

## DETERMINANTS OF READING ACHIEVEMENT IN MOTHER TONGUE-BASED MULTILINGUAL EDUCATION OF GRADE 2 STUDENTS

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**ABSTRACT :** Despite widespread implementation of mother tongue-based multilingual education (MTB-MLE) programs, achieving consistent reading success remains a challenge. This study explored the factors influencing reading achievement among Grade 2 students participating in the mother tongue-based multilingual education (MTB-MLE) program in Gandara, Schools Division of Samar, Philippines (School Year 2022-2023). A descriptive-correlational design with survey questionnaires was employed. The findings revealed a diverse sample regarding parental educational background and income. While a high level of parental support was observed, students expressed challenges with understanding MTB-MLE content and boredom with reading materials. There were no significant correlations between reading achievement and variables like age, sex, or parental occupation. However, parental follow-up and student attitude towards MTB-MLE were found to significantly influence reading achievement. These findings highlight the need for a more nuanced understanding of how socioeconomic background and student engagement interact with MTB-MLE implementation. The study recommends investigating the influence of parental educational background on student aspirations, developing strategies to address challenges with reading materials, and exploring ways to improve student engagement and address uncertainties regarding mother tongue instruction. Additionally, future research should consider a more comprehensive analysis of factors impacting reading success and explore the non-normal distribution of some data to refine interpretations and statistical approaches.

**KEYWORDS :** Reading achievement, MTB-MLE (mother tongue-based multilingual education), Grade 2 students, Determinants of reading, Socioeconomic factors, Parental involvement, Reading engagement, Mother tongue instruction

### I. INTRODUCTION

Language plays a fundamental role in education, acting as the primary vehicle for both teaching and learning. In linguistically diverse nations like the Philippines, the Mother Tongue-Based Multilingual Education (MTB-MLE) program was implemented to improve educational outcomes by using students' first language as the medium of instruction in the early grades. This approach is rooted in the widely accepted principle that students learn more effectively and achieve higher literacy when taught in a language they fully comprehend [4]. Research consistently supports this, showing that strong early literacy development in one's native language positively influences academic achievement in subsequent languages [1, 4].

The Philippines' DepEd Order No. 74, Series of 2012, officially introduced the MTB-MLE policy as a transformative step to address the nation's significant linguistic diversity. This policy mandated the use of students' native languages during the crucial early years of schooling. Studies by Walter [5], Zergani [6], and Piper, Zuilkowski, & Ong'ele [3] have consistently demonstrated that instruction in the mother tongue positively impacts students' reading achievement by allowing them to build robust foundational literacy skills. The policy recognized that using the native language facilitates a more natural learning process, fostering higher proficiency in essential skills such as reading comprehension, oral fluency, and critical thinking [2].

Despite the documented benefits and positive outcomes observed in some regions, the implementation of MTB-MLE has faced significant hurdles, especially in areas with multiple languages. Teachers, administrators, and other stakeholders have voiced concerns regarding difficulties with translation, a scarcity of appropriate instructional materials, and the increased workload associated with the program. Teachers in the District of Gandara II, Samar, for instance, have reported considerable struggles.

Alarming, the Early Grade Reading Assessment (EGRA) conducted in June 2022 among Grade 2 students in this district revealed a notable decline in reading achievement. The assessment, which measured key reading skills like English listening comprehension, oral reading fluency, and dictation, showed a significant rise in the number of students scoring zero. This indicated a widespread inability among many students to demonstrate even basic reading proficiency in both English and Filipino.

The EGRA data further highlighted a deterioration in students' reading skills across both languages, with average correct words per minute dropping by 8 in English and 10 in Filipino. The most substantial performance declines were observed in critical early literacy skills such as English letter sounds and dictation. This downturn suggests that students in multilingual environments may struggle more with reading achievement when mother tongue instruction is not consistently or effectively implemented in the classroom.

A compelling local example of these challenges emerged from Gandara II Central Elementary School (CES) during the 2021-2022 School Year. Teachers there reported that many of their Grade 2 students remained at a "non-reader" or "frustration" level by the end of the academic year. Data collected revealed that out of 31 male students, 10 were still non-readers, and the majority were at the frustration level, underscoring an urgent need for targeted interventions in reading instruction. Despite the presence of the MTB-MLE program, a considerable number of students continued to grapple with reading achievement, particularly in English.

This study aims to examine the determinants of reading achievement among Grade 2 students within the MTB-MLE program, with a specific focus on multilingual learners in Basey, Samar. It seeks to provide empirical evidence on the effectiveness of mother tongue instruction in improving reading outcomes and to identify challenges and opportunities for enhancing the program's implementation. By integrating quantitative data from EGRA with qualitative insights from teachers and stakeholders, this research contributes to ongoing discussions on language education policies and practices in the Philippines.

