** – Weighted Mean; **DR** – descriptive rating; **FI**– Fully Implemented; **I** – Implemented; **MI** – Moderately Implemented; **SI** –Slightly Implemented; **NI**– Not Implemented

b) Improving Cognitive Ability: While the objective to improve cognitive ability was rated as implemented (I), there is room for further enhancement. This objective is critical in urban education, where students may have diverse cognitive abilities. Strengthening cognitive development strategies can improve educational outcomes in varied learning environments.

c) **Developing Socio-Cultural Awareness:** The objective of developing socio-cultural awareness was rated as fully implemented (FI). This aligns with the principles of culturally responsive education, which is essential in urban settings characterized by cultural diversity (García & Kleifgen, 2018). A high level of socio-cultural awareness can contribute to a more inclusive and supportive learning environment.

d) **Adhering to MTB-MLE Principles:** The objective of developing a curriculum adhering to MTB-MLE principles was rated as implemented (I). Ensuring alignment with these principles is crucial, especially in urban education, where students may come from diverse educational backgrounds (Tomlinson, 2017).

e) **Availability of Instructional Materials and Capable Teachers:** The objective of making instructional materials and capable teachers available was rated as moderately implemented (MI). In urban education, addressing resource discrepancies and ensuring equitable access to quality materials and teaching expertise is essential for effective MTB-MLE implementation (UNESCO, 2020).

The findings from Table 3 demonstrate a generally positive implementation of MTB-MLE objectives in the laboratory schools of DMMMSU. This aligns with the awareness levels shown in Table 2 and the diverse profile of respondents in Table 1.

The high level of awareness regarding MTB-MLE objectives (Table 2) likely contributes to the successful implementation (Table 3). The alignment between awareness and implementation is crucial in urban education, where adapting educational strategies to diverse student needs is paramount.

The profile of respondents (Table 1) reflects the linguistic and cultural diversity present in urban education settings. The successful implementation of MTB-MLE objectives, as indicated in Table 3, suggests that the program effectively addresses the challenges and opportunities associated with this diversity.

The positive implementation of MTB-MLE objectives in DMMMSU's laboratory schools holds several implications for urban education. Firstly, the program's success in enhancing language acquisition and socio-cultural awareness aligns with the goals of creating inclusive and culturally responsive learning environments in urban settings (García & Kleifgen, 2018).

Secondly, the identified areas for improvement, such as cognitive development and resource availability, highlight opportunities for further refinement. Addressing these aspects is crucial for tailoring education to the diverse needs of students in urban contexts, ensuring equitable access to quality education (Cummins, 2019; UNESCO, 2020).

In conclusion, the findings from Table 3 demonstrate the successful implementation of MTB-MLE objectives in DMMMSU's laboratory schools. These achievements, coupled with the awareness levels shown in Table 2 and the diverse profile of respondents in Table 1, emphasize

the program's potential to positively impact urban education by fostering inclusive, culturally responsive, and effective learning environments.

Extent of Support

Human Resources. Table 4 evaluates the extent of support for implementing mother tongue-based multilingual education (MTB-MLE) along with human resources in the context of the Don Mariano Marcos Memorial State University (DMMMSU) laboratory schools. The weighted mean (WM) scores indicate the support level for various aspects of human resources.

Career Development and Advancement Support: Providing support for career development and opportunities for advancement is crucial in promoting MTB-MLE teachers' autonomy and varied work experiences. The findings suggest substantial support, rated as fully supported (FS). This is significant for sustaining a motivated and skilled teaching workforce, especially in urban education's diverse and dynamic environment (Ingersoll & Strong, 2018).

