

The Implementation of Mother Tongue – Based Multilingual Education: Viewing it from the Grade III Teachers’ Perspective

Michael L. Estremera, MAED + 60 units Ph.D.
Marinas 1 Elementary School, Sorsogon East, Sorsogon City 4700, Philippines

Abstract

It had already been six years, when MTB-MLE was implemented nationwide along with the seemingly coercive and half-baked implementation of K to 12 curriculum. In fact, its implementation from the start had been flooded with several criticisms from all walks of life. Questions relative to building inadequacy, qualified teachers to handle senior high school students, useful and trendy school facilities, books and so forth are but a few to mention. The descriptive-evaluative method of research had been aptly utilized in this quest for solution. It delineated the effects of MTB-MLE to Grade III pupils’ performance in Math and Science as perceived by their teachers, problems encountered in using LM’s, TG’s and Instructional Materials, and suggested measures to address the prevailing problems after evaluating through researcher-made questionnaire. An observation and unstructured interview were deemed invaluable to enrich the study. The findings indicate that MTB-MLE has relevance to Grade III pupils’ performance in Mathematics and Science due to limited vocabulary words which hinder the pupils to cope with the lesson. Problems such as Teachers’ Guide and Learners’ Manual inconsistency, limited number of LM’s, lack of time in the preparation of localized instructional material and suggested measures to address the extant problems are likewise accentuated in this research.

Keywords: MTB-MLE, Teachers’ Perspective, Science, Mathematics, LM’s, TG’s

I. INTRODUCTION

Pursuant to Section 16 of Republic Act No. 10533, entitled “An Act Enhancing the Philippine Basic Education System by Strengthening Its Curriculum and Increasing the Number of Years for Basic Education, Appropriating Funds therefor and for Other Purposes,” otherwise known as the “Enhanced Basic Education Act of 2013,” [1]. In view of this above Act, the Department of Education (DepEd), the Commission on Higher Education (CHED), and the Technical Education and Skills Development Authority (TESDA) issued rules and regulations to implement the provisions of the Act.

Students are able to learn best through their first language, their Mother Tongue (MT). Twelve languages have been introduced for SY 2012-2013: Bahasa Sug, Bikol, Cebuano, Chabacano, Hiligaynon, Iloko, Kapampangan, Maguindanoan, Maranao, Pangasinense, Tagalog and Waray. It is expected that other local languages will be added in the succeeding school years. Aside from the Mother Tongue, English and Filipino are taught as subjects starting Grade 1, with a focus on oral fluency. From Grades 4 to 6, English and Filipino are gradually introduced as languages of instruction in Junior High School (JHS) and Senior High School (SHS).

The K-12 curriculum shall develop proficiency in Filipino and English, provided that the first and dominant language of the learners shall serve as the fundamental language of education. For Kindergarten and first three years of elementary education, instruction, teaching materials and assessment shall be in regional or native language of learners. DepEd shall formulate a mother language transition program the mother/first language to the subsequent languages of the curriculum that is appropriate to the language capacity and needs of learners from Grade 4 to Grade 6. Consequently, Filipino and English shall be gradually introduced as languages and can become the primary languages of instruction at the secondary level.

In addition, the curriculum shall adhere to the principles and framework of Mother Tongue – Based Multilingual Education (MTB-MLE) which starts from where the learners are and from what they already know proceeding from the known to the unknown; instructional materials and capable teachers to implement the MTB-MLE curriculum shall be available. For this purpose, MTB-MLE refers to formal or non-formal education in which in the classroom the learner’s mother tongue and additional languages are used in the classroom (Fishman) [2]. Mother tongue-based bilingual programs use the learner’s first language, known as the L1, to teach beginning reading and writing skills along with academic content. The second or foreign language, known as the L2, should be taught systematically so that learners can gradually transfer skills from the familiar language to the unfamiliar one. Bilingual models and practices vary as do their results, but what they have in common is their use of the mother tongue at least in early years so that students can acquire and develop literacy skills in addition to understanding and participating in the classroom. Bilingual as opposed to monolingual schooling offers significant pedagogical advantages which have been reported consistently in the academic literature (Cummins) [3].

Indeed, according to Mr. Alex L. Gumba Head [9] Teacher of Marinas I Elementary School and based on division conferences and meetings of Sorsogon City School Heads, almost 100% of the School Heads had common issues with regards to the inclusion of MTB-MLE as a subject and as a medium of instruction. School

heads believed that MTB as a subject and as a medium was related to the decline of academic performance of pupils.