Through this investigation, the study offers comprehensive insights into the various factors influencing students' reading achievement within a multilingual learning environment. It explores how language, instructional strategies, and classroom resources interact to affect literacy outcomes. Additionally, the study investigates how the MTB-MLE program can be better supported, enhanced, and effectively implemented, identifying key areas for improvement to ensure students achieve the desired literacy outcomes by the end of their early grade years, thereby strengthening foundational reading skills critical for their future academic success.

## II. RESEARCH QUESTIONS

This study determined the determinants of reading achievement in the Mother Tongue-Based Multilingual Education (MTB-MLE) of Grade 2 students in the District of Gandara II, Schools Division of Samar, for School Year 2022-2023. Specifically, it sought answers to the following questions:

1. What is the profile of the student-respondents in the District of Gandara II, School Division of Samar along the following variates:

- 1.1. age and sex;
- 1.2. parents' highest educational attainment;
- 1.3 parents' occupation;
- 1.4 gross monthly family income;
- 1.5 most preferred reading material read at home;
- 1.6 number of times that preferred reading material read at home;
- 1.7 parent's follow-up; and
- 1.8 attitude toward MTB-MLE?

2. What is the reading achievement of student-respondents in the MTB-MLE as depicted in the Early Grade Reading Assessment result based on the following?

- 2.1 listening comprehension;
- 2.2 letter sounds;
- 2.3 non-word reading;
- 2.4 oral reading fluency 1;
- 2.5 reading comprehension 1;
- 2.6 oral reading fluency 2; and
- 2.7 reading comprehension 2?

3. Is there a significant relationship between the reading achievement of student-respondents in MTB-MLE to their personal profile?

4. What are the determinants of reading achievement in MTB-MLE of student-respondents in terms of the following?

- 4.1 reading problems;
- 4.2 students' attitude;
- 4.3 family support; and

- 4.4 teaching and learning in the classroom?
5. Is there a significant relationship between the determinants of reading achievement in MTB-MLE of student-respondents along the following:
  - 5.1 personal profile; and
  - 5.2 reading achievement?
6. What intervention program could be crafted based on the findings of the study?

### III. CONCEPTUAL FRAMEWORK

Figure 1 presents the conceptual framework of the study, illustrating the interconnected factors that influence students' reading achievement within the context of the Mother Tongue-Based Multilingual Education (MTB-MLE) program. The framework is structured from the bottom to the top, starting with the research environment, which includes Grade 2 students from the District of Gandara II.

The middle section of the framework focuses on the main variables that directly impact students' reading achievement. It comprises three key components: the profile of the student-respondents, which includes demographic and socio-economic characteristics; the reading achievement of student-respondents, which assesses specific literacy skills like listening comprehension, letter sounds, and reading fluency; and the determinants of reading achievement, which identify crucial factors such as reading problems, students' attitudes, family support, and classroom teaching methods. These main variables interact to provide a comprehensive view of the factors influencing students' reading outcomes within the MTB-MLE setting.

At the top of the framework, several interconnected boxes represent the findings and proposed solutions derived from analyzing the main variables. The problems encountered by the student-respondents for the MTB-MLE subject identifies the challenges students face, which are essential for understanding the gaps and areas needing improvement. The Findings and Implications box synthesizes the study's data, offering insights and suggesting necessary actions or adjustments to improve reading outcomes.

Following this, the Proposed Intervention Program outlines targeted strategies designed to address the identified problems, focusing on enhancing teaching methods, increasing family involvement, and improving student engagement. The framework culminates in the ultimate goal of improved students' reading achievement in MTB-MLE, emphasizing the need for a continuous feedback loop to refine interventions and achieve the desired literacy outcomes for Grade 2 students in a multilingual learning environment.