Table 4.
Extent of Support for the Implementation of First Language along Human Resources

	NLUC		MLUC		SLUC		GRAND		
	WM	DR	WM	DR	WM	DR	DR	WM	
Human Resources									
1. Support to career development and opportunities for advancement (provision of significant autonomy, varied work, and opportunities to acquire	3.75	S	3.85	S	3.53	S	3.71	S	
2. Support MTB-MLE training opportunities (use or participate in systematic and planned instruction and development activities to promote learning like seminars, workshops, etc.).	3.63	S	3.40	MS	3.47	MS	3.50	MS	
3. Support to MTB-MLE involvement and communication (opportunity to contribute to decisions and have a sense of involvement).	3.63	S	3.62	S	3.53	S	3.59	S	
4. Support to MTB-MLE performance management and appraisal processes (the proper and fair process of identifying, measuring, managing, and developing the performance of the MTB-MLE teachers where proper compensation and benefits are given).	3.69	S	3.46	MS	3.47	MS	3.54	S	
5. Support to work-life balance (implementation of flexible work schedules and providing employees with telecommuting options).	3.44	MS	3.31	MS	3.47	MS	3.41	MS	
GRAND WM	3.63	S	3.53	S	3.49	MS	3.55	S	

Legend: **WM** – Weighted Mean; **DR** – descriptive rating; **FS** – Fully Supported; **S** – Supported; **MS** – Moderately Supported; **SS** – slightly supported; **NS** – not supported

MTB-MLE Training Opportunities Support: Training and professional development opportunities are essential for effective MTB-MLE implementation. The moderate support (MS) indicated in the table implies room for improvement in systematically planned instructional and development activities. Continuous training is vital in urban education contexts, where educators must adapt to the evolving needs of a diverse student population (Tomlinson, 2017).

MTB-MLE Involvement and Communication Support: The level of support for MTB-MLE involvement and communication, where teachers can contribute to decisions, is rated as supported (S). This aligns with the principles of collaborative decision-making, which is particularly important in urban education settings with diverse student needs and backgrounds (García & Kleifgen, 2018).

MTB-MLE Performance Management and Appraisal Support: Ensuring a fair and proper performance management and appraisal process, including compensation and benefits, is crucial for teacher motivation and retention. The support level, rated as supported (S), suggests a positive approach to recognizing and developing the performance of MTB-MLE teachers. Fair and transparent performance management in urban education is essential for retaining effective educators (Ingersoll & Strong, 2018).

Work-Life Balance Support: Implementing flexible work schedules and telecommuting options is recognized as moderately supported (MS). Balancing work and personal life is crucial for teacher well-being and effectiveness, especially in urban environments where educators may face additional challenges (Ingersoll & Strong, 2018).

The support for human resources in MTB-MLE implementation (Table 4) is closely connected to the program's success, as indicated in Tables 1, 2, and 3. The positive support for career development, training opportunities, involvement, communication, and performance management aligns with the successful implementation of MTB-MLE objectives and a high level of awareness among respondents.

The positive human resources support also contributes to the effective implementation of MTB-MLE objectives (Table 3) and the awareness of these objectives among the respondents (Table 2). Teachers who feel supported in their professional development are more likely to successfully implement innovative educational approaches, such as MTB-MLE, in diverse urban settings.

The findings from Table 4 have significant implications for urban education. The strong support for career development and training opportunities aligns with urban education settings' dynamic and diverse nature, where educators must continuously adapt to changing student needs (Cummins, 2019). This support builds a skilled and motivated teaching workforce essential for effective MTB-MLE implementation.

Furthermore, the support for involvement, communication, and performance management aligns with the principles of collaborative decision-making and fair recognition. In urban education, where there is a need for flexibility and responsiveness to diverse student backgrounds, involving teachers in decision-making processes is critical for creating culturally responsive and effective educational programs (García & Kleifgen, 2018).

In conclusion, the positive support for human resources in MTB-MLE implementation, as indicated in Table 4, reinforces the program's success, connecting with the findings in Tables

1, 2, and 3. This support is crucial for fostering a skilled, motivated, and adaptable teaching workforce in urban education.

Material Resources. Table 5 evaluates the extent of support for implementing Mother Tongue-Based Multilingual Education (MTB-MLE) concerning material resources in the Laboratory Schools of Don Mariano Marcos Memorial State University (DMMMSU). The weighted mean (WM) scores indicate the support level for various aspects of material resources.