The efficacy of implementation MTB-MLE in the primary level is yet to be seen if they become triumphant graduates perhaps in the making. However, if in the process of its implementation there are existing perennial and unsolved issues, obviously, the program is likely to fail.

II. Review of Related Literature

For this study, the researcher included some related studies and researches to able to provide ample ideas for the readers and be able to enrich this endeavor. However, the most related ones were included.

In addition, (Abdulaziz) [4] states that the use of a familiar language to teach beginning literacy facilitates an understanding of sound-symbol or meaning-symbol correspondence. Learning to read is most efficient when students know the language and can employ psycholinguistic strategies. Likewise, students can communicate through writing as soon as they understand the rules of orthographic (or other written) system of their language. In contrast, submersion programs may succeed in teaching students to decode words in the L2, but it can take years before they discover meaning in what they are reading.

Adae [5] stresses that since content area instruction is provided in the L1, the learning of new concepts is not postponed until children become competent in the L2. Unlike submersion teaching, which is often characterized by lecture and rote response, bilingual instruction allows teachers and students to interact naturally and negotiate meanings together, creating participatory learning environments that are conducive to cognitive as well as linguistic development.

Adagbija [6] emphasizes, however, that explicit teaching of L2 beginning with oral skills allows students to learn the new language through communication rather than memorization. In submersion schooling teachers are often forced to translate or code-switch to convey meaning, making concept learning, while bilingual programs allow for systematic teaching of L2.

Similarly, the view of Adagbija [6] was agreed by Cummins [3] which implies that once students have basic literacy skills in L1 and communicative skills in the L2, they can begin reading and writing in the L2, they can begin reading and writing in the L2, efficiently transferring the literacy skills they have acquired in the familiar language.

The pedagogical principles behind this positive transfer of skills are Cummins' interdependence theory and the concept of common underlying proficiency, whereby the knowledge of language literacy and concepts learned in the L1 can be accessed and used in the second language once oral L2 skills are developed, and no re-learning is required.

Consistent with these principles, it is possible for children schooled only in the L2 to transfer their knowledge and skills to the L1, but the process is highly inefficient as well as being unnecessarily difficult. Student learning can be accurately assessed in bilingual classrooms. When students can express themselves, teachers can diagnose what has been learned and what remains to advantages and significance of using Mother Tongue in teaching learning process.

In the Philippines, one of the changes in Basic Education Curriculum brought by the K-12 program is the introduction of Mother Tongue- Based Multilingual Education (MTB-MLE) specifically in Kindergarten, Grades 1, 2 and 3 to support the goal of "Every Child – A Reader- and – A- Writer" by Grade 1. Furthermore, mother tongue is used as a Medium of Instruction (MOI) for Grades 1, 2 and 3 in teaching Math, Araling Panlipunan (AP), Music, Arts, Physical Education and Health (MAPEH) and Edukasyon sa Pagpapakatao (EsP). Mother Tongue is taught as a separate Learning Area in Grade 1 and 2 (DepEd Order # 31) [7].

The foregoing DepEd Order stipulates that the use of same language spoken at home, in early grades, helps improve the pupils' language and cognitive development in addition to strengthening their socio-cultural awareness. Local and international studies have shown that early use of mother tongue inside the classroom produce better and fast learners.

In the study by Lartec et. al [8] of Saint Louis University, Baguio City, Philippines, it was found out that the use of Mother Tongue in teaching multilingual setting affects the way pupils learn. The foregoing researchers also stated that, absence of books written in mother

tongue, lack of vocabulary and lack of training for teachers were but among problems encountered by the teachers.

The literature and studies presented served as the bases of the researcher to conduct further studies on the use of Mother Tongue in the teaching-learning process.

III. Research Objectives

This academic piece of work aimed to determine the effects of MTB-MLE to Grade III pupils' performance in Math and Science, problems encountered in using LM's, TG's and Instructional Materials, and intervention plans to address the prevailing problems.

Specifically, it envisioned to provide solutions to the following questions:

1. What are the effects of MTB-MLE to Grade 3 pupils' performance in Math and Science?
2. What are the problems encountered by Grade III teachers in terms of :
 - a. Teachers' Guide
 - b. Learners' Manual
 - c. Instructional Materials
3. What interventions can be proposed to address the identified problems?