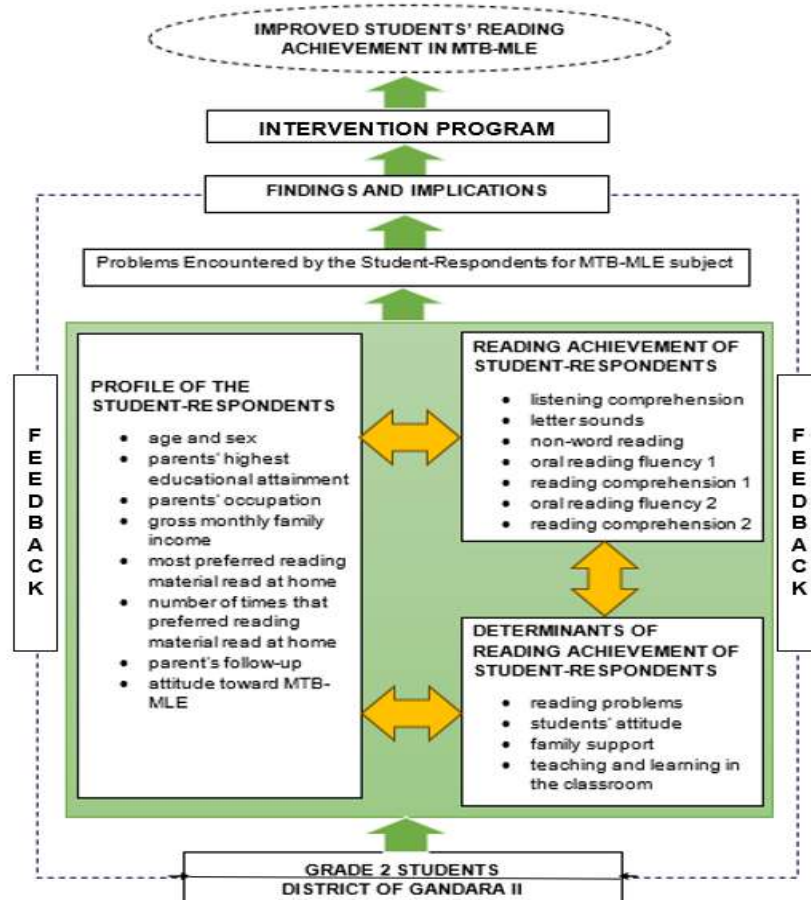


Figure 1. the paradigm of the study

#### IV. METHODOLOGY

##### Research Design

This research study adopted the descriptive-correlational method of research. The descriptive method emphasized the present condition of the phenomena under study, describing the current situation to determine the nature of the prevailing practice and providing an accurate description of activities, objects, persons, and processes. As a descriptive study, it featured an intensive analysis and interpretation of the characteristics of its respondent population, as well as other variables related to them. The characteristics used to describe the situation or population in a descriptive method are known as descriptive categories (Shields & Rangarajan, 2013). In short, this method describes and interprets "what is."

This design also provided descriptive information on the demographic nature of the population/respondents considered in this study. The study included a thorough description, recording, analysis, and interpretation of the data gathered using various statistical techniques. Descriptive statistics such as frequency and percentage were employed to present the distribution of student-respondents in terms of age, sex, parents' highest educational attainment, parents' occupation, gross monthly family income, most preferred reading material at home, number of times that preferred reading material read at home, parent's follow-up, and attitude toward MTB-MLE.

The mean absolute deviation (MAD) was used to measure variability in the respondents' ages and other continuous variables, while skewness was calculated to assess the normality of the data distribution, with values indicating the degree of right or left skewness in the dataset.

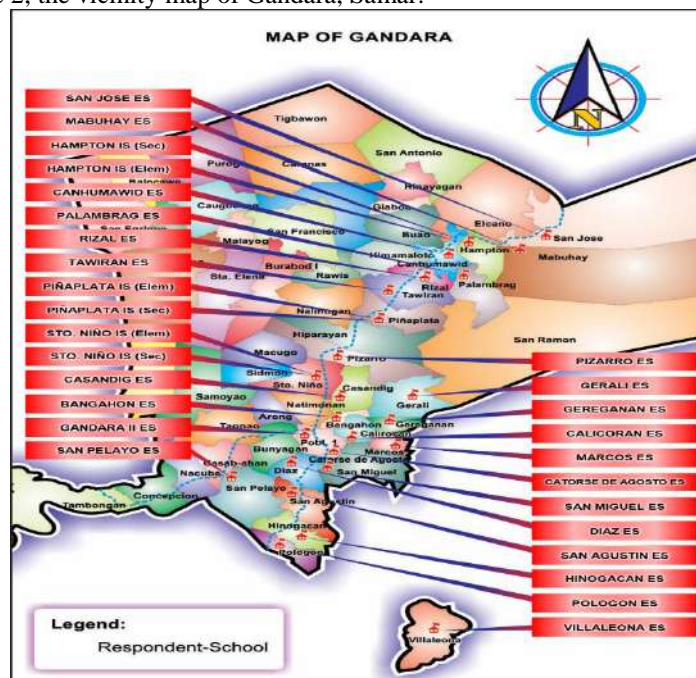
The study also incorporated correlation analysis to explore the relationships between different variables. For this, Spearman's Rank-Order Correlation ( $\rho$ ) was applied to determine the strength and direction of relationships, particularly between student reading achievement and variables such as parents' educational attainment and follow-up. Cramér's V was used to measure the association between categorical variables such as sex and reading achievement.