Support for Up-to-Date Learning Materials: The moderate support (MS) for using up-to-date, relevant, and sufficient learning materials reflects the importance of current and relevant resources in effective MTB-MLE implementation. This support is essential, especially in urban education settings where educational content needs to be adaptable and responsive to diverse student needs (García & Kleifgen, 2018).

Table 5.
Extent of Support for the Implementation of First Language Instruction along Material Resources

	NLUC		MLUC		SLUC		GRAND	
	WM	DR	WM	DR	WM	DR	WM	DR
Material Resources								
1. Support the use of MTB-MLE up-to-date, relevant, and enough learning materials and references.	3.50	MS	3.46	MS	3.53	S	3.50	MS
2. Support the development of original MTB-MLE instructional materials.	3.44	MS	3.54	S	3.47	MS	3.49	MS
3. Support the patronization of our own Iloko literature (poems, stories, songs, etc.).	3.50	MS	3.46	MS	3.47	MS	3.48	MS
4. Support the use of state-of-the-art educational technologies for effective and efficient transfer of learning.	3.75	S	3.62	S	3.53	S	3.63	S
5. Support the use of beautiful, appropriate, and meaningful MTB-MLE instructional materials.	3.69	S	3.62	S	3.47	MS	3.58	S
GRAND WM	3.58	S	3.54	S	3.49	MS	3.54	S

Legend: **WM** – Weighted Mean; **DR** – descriptive rating; **FS** – Fully Supported; **S** – Supported; **MS** – Moderately Supported; **SS** – Slightly Supported; **NS** – Not Support

Support for Development of Original Instructional Materials: The moderate support for developing original MTB-MLE instructional materials indicates a recognition of the need for locally relevant content. This aligns with the principles of culturally responsive education, which is crucial in urban settings characterized by cultural diversity (García & Kleifgen, 2018). Educators must develop materials that resonate with the cultural backgrounds of their students.

Support for Patronization of Local Literature: The moderate support for the patronization of local Iloko literature suggests acknowledging the significance of incorporating indigenous knowledge and cultural content into the curriculum. This aligns with the broader goals of preserving linguistic and cultural heritage in MTB-MLE programs (Arnold et al., 2006).

Support for Educational Technologies: The support for using state-of-the-art educational technologies indicates an understanding of technology's role in facilitating effective and efficient learning. In urban education, where access to technology may vary, supporting its use ensures that all students have an equal opportunity to benefit from technological advancements (Tomlinson, 2017).

Support for Meaningful Instructional Materials: The support for using beautiful, appropriate, and meaningful MTB-MLE instructional materials underscores the importance of materials that engage students and align with their cultural context. In urban education, where students may have diverse learning preferences, supporting the development of meaningful materials is crucial for creating inclusive learning environments.

The level of support for material resources in MTB-MLE implementation (Table 5) is closely connected to the findings in Tables 1-4. The positive support for material resources aligns with the successful implementation of MTB-MLE objectives (Table 3) and the support provided by human resources (Table 4). Adequate material resources are essential for translating awareness and support into effective teaching practices in diverse urban education settings (Ingersoll & Strong, 2018).

The findings from Table 5 highlight the significance of material resources in successfully implementing MTB-MLE, particularly in urban education contexts. Adequate support for up-to-date, culturally relevant materials and the integration of educational technologies contribute to creating a learning environment responsive to the diverse needs of students in urban settings (García & Kleifgen, 2018).

Moreover, the moderate support for developing original instructional materials and patronizing local literature has implications for fostering cultural relevance in urban education. Incorporating local content in the curriculum promotes a sense of cultural identity among students, contributing to a more inclusive and engaging learning experience (Arnold et al., 2006; García & Kleifgen, 2018).

In conclusion, the positive support for material resources in MTB-MLE implementation, as indicated in Table 5, reinforces the program's success, connecting with the findings in Tables 1-4. This support is crucial for creating an effective, culturally responsive, and inclusive learning environment in the context of urban education.