IV. Scope and Limitations

This action research focused on determining the effects of MTB-MLE to Grade III pupils' performance in Math and Science, problems encountered in using LM's, TG's and Instructional Materials, and intervention plans to address the prevailing problems. Thus, Kinder, Grades 1 & 2 teachers were not included as respondents of this endeavor. Intermediate teachers in the City Division of Sorsogon although teaching Science and Mathematics were also excluded in this research because intermediate levels use English as a medium of instruction in teaching Science and Mathematics.

V. Research Methodology

The descriptive-evaluative method of research was utilized in this quest for solution. It is descriptive-evaluative insofar as it described the effects of MTB-MLE to Grade III pupils' performance in Math and Science, problems encountered in using LM's, TG's and Instructional Materials, and intervention plans to address the prevailing problems after evaluating through a researcher-made questionnaire.

An observation was likewise done to the subjects of the study upon distribution of questionnaire to enrich the study.

a. The Sampling

The primary sources of data were the Grade III teachers representing at least 90% of the schools per district to ensure high reliability of the research work. These schools could be central, big and small schools chosen randomly thru fish bowl technique.

Table I

The Respondents

SCHOOL	No. of Teacher Respondents
Sorsogon East District	11
Sorsogon West District	19
Bacon West District	16
Bacon East District	13
	$\Sigma = 59$

b. The Data Collection

Approval of the Schools Division Superintendent was sought prior to the distribution of questionnaires. Thereafter, the researcher personally distributed the questionnaires to the respondents. Classmates and friends of the researcher were also instrumental in the retrieval of accomplished questionnaires. An unstructured interview was also done upon retrieval to supplement the necessary data. Furthermore, pertinent data and information which could enhance this endeavor were gathered from other sources such as school heads, teachers, former professors, colleagues and co – teachers.

c. The Ethical Issues

This action research was undertaken in response to the DepEd's call for research intensification and also systematically finding answers to the challenges encountered by teachers the implementation of K to 12 curriculum specifically in MTB-MLE.

In the process of research, the data and information that were taken from the respondents had been treated with utmost confidentiality and anonymity.

d. The Data Analysis

The quantitative method of analyzing data was utilized in this research. This involves frequency counts and percentage to determine the most common answers to the foregoing questions. Ranking was likewise employed to determine the measure that will be proposed as an output of the study to address the prevailing problems. Tabular presentations helped to accurately show the outcome of this piece of work. Moreover, related literatures and studies could be used to support the findings of the research.

VI. RESULTS AND DISCUSSIONS

The table 2.a depicts the effects of MTB-MLE in the teaching and learning process specifically in Science and Mathematics. These subjects use Mother Tongue as a medium of instruction in observance to the battery of

DepEd memoranda stipulating so. One of the chief reasons attributed to the low performance of pupils is the limited vocabulary which hinder in the teaching - learning process. The respondents claim that since pupils are less-exposed to English language, it affects the academic performance of the pupils in Science and Mathematics. The foregoing claim was confirmed during unstructured interview and class observations of the researchers. The pupils are confused with basic mathematical concepts which hinder them to cope with the lesson. This is in relation with the findings of Lartec et. al [8] of Saint Louis University, Baguio City, Philippines, it was found out that the use of Mother Tongue in teaching multilingual setting affects the way pupils learn. The foregoing researchers also stated that, absence of books written in mother tongue, lack of vocabulary and lack of training for teachers were but among problems encountered by the teachers.

Presented also in the table is the good effect of using Mother Tongue during class discussions where pupils actively participate to the extent that they somehow understand what the teachers are saying and asking them. Be that as it may, the active participation of the pupils has not been converted to scores and excellent performance during evaluations and quarter examinations. This is confirmed by one of the statements of the respondent “*nakasimbag man sir talaga an mga batit pag bikol an gamit, pero sa kabuuan na performance ninda poor man gihapun*”. This implies that pupils can answer questions in Mother Tongue, however, there over-all performance is still low. This perhaps is due to some English terms in Mathematics and Science which do not have equivalent translation in Mother Tongue.

The table also presents the astonishing claims of some respondents which represent the marginal population of the teachers. One of which, is the claim that pupils easily learn and understand mathematical and science concepts because of Mother Tongue as a medium of instruction. Another is the notable increase in the pupils’ academic performance which somehow negates the previous claim of the majority of the respondents. These, as for the researcher, could be attributed to several factors such as the school location, school population, and groupings/sectioning since respondents are chosen randomly.