Additionally, Fisher's t-test was employed to assess the significance of the relationships between various study variables, testing whether relationships such as that between reading achievement and parental involvement were statistically significant. The mode was used to describe the most frequent value in categories like grades, while the median was used to present the central tendency of students' ages.

Given the correlational nature of this study, the relationships between several variables were examined to determine if there was a statistically significant correlation. The use of these statistical tools facilitated a comprehensive analysis of the data, allowing the study to identify key relationships and patterns within the variables under investigation.

##### Locale of the Study

The study was conducted in the District of Gandara II, Schools Division of Samar, covering several schools, as shown in Figure 2, the vicinity map of Gandara, Samar.





*Figure 2. the map showing the locale of the study*

The schools involved in the study were San Jose Elementary School, Mabuhay Elementary School, Hampton Integrated School (both Secondary and Elementary levels), Canhumawid Elementary School, Palambrag Elementary School, Rizal I Elementary School, Tawiran Elementary School, Piñaplata Integrated School (Elementary and Secondary levels), Sto. Niño Integrated School (Elementary and Secondary levels), Casandig Elementary School, Bangahon Elementary School, Gandara II Central Elementary School, San Pelayo Elementary School, Pizarro Elementary School, Gerali Elementary School, Geregangan Elementary School, Calirocan Elementary School, Marcos Elementary School, Catorse de Agosto Elementary School, San Miguel Elementary School, Diaz Elementary School, San Agustin Elementary School, Hinogacan Elementary School, Pologon Elementary School, and Villaleona Elementary School.

### **Instrumentation**

Several data-gathering instruments were utilized by the researcher in order to collect essential information needed in this study, which included a questionnaire, documentary analysis, interview, and observation. These are discussed below.

**Questionnaire.** This was the main data-gathering tool for data collection. The questionnaire was divided into four (4) parts and was answered by the Grade 2 students themselves.

Part I of the questionnaire was intended to collect information on the personal profile of the student-respondents, including their age, sex, parents' highest educational attainment, parents' occupation, gross monthly family income, most preferred reading material at home, number of times that preferred reading material read at home, parent's follow-up, and attitude toward MTB-MLE.

Part II focused on the students' attitude toward MTB-MLE, collecting information about their perception of the math subject, such as whether they liked doing it, whether they understood and enjoyed what they were doing. The responses regarding the student-respondents' perception of MTB-MLE were categorized using a five-point Likert scale, where 5 meant Strongly Agree (SA), 4 meant Agree (A), 3 meant Neutral (N), 2 meant Disagree (D), and 1 meant Strongly Disagree (SD).

Part III elicited information on the reading achievement of Grade 2 learners in MTB-MLE based on a determined set of parameters such as listening comprehension, letter sounds, non-word reading, oral reading fluency 1, reading comprehension 1, oral reading fluency 2, and reading comprehension 2. They were directed to write down their answers on the given parameters as reflected in the results of the Early Grade Reading Assessment with the assistance of their teachers.

Part IV collected information on the determinants of reading achievement of Grade 2 pupils, focusing on Reading Problems, which consisted of four (4) statements; Students' Attitudes, with seven (7) statements; Family Support, with three (3) statements; and Teaching and Learning in the classroom, with four (4) statements. This part was adapted from the study of Suwanaroa (2021). Responses were categorized using a five-point Likert scale, where 5 meant Very High, 4 meant High, 3 meant Medium, 2 meant Low, and 1 meant Very Low.

Part V of the questionnaire was intended to collect information on the common problems encountered by the student-respondents regarding MTB-MLE instruction. The student-respondents were directed to a list of common problems encountered in MTB-MLE instruction and asked to check all the items they deemed problematic.

**Documentary Analysis.** This data-gathering technique was used to validate the profile of the secondary student-respondents, particularly regarding their age and sex, parent's educational attainment, parent's occupation, and monthly family income, which were available at the district office.

**Observation.** This tool was also employed in this study as one of the primary data-gathering methods, specifically aimed at ensuring the accuracy and reliability of the data collected from the respondents. It played a crucial role in cross-checking and verifying the consistency of the responses provided by the respondents, allowing the researcher to identify any discrepancies or variations in the data.

### **Validation of Instrument**

An adapted questionnaire from the study of Suwanaroa (2021) was used by the researcher in gathering data for this research. The adapted questionnaire required no further validation since it had already been used in previous research, thereby establishing its reliability and validity.