Financial Resources. Table 6 evaluates the extent of support for implementing Mother Tongue-Based Multilingual Education (MTB-MLE) and financial resources in the Laboratory Schools of Don Mariano Marcos Memorial State University (DMMMSU). The

weighted mean (WM) scores indicate the level of support for various financial aspects related to MTB-MLE implementation.

Support for Career Development and Advancement: The support for allocating funds for career development and opportunities for advancement is rated as supported (S). This financial support is crucial for promoting professional growth among teachers, especially in urban education settings where continuous development is essential for adapting to diverse student needs (Ingersoll & Strong, 2018).

Support for Teacher Training Opportunities: Financial support for teachers' training, seminars, workshops, and other MTB-MLE-related fora is moderately supported (MS). Adequate funding for professional development ensures that educators stay informed about best practices and innovative approaches, contributing to the successful implementation of MTB-MLE objectives (Cummins, 2019).

Table 6.
Extent of Support for the Implementation of First Language Instruction along Financial Resources

Statement of Objectives	NLUC		MLUC		SLUC		GRAND	
	WM	DR	WM	DR	WM	DR	WM	DR
Financial Resources								
Support to the allocation of funds or budgets for the following:								
a. Conduct or participate in career development and opportunities for advancement	3.75	S	3.77	S	3.60	S	3.71	S
b. Conduct or participation of teachers in training, seminars, workshops, and other MTB-MLE-related fora.	3.50	MS	3.46	MS	3.53	S	3.50	MS
c. Teachers' participation in MTB-MLE involvement and communication.	3.69	S	3.54	S	3.51	S	3.57	S
d. compensation and benefits of the teachers.	3.69	S	3.57	S	3.60	S	3.62	S
e. implementation of flexible work schedules for employees.	3.50	MS	3.46	MS	3.53	S	3.50	MS
f. The provision of MTB-MLE is up-to-date, relevant, and has enough learning materials or references.	3.50	MS	3.46	S	3.47	MS	3.49	MS
g. Production of original MTB-MLE instructional materials.	3.44	MS	3.46	MS	3.53	S	3.48	MS
h. Provision of state-of-the-art educational technologies for effective and efficient transfer of learning.	3.69	S	3.69	S	3.53	S	3.65	S
i. Provide beautiful, appropriate, and meaningful instructional materials.	3.44	MS	3.54	S	3.53	S	3.50	MS
GRAND WM	3.58	S	3.55	S	3.54	S	3.56	S

Legend: **WM** – Weighted Mean; **DR** – descriptive rating; **FS** – Fully Supported; **S** – Supported; **MS** – Moderately Supported; **SS** – Slightly Supported; **NS** – Not Supported

Support for MTB-MLE Involvement and Communication: The financial support for teachers' participation in MTB-MLE involvement and communication is rated as supported (S). This funding helps facilitate collaborative decision-making processes, particularly in urban education settings with diverse student populations (García & Kleifgen, 2018).

Support for Compensation and Benefits: Financial support for the compensation and benefits of teachers is supported (S). Fair and competitive compensation is vital for retaining skilled educators, especially in urban areas where challenges and demands on teachers may be high (Ingersoll & Strong, 2018; Jr et al., 2024).

Support for Flexible Work Schedules: Financial support for implementing flexible work schedules is moderately supported (MS). Flexibility in work schedules is essential for promoting a healthy work-life balance, contributing to teacher well-being and effectiveness, especially in urban environments (Tomlinson, 2017).

Support for Learning Materials and Technologies: Financial support for providing up-to-date learning materials, original instructional materials, and state-of-the-art educational technologies is moderately supported (MS and S). Adequate funding for these resources ensures that teachers can access the tools necessary for effective and efficient transfer of learning, which is critical in urban education settings (García & Kleifgen, 2018).