Table 2.a Effects of the MTB-MLE to Grade 3 pupils’ performance in Math and Science

EFFECTS OF MTB-MLE IN MATH AND SCIENCE		
	f	p (%)
1. There is a notable increase in the pupils’ performance in Math and Science. This is evident during post activities and evaluation.	25	42.37
2. Pupils actively participate during class discussions and enrichment activities.	40	67.80
3. Pupils easily understand mathematical and science concepts because of the Mother Tongue as a medium of instruction	27	45.76
4. Vocabulary words are enhanced and are refined automatically as the lesson progresses which help students to cope with the above-stated subjects.	30	50.85
5. There is a notable decrease in the pupils’ performance in Math and Science. This is evident during post activities and evaluation.	46	77.97
6. Pupils do not actively participate during class discussions and enrichment activities.	29	49.15
7. Pupils do not easily understand mathematical and science concepts because of the Mother Tongue as a medium of instruction	45	76.27
8. Vocabulary words are limited which hinder the pupils to cope with the above-stated subjects.	47	79.66

The perspective of the marginal number of respondents somehow relates to the idea of Fishman [10] who posited that students were able to learn best through their first language, their Mother Tongue (MT). Twelve languages have been introduced for

SY 2012-2013: Bahasa Sug, Bikol, Cebuano, Chabacano, Hiligaynon, Iloko, Kapampangan, Maguindanoan, Maranao, Pangasinense, Tagalog and Waray. It is expected that other local languages will be added in the succeeding school years.

Table 2.b highlights the problems of Grade III teachers in using LM’s & TG’s specifically in Science and Mathematics. It can be noted that the top most problem encountered is the incomplete content of LM’s & TG’s in terms of competencies or objectives. Consequently, teachers resort to other references in order to supplement the said teaching material. Looking for other references somehow steals the supposedly allotted time for teaching - learning process according to the respondents.

The second most encountered problem has to do with the most important part of the lesson and a determining part of the lesson whether pupils has learned something or none, the evaluation. Constructing

evaluations as for the Grade III teachers pose a problem insofar as it leads to incongruity between the objectives and the evaluation itself. This statement is supported by one of the findings of Supervisors and PSDS's during the usual rounds and class observations.

Table 2.b. Problems encountered by Grade 3 teachers on MTB-MLE in terms of LM's TG's

PROBLEMS ENCOUNTERED ON LM's &TG'S	f	p(%)
1. Teachers' Guide do not match with Learners' Manual in terms of page, stories and selections.	31	52.54
2. Teachers' Guide are incomplete in terms of content and/or competencies	50	84.75
3. Teachers' Guide are not suited to the level of learners because of the incomprehensible selections	28	47.46
4. There are objectives in Teachers' Guide which are not found in Curriculum Guide.	30	50.85
5. There are Teachers' Guide which do not have evaluations.	48	81.36
6. Teachers need to translate the selections to L1 word for word to let the pupils understand and deduce.	43	72.88

The foregoing table also implies that respondents need to translate the selections in TG written in English to Mother Tongue in order to let the pupils understand and eventually deduce the meaning. This is in line with the idea of Kavaliaskiene [10] who posits that translation is very beneficial to learning when it comes to learning through the use of students' Mother tongue because it serves as a bridge to connect students to the lesson. Translation is sometimes referred to as the fifth language skill alongside the other four basic skills of listening, speaking, reading and writing.

Furthermore, respondents also state that there is a mismatch between TG's and LM's in terms of selections and pages. This mismatch forced Grade III teachers to get selections to other references tantamount to getting a piecemeal of everything under the sun. They tend not to follow the Teachers' Guide which, in effect, ought to guide them in the duration of the lesson.

Table 2.c. Problems encountered on Instructional Materials

PROBLEMS ENCOUNTERED ON INSTRUCTIONAL MATERIALS	f	p(%)
1. Limited number of instructional materials are given	30	50.85
2. The teacher makes localized instructional materials to suit to the level of pupils	39	66.10
3. Lack of time in the preparation of instructional materials	53	89.83
4. The teacher does not have the materials prescribed in the activities	47	79.66

Instructional materials are the basic channel of communication in the classroom for the purpose of bringing about effective teaching and learning. In fact, according to Sunday et. al., [11], instructional materials are entertaining at the same time educational and can cater to the different senses. This is one way of motivating the class to participate during the discussion. IM's are vital to the teaching - learning process.