The part that elicited responses on the personal profile of the student-respondents underwent expert validation from the Panel of Oral Examiners of Samar College Inc. College of Graduate Studies to ensure it suited each variable relevant to what the current study aimed to investigate.

### **Data Gathering Procedure**

Before administering the research instruments, the researcher secured a written permit from the Schools Division Superintendent of the Division of Samar, granting permission to distribute the questionnaire and gather relevant data. This initial approval was then used to obtain further consent from the district

supervisor, school principals of the selected elementary schools, and the parents of the student-respondents, given that the study involved minors.

Upon receiving the necessary permits, the researcher personally administered the questionnaires to the respondents, with assistance from the Grade 2 advisers to ensure clarity and expedite the data collection process. During the administration, the researcher ensured that all instructions were clearly communicated to the students. Once the questionnaires were completed, they were promptly retrieved for tabulation, analysis, and interpretation.

The data collection period spanned from August 2023 to January 2024.

## V. SUMMARY OF FINDINGS

1. The data reveal a skewed distribution of the respondents' ages, with a median age of 8 years old and a high skewness value of 1.38, indicating a non-normal distribution. The mean absolute deviation (MAD) values suggest a relatively low dispersion, with males having a more concentrated distribution than females. The skewed distribution and non-normal characteristics of the data should be considered when analyzing and interpreting the results, as they may affect the interpretation of statistical tests and the application of statistical models.

2. The largest proportion of parents were college graduates, followed by those with graduate-level education and elementary graduates, indicating a diverse sample in terms of parental educational attainment. This information provide valuable context for understanding the educational background and resources available to the student-respondents, which can be a significant factor in shaping their educational aspirations and outcomes. The missing data on parental educational attainment for a small percentage of respondents should be considered when interpreting the results, as it may introduce potential biases or limitations in the analysis.

3. Majority of parents (64.66%) were unemployed, suggesting that the student-respondents may come from families with lower socioeconomic status, which can have significant implications for their educational experiences and outcomes. The high percentage of unemployed parents highlight the potential challenges and barriers these students may face, such as financial constraints and limited access to educational resources. The missing data for a small percentage of respondents should be considered when interpreting the results, as it may introduce potential biases or limitations in the analysis.

4. Majority of families (62.93%) had a monthly income between Php 10,000.00 and Php 15,999.00, suggesting that the student-respondents come from relatively low-income backgrounds, which may present challenges in terms of financial resources and support for their educational pursuits. The skewed distribution toward the lower income ranges indicate that the sample may not be representative of the general population, and this should be considered when interpreting the findings and drawing conclusions in the thesis. The missing data on family income for a small percentage of respondents should also be accounted for in the analysis, as it may introduce potential biases or limitations in the interpretation of the results.

5. Majority of students preferred reading a diverse range of materials, including books, newspapers, encyclopedias, dictionaries, magazines, and novels, suggesting that they are engaged in various literary activities at home that can support their academic development. The high percentages across different types of reading materials indicated that the student-respondents have access to a wide range of educational resources and are actively involved in both educational and recreational reading. This information can be used in a thesis to explore the relationship between students' reading preferences, their home reading environment, and their academic performance, providing valuable insights into the factors that shape their educational outcomes.

6. Majority of students read their preferred materials 3 times, indicating a moderate level of engagement, with a relatively low dispersion in the number of times the materials are read, as indicated by the Mean Absolute Deviation (MAD) of 0.99. However, the slightly skewed distribution to the right suggests that the data does not follow a normal distribution, which should be considered when analyzing and interpreting the results in the context of a thesis. This information provides insights into the reading habits and engagement of the student-respondents, which can be an important factor in understanding their academic performance and educational outcomes.

7. The student-respondents perceive their parents as being engaged and supportive in providing follow-up and support for their studies, as indicated by the grand weighted mean of 1.80, which falls within the "Agree" range. This level of parental involvement and support is a positive indicator that can contribute to the students' academic success, as parental engagement has been widely recognized as a crucial factor in shaping educational outcomes. Exploring the specific reasons or patterns behind the parents' level of engagement could offer additional insights into the dynamics of parental involvement and its impact on the students' educational experiences.

8. The student-respondents have a generally positive attitude towards the use of their mother tongue as a medium of instruction (MTB-MLE), as indicated by the grand weighted mean of 3.05, which falls within the "Uncertain" range with an interpretation of "Good". However, the students express some areas of uncertainty or mixed feelings, which may be influenced by factors such as their familiarity with the language, the quality of

instruction, or the integration of MTB-MLE into their overall learning experience. This information can be used to inform educational policies, teacher training programs, and curriculum development to improve the MTB-MLE program and enhance the students' learning experiences.