Support for Beautiful and Meaningful Instructional Materials: Financial support for producing or providing beautiful, appropriate, and meaningful instructional materials is moderately supported (MS). This funding contributes to creating engaging and culturally relevant materials for promoting inclusive learning environments in urban education (Arnold et al., 2006; García & Kleifgen, 2018).

The level of financial support for MTB-MLE implementation (Table 6) is interconnected with other findings in Tables 1-5. Adequate financial resources contribute to successful human and material resource support and effective implementation of MTB-MLE objectives (Tables 3 and 4). The financial backing for teacher training, compensation, and provision of learning materials aligns with the positive support observed in Tables 4 and 5.

The positive financial support in Table 6 has significant implications for urban education. In contexts characterized by diversity and complexity, ensuring adequate financial resources is crucial for creating an environment that supports educators' professional growth and well-being (Ingersoll & Strong, 2018; Ancheta et al.; R. Q., 2024). Financial support for learning materials and technologies is particularly relevant for urban education, where access to resources may vary among schools and students (García & Kleifgen, 2018).

Furthermore, financial support for career development and flexible work schedules address educators' unique challenges in urban settings, contributing to a more sustainable and resilient teaching workforce (Tomlinson, 2017). As supported by financial resources, adequate compensation and benefits are essential for retaining skilled teachers in urban schools, ultimately impacting the quality of education provided to students (Ingersoll & Strong, 2018).

In conclusion, the positive financial support for MTB-MLE implementation, as indicated in Table 6, reinforces the program's success, connecting with the findings in Tables 1-5. Adequate financial resources are essential for fostering a supportive and effective educational environment in the context of urban education.

Conclusion

Based on the comprehensive assessment of the Mother Tongue-Based Multilingual Education (MTB-MLE) program at Don Mariano Marcos Memorial State University's

laboratory schools, specific recommendations can be made to address the identified implementation gaps. Policymakers should prioritize enhancing funding allocations specifically designated for MTB-MLE programs to improve the availability of resources such as instructional materials and teacher training. This targeted financial support is crucial to achieving equitable access across all educational settings, particularly in light of the moderate implementation status observed in resource provision (Table 3, objectives e and f). Additionally, policymakers need to thoroughly review existing policies related to cognitive development within MTB-MLE frameworks. Revising policies to incorporate more targeted strategies and resources to enhance cognitive abilities among students from diverse linguistic backgrounds can bridge the gaps identified in Table 3 under objective b.

Furthermore, supportive policy frameworks should be developed to encourage curriculum localization and indigenization flexibility. This empowerment allows schools to adapt MTB-MLE principles to their specific educational and social contexts, thereby addressing the current moderate implementation status in curriculum development (Table 3, objective h). Implementing robust monitoring and evaluation systems is also recommended to assess the effectiveness of MTB-MLE implementation regularly. This proactive approach enables policymakers to identify and rectify gaps promptly, ensuring continuous improvement and alignment with educational objectives across all MTB-MLE goals outlined in Table 3.

Educators, on the other hand, should prioritize ongoing professional development opportunities focused explicitly on MTB-MLE strategies, particularly those aimed at improving students' cognitive abilities and socio-cultural awareness (Table 3, objectives b and c). By investing in collaborative curriculum development practices, educators can harness collective expertise to create culturally responsive instructional materials that resonate with students' linguistic and cultural backgrounds. This collaborative effort addresses objectives d, e, and f in Table 3, ensuring that the MTB-MLE curriculum remains relevant and practical across diverse learning environments. Integrating state-of-the-art educational technologies into MTB-MLE classrooms enhances learning experiences and facilitates effective language acquisition (Table 3, objectives e and f). Educators should receive adequate training and support to leverage technology effectively, thereby overcoming the current moderate implementation status in resource availability. Lastly, educators should engage actively with local communities to promote using regional languages and indigenous knowledge in MTB-MLE instruction. Collaborating with community stakeholders can help develop and incorporate local literature and cultural materials into the curriculum, supporting goals related to socio-cultural awareness (Table 3, Objectives C and j).

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