

- > Mother Tongue-Based Multilingual Education
- , Improved Academic Achievement
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The paper outlines the rationale for introducing mother tongue based multilingual education (MTB-MLE) in multilingual societies, some of the common obstacles to MTB-MLE implementation and how they can be overcome. The paper then goes on to consider the situation in Papua and outlines step for fostering greater use of mother tongues as the language of instruction in schools.

Many countries have bilingual or multilingual societies, and more than 20 states have more than one national language. However, the majority of countries are monolingual nationstates, meaning that they have established one language to be used for government and legal purposes.

Indonesia is reported as having 742 languages spoken within its borders, making it the 26th most linguistically diverse nation in the world. The choice of Bahasa Indonesia as the national language was first proposed at the Second Indonesian Youth Conference in 1928 and Bahasa Indonesia was officially recognised as the national language in 1945 Constitution. While Indonesian is taught in all schools and English is part of the standard curriculum, the use of major languages such as Javanese, Balinese and Sundanese and over 700 other minority languages varies from region to region.

Contemporary patterns of global communication and immigration have made multilingual education programmes a way of allowing children to experience their rich multilingual backgrounds as an advantage and as a means of thriving in a multilingual world. Giving children proficiency in the language spoken in their homes (L1) as well as the language spoken by the larger community (L2, L3, L4, etc.) can benefit individuals and society by increasing cognitive skills, humanistic understanding, achievement, economic benefits, linguistic ability, social skills and political cooperation between groups.²

Having access to learning in more than one language also allows individuals to use different languages for different functions. For example, literacy in national and/or international languages often opens doors to the world of work and facilitates mutual intelligibility between the local support the strengthening of ethnic communities as well as

the pursuit of ethnic continuity.3 In other words, the early 20th century view that monolingual people perform better than bilingual and multilingual people is being increasingly accepted as erroneous.

Students whose mother tongue language is different than the national language are often at a considerable disadvantage in the education system⁴ (see also **Box 1**). This is especially true for children living in remote areas. The farther away a child lives from urban areas, the less Bahasa Indonesian he or she uses. Children in Maluku, for example, only understand Bahasa Indonesian passively if they understand it at all.⁵ In addition, while monolingual education systems are often adopted in states with cultural and linguistic diversity, histories of ethnic rivalries or social conflict with the intention of promoting national unity, they can also add to a widespread, grassroots anxiety about the status of endangered and minority languages.⁶ Such anxiety has become apparent enough in UNESCO member countries to prompt UNESCO to promote initiatives such as 'World Mother Tongue Day' and 'International year of Languages' to change public perception about the importance of languages.7

> Indonesia is reported as having **742** languages spoken within its borders, making it the **26**th most linguistically diverse nation in the world.

context and the "outside world" politically and culturally. In turn, mother tongue literacy can foster cultural identity and

Musgrave, Simon. Language Shift and Language Maintenance in Indonesia. Monash University.

Crystal, David. 2011.

Fishman, Joshua A. Ethnocultural Dimensions in the Acquisition and Retention of Biliteracy.

Malone, Susan. 2007. Mother Tongue-Based Multilingual Education: Implications for Education Policy. SIL International. Presented at the Seminar on Education Policy and the Right to Education: Towards More Equitable Outcomes for South Asia's Children, 17-20 September 2007.

Sulinama Foundation, 2014. "Ambon-Malay based Early Childhood Education: Towards mother-tongue based multilingual education: A progress report from Maluku." Presentation at SEAMEO QITEP Conference Jakarta 23-26 September 2014. SIL Ambon.

Shaeffer, Sheldon. 2014. "Language Diversity and Mother Tongue Policies in Education." Presentation at the Seminar on the Use of Mother Tongue/Local Language to Improve Elementary Students'

Competence. SEAMEO QITEP in Language. 23-26 September 2014. *Crystal, David. 2011. From the World to the Word-and Back Again.* Plenary lecture given to the CILT Primary Languages Show, 'From the Word to the World', Liverpool, 4 March 2011.

Box 1: The Case for Instruction in the Mother Tongue

Source: Professor Joseph Lo Bianco, 2014. Professor of Language and Literacy Education at the Melbourne Graduate School of Education, University of Melbourne, Australia.

"We need to see that literacy grows out of the general learning that children have already done. Children don't start learning the minute they enter the classroom; they start learning from the moment they're born.

When you're born you're learning with your parents, your siblings, the other people involved in your life. And so you're basically at the focus point of a large community of people who informally are your teachers. So you're learning your social life, your conceptual development, your place in the world. And how to control other people's behavior towards you by mastering language, because language is the tool we use for all of those things.

We think, in educational circles, of language mainly as a cognitive tool. But language is much more than that. It is a cognitive tool - the most extensive and complex one we have. But it is also the tool we use to make our presence felt in the world, to get our desires expressed and met. And children, as they acquire that, are doing it in their mother tongue.

We can't expect that when they go to school there will be this instantaneous transition over to another medium of exchange for all of this really important information they encounter at school."