9. Majority of students (73.85%) received a final grade of 1, indicating that most students are performing at a relatively low level in listening comprehension. The skewed distribution and non-normal characteristics of the data suggest that the interpretation of statistical tests and models should take this into account, highlighting potential areas for improvement in the MTB-MLE program.

10. Majority of students (60.06%) received a final grade of 1 in the area of letter sounds, indicating a relatively low performance in this fundamental component of early reading development. The non-normal distribution of the data suggests that there may be other factors influencing the reading achievement of the student-respondents that are not fully captured by the EGRA results, which should be considered in the analysis and interpretation of the findings in the context of a thesis.

11. Majority of students (80.46%) received a final grade of 2 in the area of non-word reading, indicating a relatively high performance in this aspect of their reading skills. The left-skewed distribution of the data suggests that the majority of students are clustered towards the higher end of the performance scale, which could be due to various factors, such as effective instruction, the use of appropriate teaching strategies, or the students' prior exposure to reading activities.

12. Majority of students (84.20%) received a final grade of 2 in the area of Oral Reading Fluency 1, indicating a relatively high performance in this crucial component of reading proficiency. The left-skewed distribution of the data suggests that the majority of students are clustered towards the higher end of the performance scale, which could be due to various factors, such as effective instruction, the use of appropriate teaching strategies, or the students' prior exposure to reading activities.

13. Majority of students (79.02%) received a final grade of 2 in the area of Reading Comprehension 1, indicating a relatively high performance in this crucial component of reading proficiency. The left-skewed distribution of the data suggests that the majority of students are clustered towards the higher end of the performance scale, which could be due to various factors, such as effective instruction, the use of appropriate teaching strategies, or the students' prior exposure to reading activities.

14. Majority of students (92.53%) received a final grade of 2 in the area of Oral Reading Fluency 2, indicating a very high performance in this crucial component of reading proficiency. The strong left-skewed distribution of the data suggests that the majority of students are clustered towards the higher end of the performance scale, which could be due to various factors, such as effective instruction, the use of appropriate teaching strategies, or the students' prior exposure to reading activities.

15. Majority of students (90.23%) received a final grade of 2 in the area of Reading Comprehension 2, indicating a very high performance in this crucial component of reading proficiency. The strong left-skewed distribution of the data suggests that the majority of students are clustered towards the higher end of the performance scale, which could be due to various factors, such as effective instruction, the use of appropriate teaching strategies, or the students' prior exposure to reading activities.

16. The data showed that the only significant relationship is between the student-respondents' reading achievement and their parents' highest educational attainment, with a very weak positive correlation, suggesting that students' reading performance is slightly influenced by their parents' educational background. The lack of significant relationships for other variables, such as age, sex, parents' occupation, and income, highlights the need for a more comprehensive and nuanced approach to analyzing the factors that contribute to the success of the MTB-MLE program.

17. The data showed that the student-respondents experience a "Medium" or "Moderate" level of reading problems in the MTB-MLE program, with specific challenges in understanding content, relating it to personal experiences, and comprehending vocabulary, expressions, sentence structure, and grammar. This information provides valuable insights as to specific areas of reading that need to be addressed to improve the students' reading outcomes MTB-MLE program.

18. The data showed that the student-respondents have a "Medium" or "Moderate" level of positive attitude towards reading in the MTB-MLE program, with a tendency to like studying reading in MTB-MLE and reading materials from different media, but also expressing some boredom and laziness when reading subject content in MTB-MLE. This information provides insights into the attitudinal factors that may influence the reading achievement of the student-respondents and highlights the need to address any underlying issues to enhance their engagement, motivation, and overall perception of reading in the MTB-MLE program.

19. The data showed that the student-respondents experience a "High" or "Substantial" level of family support for their reading in the MTB-MLE program, with their families actively involved in promoting and supporting their reading habits and skills. This information highlights the importance of family involvement in enhancing the reading outcomes of students in the MTB-MLE program and suggests that educational

stakeholders should consider ways to further engage and empower families to support their children's reading development.

20. The data showed that the student-respondents have a "Medium" or "Moderate" level of positive perception towards the teaching and learning aspects of reading in the MTB-MLE program, with a high level of agreement that there should be more reading courses in the curriculum and that they can practically apply the content from the reading courses, but also expressing a moderate level of agreement that the activities in their reading classes are obsolete and not interesting. This information suggests that there are areas for improvement in the instructional strategies, teacher training, and curriculum design to enhance the quality of reading instruction and create a more engaging learning environment for the students.