The above table shows the issues and concerns relative to instructional material utilization, development and preparation. It is noteworthy that majority of the respondents lack time in the preparation of instructional materials. These IM's are not solely those traditionally written manila paper/*cartolina* but most importantly science/mathematics modules that are written indeed in Mother Tongue (Bicol Sorsogon) to be able to establish connections to the pupils since the distributed LM's are regional dialect (Bicol Naga). This stand seems to link with the view of Malone [12] who states that in implementing MTB-MLE, goals are not being attained if there is deficiency of materials needed; hence, there is a need for the provision of the books and instructional materials that are helpful to the learning of pupils which will increase their understanding. Malone additionally stresses that literacy can only be maintained if there is an adequate supply of reading materials.

Stated also in the table that Grade III teachers do not have the prescribed materials in suggested activities found in LM's and TG's. There are also limited number instructional materials given to the field which add to their stockpile of multifarious dilemma. These responses are parallel to the statement of Dutcher [13], that is, no teacher can teach effectively without materials that are based on two components: established government curriculum goals and pupils' prior knowledge, culture and value systems.

Similar perspective is implied by Dekker et al. [14] who posit that with limited books or LM's available for most of the 170 languages of the Philippines, materials development appears a daunting task. Books are one of the most needed materials in the learning process of the pupils. Teaching and learning cannot be effective without adequate and relevant use of instructional materials. Many respondents forcefully mean that if the

government is to achieve the long yearned quality education, then by all means, provide them ample IM's and trendy facilities plus supportive stakeholders, they too will provide their fair share of molding our clientele.

Table 3. Suggested interventions to address the identified problems

SUGGESTED INTERVENTIONS	f	rank
1. Teach Mother Tongue as a subject but not as a medium of instruction	39	3
2. Revise the LM's and TG's	31	4
3. Provide ample instructional materials	47	1
4. English language must be used as a medium of instruction in teaching Mathematics and Science	30	5
5. Curriculum writers must at least represent each school especially Mother Tongue	43	2
6. Seminar in Bilingual Education must be conducted, monitored and enhanced.	25	6
7. A proposal must be crafted on the use of Mother Tongue as a subject and not as a medium of instruction (MOI)	22	7

Table 3 displays the suggested interventions so as to solve the extant problems relative to MTB-MLE in Grade III. Of the seven (7) suggested interventions, the respondents stated that they ought to be given ample instructional materials which are parallel to TG's and LM's in order for them to have quality time in contact with the pupils. The provision of ample IM's will possibly redound in an increase of academic performance of pupils in Mathematics and Science. This suggested intervention is in line with view of Malone [12] who states that in implementing MTB-MLE, goals are not being attained if there is deficiency of materials needed; hence, there is a need for the provision of the books and instructional materials that are helpful to the learning of pupils which will increase their understanding. Malone additionally stresses that literacy can only be maintained if there is an adequate supply of reading materials. Similar perspective is given by materials in the learning process of the pupils. Teaching and learning cannot be effective without adequate and relevant use of instructional materials. Many respondents forcefully mean that if the government is to achieve the long yearned quality education, then by all means, provide them ample IM's and trendy facilities plus supportive stakeholders, they too will provide their fair share of molding our clientele.

Similar opinion is aired by Dekker et al. [14] who posit that with limited books or LM's available for most of the 170 languages of the Philippines, materials development appears a daunting task. Books are one of the most needed materials in the learning process of the pupils. Teaching and learning cannot be effective without adequate and relevant use of instructional materials.

Reflected in the foregoing table too is the willingness of the Grade III teachers to teach Mother Tongue since they are in the system so they must religiously follow as ordered. However, they suggested that, in one way or another, curriculum writers/IM's/TG's must represent each division so as to avoid translation and localization of teaching materials. Another suggestion given by the respondents is to teach Mother Tongue as subject but not as medium of instruction. They categorically stated that using Mother Tongue as medium of instructions in teaching Mathematics and Science is the culprit behind the poor comprehension and low vocabulary as they are not that exposed to the foreign language. The statement of the respondents supports the principle of Language immersion, or simply immersion. This is a technique used in bilingual language education in which two languages are used for instruction in a variety of topics, including math, science, or social studies. The languages used for instruction are referred to as the L1 and the L2 for each student, with L1 being the native language of the student and L2 being the second language to be acquired through immersion programs and techniques. There are different contexts for language immersion, such as age of students, class time spent in the L2, subjects taught, and the level of participation by the native L1 speakers.

Although programs differ by country and context, most language immersion programs have the overall goal of promoting bilingualism between the two different sets of language speakers. In many cases, biculturalism is also a goal for speakers of the majority language (i.e. the language spoken by the majority of the surrounding population) and the minority language (i.e. the language that is not the majority language). Research has shown that these forms of bilingual education provide students with overall greater language comprehension and preservation of the L2 in a native-like manner; in addition to, greater exposure to other cultures and the preservation of languages, particularly heritage languages (https://en.wikipedia.org/wiki/Language_immersion) [15].