21. The data showed that the students' reading achievement in the MTB-MLE program is significantly influenced by the level of parental follow-up and their own attitude towards the program. The significant relationships identified highlight the importance of fostering a positive perception and engagement among the students towards the MTB-MLE program and the role of family involvement in supporting the students' reading development.

22. The data showed that the relationship between the determinants of reading achievement and academic achievement is not statistically significant, suggesting that reading proficiency may not directly translate to overall academic performance. This highlights the need for a more comprehensive approach to understanding the factors that contribute to academic success in the MTB-MLE program.

23. The data showed that the most commonly reported problem is the lack of books written in the mother tongue, with 70.69% of the student-respondents citing this as an issue. Additionally, students face challenges in understanding the content and language used in the MTB-MLE materials, including unfamiliarity with terms, lack of vocabulary, and lack of interest in using the mother tongue for instruction.

## VI. CONCLUSION AND RECOMMENDATION

1. The skewed distribution and non-normal characteristics of the age data should be considered when analyzing and interpreting the results, as they may affect the interpretation of statistical tests and the application of statistical models.

2. The diverse sample in terms of parental educational attainment provides valuable context for understanding the educational background and resources available to the student-respondents, which can be a significant factor in shaping their educational aspirations and outcomes.

3. The high percentage of unemployed parents highlights the potential challenges and barriers these students may face, such as financial constraints and limited access to educational resources.

4. The skewed distribution of family income toward the lower ranges suggests that the sample may not be representative of the general population, and this should be considered when interpreting the findings and drawing conclusions in the thesis.

5. The student-respondents' engagement in various literary activities at home can be used to explore the relationship between their reading preferences, home reading environment, and academic performance, providing valuable insights into the factors that shape their educational outcomes.

6. The slightly skewed distribution of the number of times reading materials are read should be considered when analyzing and interpreting the results, as it suggests that the data does not follow a normal distribution.

7. The high level of parental involvement and support is a positive indicator that can contribute to the students' academic success, and exploring the specific reasons or patterns behind the parents' level of engagement could offer additional insights into the dynamics of parental involvement and its impact on the students' educational experiences.

8. The students' areas of uncertainty or mixed feelings towards the use of their mother tongue as a medium of instruction (MTB-MLE) can inform educational policies, teacher training programs, and curriculum development to improve the MTB-MLE program and enhance the students' learning experiences.

9. The skewed distribution and non-normal characteristics of the data on listening comprehension suggest that the interpretation of statistical tests and models should take this into account, highlighting potential areas for improvement in the MTB-MLE program.

10. The non-normal distribution of the data on letter sounds suggests that there may be other factors influencing the reading achievement of the student-respondents that are not fully captured by the EGRA results, which should be considered in the analysis and interpretation of the findings.

11. The left-skewed distribution of the data on non-word reading suggests that the majority of students are clustered towards the higher end of the performance scale, which could be due to various factors, such as effective instruction, the use of appropriate teaching strategies, or the students' prior exposure to reading activities.

12. The left-skewed distribution of the data on Oral Reading Fluency 1 suggests that the majority of students are clustered towards the higher end of the performance scale, which could be due to various factors,



such as effective instruction, the use of appropriate teaching strategies, or the students' prior exposure to reading activities.

13. The left-skewed distribution of the data on Reading Comprehension 1 suggests that the majority of students are clustered towards the higher end of the performance scale, which could be due to various factors, such as effective instruction, the use of appropriate teaching strategies, or the students' prior exposure to reading activities.

14. The strong left-skewed distribution of the data on Oral Reading Fluency 2 suggests that the majority of students are clustered towards the higher end of the performance scale, which could be due to various factors, such as effective instruction, the use of appropriate teaching strategies, or the students' prior exposure to reading activities.

15. The strong left-skewed distribution of the data on Reading Comprehension 2 suggests that the majority of students are clustered towards the higher end of the performance scale, which could be due to various factors, such as effective instruction, the use of appropriate teaching strategies, or the students' prior exposure to reading activities.

16. The lack of significant relationships between reading achievement and other variables, such as age, sex, parents' occupation, and income, highlights the need for a more comprehensive and nuanced approach to analyzing the factors that contribute to the success of the MTB-MLE program.

17. The student-respondents' specific challenges in understanding content, relating it to personal experiences, and comprehending vocabulary, expressions, sentence structure, and grammar provide valuable insights into the areas of reading that need to be addressed to improve their reading outcomes and overall performance in the MTB-MLE program.