Another suggestion has to do with the revisiting of TG's and LM's. This will ensure the parallelism of the foregoing materials and will save precious time looking for other references.

Surprisingly, the minimal number of respondents suggested that English must be used in teaching Science

and Mathematics in order to immerse the pupils to the English language and be able to eventually improve their vocabulary prowess. Another point of view is the mismatch of language during competitions. The pupils are taught in Mother Tongue, however, when higher competitions come, the medium of instruction used in English. This lags behind the public schools during academic contests.

VII. CONCLUSION AND RECOMMENDATION

Based on the findings of the study, the following conclusions were drawn: (1) There are effects of MTB-MLE to Grade III pupils' performance in Mathematics and Science; (2) There are problems encountered by Grade III in using Teacher's Guide in the teaching – learning process; (3) There are also problems met by teacher in using the Teachers' Manual; (4) The Grade III teachers lack time in the preparation of instructional materials to suit to the level of pupils; (5) Provision of ample instructional materials, curriculum writers must represent each district and MTB should be taught as a subject and not as a medium of instruction are essential measures for consideration.

In the light of the findings, the following recommendations are given: (1) Contextualization of Learners' Materials in Bicol Sorsogon; (2) Teachers Guide must be in 1:1 ratio; (3) Team teaching in Grade III class must be allowed; (4) Revisions of Teaching Guides and Learners' Materials; (5) Localized Instructional Materials shall be highly encouraged; (6) Utilization of English as a

medium of instruction in teaching Mathematics and Science; (7) Close monitoring of MTB-MLE of Grade III pupils be done to be able to come – up with reliable feedbacks for consideration; (8) In found helpful, the outcome of this study may be disseminated to increase awareness thereby improve pupils' academic performance division wide; (9) An ex post facto study on the effects of Mother Tongue as medium of instruction to other subjects be conducted.

VIII. References

- [1] Republic Act 10533 (2013). Congress of the Philippines. Retrieved September 2016 from www.gov.ph/2013/05/15/republic-act-no-10533.html
- [2] Fishman, A. (1991). Parent and Teacher Opinions of Bilingual Education : Comparison and Contrasts. The National Association for Bilingual Education Journal, 9 (1), 41-51.
- [3] Cummins, J. (2000). The Language Situation in the Philippines : Facts and Prospects. Philippine Journal of Education, 46 (6), 412-470.
- [4] Abdulaziz, R. (2003) Starting Where the Children are: A collection of Essays on Mother Tongue based Multilingual Education Education and Language Issues in the Philippines.
- [5] Aday, J. (2000). Enhancing Learning of Children from diverse language backgrounds : Mother Tongue – Based Bilingual or Multilingual Education in Early Childhood and Early Primary School Years. Paper Commissioned by UNESCO Basic Education Division, Paris.
- [6] Adagbija, F. N. (2003) Policy and Experiment in Mother Tongue Literacy in Nigeria. International Review of Education, 39 (4), 255- 285.
- [7] DepEd Order # 31 s. 201. Guidelines on the use of MTB-MLE in Teaching in teaching Math, Araling Panlipunan (AP), Music, Arts, Physical Education and Health (MAPEH) and Edukasyon sa Pagpapakatao (EsP).
- [8] Lartec, et.al., (2014). Strategies and Problems Encountered by Teachers in Implementing Mother Tongue – Based Instruction in Multilingual Classroom, Baguio City, Philippines.
- [9] Gumba, Alex L., *Personal Interview, Spentember 5, 2016.*
- [10] Kavaliaskiene, G. (2009). Role of mother-tongue in learning English for specific purposes. ESP World, Issue 1 (22).
- [11] Sunday, A., & Joshua, A., (2010) Assessment of resources and instructional materials status in the teaching of mathematics in South Western Nigeria.
- [12] Malone, S. (2007). Mother tongue- based multilingual education: Implications for education policy. SIL International.
- [13] Dutcher, N. (2004). Promise and perils of mother tongue education. Center for Applied Linguistics, Washington, DC. USA
- [14] Dekker, D. et al., (2008). Initial results of Lugbuanan project. Paper presented to the First MLE Conference on February 18-20, 2001 at Cagayan De Oro, Mindanao.
- [15] https://en.wikipedia.org/wiki/Language_immersion.