18. The student-respondents' tendency to express boredom and laziness when reading subject content in MTB-MLE provides insights into the attitudinal factors that may influence their reading achievement and highlights the need to address any underlying issues to enhance their engagement, motivation, and overall perception of reading in the MTB-MLE program.

19. The high or substantial level of family support for the student-respondents' reading in the MTB-MLE program highlights the importance of family

involvement in enhancing their reading outcomes and suggests that educational stakeholders should consider ways to further engage and empower families to support their children's reading development.

20. The student-respondents' moderate level of positive perception towards the teaching and learning aspects of reading in the MTB-MLE program suggests that there are areas for improvement in the instructional strategies, teacher training, and curriculum design to enhance the quality of reading instruction and create a more engaging learning environment.

21. The significant influence of parental follow-up and the students' attitude towards the MTB-MLE program on their reading achievement highlights the importance of fostering a positive perception and engagement among the students and the role of family involvement in supporting their reading development.

22. The lack of a statistically significant relationship between respondents' determinants of reading achievement and their academic achievement suggests that reading proficiency may not directly translate to overall academic performance, highlighting the need for a more comprehensive approach to understanding the factors that contribute to academic success in the MTB-MLE program.

23. The most commonly reported problem of the lack of books written in the mother tongue, along with the challenges in understanding the content and language used in the MTB-MLE materials, suggest that addressing these issues is crucial for improving the learning experiences and outcomes of the student-respondents.

The paper recommends the following:

1. Investigate the specific factors that contribute to the diverse sample in terms of parental educational attainment and how these factors shape the educational aspirations and outcomes of the student-respondents.

2. Develop strategies to address the challenges and barriers faced by students with unemployed parents, such as providing access to educational resources and financial support.

3. Explore ways to make the MTB-MLE program more representative of the general population, considering the skewed distribution of family income towards the lower ranges.

4. Analyze the relationship between the reading preferences of student-respondents' preferences, home reading environment, and academic performance to identify the factors that shape their educational outcomes.

5. Investigate the reasons behind the slightly skewed distribution of the number of times reading materials are read and its impact on the students' reading achievement.

6. Examine the specific patterns and reasons behind the high level of parental involvement and support, and explore ways to further engage and empower families to support their children's reading development.

7. Develop strategies to address the students' areas of uncertainty or mixed feelings towards the use of their mother tongue as a medium of instruction (MTB-MLE) and enhance their learning experiences.

8. Identify the factors influencing the reading achievement of the student-respondents that are not fully captured by the EGRA results, considering the non-normal distribution of the data on listening comprehension and letter sounds.

9. Conduct a more comprehensive and nuanced analysis of the factors that contribute to the success of the MTB-MLE program, considering the lack of significant relationships between reading achievement and variables such as age, sex, parents' occupation, and income.

10. Conduct further studies to explore the relationship between the skewed distribution of age data and its impact on the interpretation of statistical tests and the application of statistical models in the context of the MTB-MLE program.

11. Schools should implement long-term reading programs like banner projects in Reading and the National Literacy Campaign (NLC) in different grade levels to promote a culture of reading and improve students' proficiency.

12. Schools should intensify the monitoring of "Catch-Up Fridays" and the National Reading Program (NRP) to provide timely support to students behind in reading and ensure targeted interventions for improvement.

13. Schools should implement quarterly rewards and recognition programs to motivate students, encouraging improvement in reading proficiency through certificates, special privileges, or public acknowledgment during school ceremonies.

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## REFERENCES

- [1] Ganuza, N., & Hedman, C. (2019). The impact of mother tongue instruction on the development of biliteracy: Evidence from Somali-Swedish bilinguals. *Applied Linguistics*, 40(1), 108-131.
- [2] Nyika, A. (2015). Mother tongue as the medium of instruction at developing country universities in a global context. *South African Journal of Science*, 111(1-2), 01-05.
- [3] Piper, B., Zuilkowski, S. S., & Ong'ele, S. (2016). Implementing mother tongue instruction in the real world: Results from a medium-scale randomized controlled trial in Kenya. *Comparative Education Review*, 60(4), 776-807.
- [4] UNICEF. (2000). The role of language in children's educational achievement: A case study of mother tongue-based multilingual education. UNICEF Report.
- [5] Walter, S. (2017). The impact of mother tongue instruction on reading achievement: Evidence from multilingual contexts. *Journal of Multilingual and Multicultural Development*, 38(3), 235-248. <https://doi.org/10.1080/01434632.2016.1249851>
- [6] Zergani, A. (2016). Effects of using and teaching with mother tongue language in primary school. *Journal of Multilingual Education Research*, 7(1), 45-61.