Although there are obvious advantages in having a multilingual society and education system, choosing the language to use in education remains a highly contentious topic. Official policy in Indonesia recognizes the right of different language groups to maintain their languages. However, the large ethnolinguistic communities in western Indonesia have been more successful in accessing resources and institutional support than smaller linguistic communities in the east. While Bali and Java have devoted a significant amount of time in the curriculum to ensuring mother tongue literacy, the 275 smaller linguistic communities in Papua face various challenges including gaining community support, accessing resources and improving teacher training. Although Bahasa Indonesian is used as the language of instruction, in provinces like Papua the government has enacted policy to accommodate the needs children from rural and remote areas. Regional Regulation of Papua No. 3 Article 22:2 is one such example stating, "If Bahasa Indonesia cannot be used as the introductory language in delivering education, the local language can be used as the introductory language."10

Interview with Dr. Myra Harrison, Director Education Resources Facility, Government of Australia, 2014. http://auserf.com.au/infocus/language-and-literacy-2/

» Mother Tongue-Based Multilingual Education

A large body of evidence from different countries as well as advances in the field of cognitive neuroscience show that children who have access to mother tongue based multilingual education (MTB MLE) develop better language skills in their mother tongues as well as national languages. When knowledge of a second language (L2) is added to a rich knowledge of a first language (L1), a child forms complex knowledge networks (additive bilingualism).

In contrast, teaching basic skills to young children in a foreign language through language immersion is shown to even be detrimental in some cases.¹¹ Children who have limited vocabulary in their first language will not benefit as thoroughly from bi/multilingual instruction and will use elements of the second language to replace the first (subtractive bilingualism).¹²

There is no "one-size-fits-all" method for integrating multiple languages into an education system (see *Figure 1*). In some countries, students learn in the official language in higher grades while studying in their mother tongue in lower primary grades. In other countries, logistical and political complexities pose a challenge to the implementation of MTB MLE, and students are immersed in the official language from the beginning and during all grades.

ACDP. 2014. Rural and Remote Area Education Strategic Planning for Tanah Papua

Local Office of Education, Youth and Sport, Papua Province. 2013.

Regional Regulation of Papua No. 3.

Abadzi. 2006.

Ganschow, L., R.L. Sparks, and J. Javorsky. 1998. "Foreign Language Learning Difficulties: An Historical Perspective." Journal of Learning Disabilities 31(3): 248-58.

Figure 1: Language Instruction in Education Systems ¹³

Mother Tongue-Based Instruction	The learning programme is delivered entirely in children's L1
Bilingual Education	Two languages are used as the media of instruction. This type of instruction is also known as 'dual language instruction' in which children who speak both the minority and majority language are taught in both majority and minority languages.
Mother Tongue-Based Bilingual Education	L1 is used as the primary medium of instruction during all of primary school. Then, L2 is introduced as a subject of study to prepare children for eventual transition to using L2 as the medium of learning in some academic classes.
Multilingual Education	Formal use of more than two languages in the curriculum.
Transitional Bi/Multilingual Education, or 'Bridging'	This type of instruction is aimed at planning a transition for children to move from learning in L1 to learning in L2. Such transition can be done abruptly after a few years or after a longer period during which the child has become fully fluent academically in his/her L1.
Maintenance Bi/Multilingual Education	Even after L2 has been introduced, children are instructed in L1 and L2. L1 continues, often as a subject of study, to ensure ongoing support for children to become academically proficient in L1. This is also called 'additive bilingual education' because one or more languages are added but do not displace L1.
Immersion or Foreign Language Instruction	The entire education programme is provided in a language that is new to the child.
Submersion	Speakers of non-dominant languages have no choice but to receive education in a language they do not understand. The approach promotes subtractive bilingualism, i.e., learning L2 at the expense of L1.

» Improved Academic Achievement

Bi/multilingual students often develop stronger academic abilities than similar students in monolingual schools. An evaluation of mother tongue instruction in northwest Cameroon reveals that first grade children taught in their mother tongue, Kom, perform significantly better across a range of subjects, including English and maths, than those taught solely in English. Similarly, third grade students at bilingual schools in Mali perform better on assessments of French language skills than those taught exclusively in French despite only starting to learn French in second grade. Malians who are given bilingual instruction continue to outperform those given monolingual instruction at the end of primary school. These children also demonstrate stronger skills in mathematics. Students in the USA receiving instruction in a mother tongue (for example, in Spanish) and English at

different times of the day made dramatic gains in reading performance compared to their English-only peers.¹⁷

Beneficiaries of bilingual education projects in Guatemala, in addition to outperforming similar students in monolingual schools on 7 out of 10 measures of academic achievement, have a far better grasp of their Mayan mother tongues. Significant improvements in achievement have also been observed amongst students of bilingual education in the Philippines (see *Box 2* below).

» Increased Efficiency

Children who struggle to understand lessons in an unfamiliar language are more likely to skip school, repeat grades, drop out and fail to learn than those taught in their mother tongue.

This is supported by an analysis of the educational attendance patterns of children in 153 linguistic groups across 23 countries, which finds instruction in mother tongue to be correlated with higher school enrolment and attendance. The

Source: Ball, Jessica. 2011. Mother Tongue-Based Bilingual or Multilingual Education in the Early Years. UNESCO

Pflespsen, A. 2011. Improving Learning Outcomes through Mother Tongue-Based Education. North Carolina, USA. RTI International.

UNESCO. 2011. Enhancing Learning of Children from Diverse Backgrounds. Mother Tongue-Based Bilingual or Multilingual Education in the Early Years. Paris, France. UNESCO.

UNESCO. 2008a. Mother Tongue Matters: Local Language as a Key to Effective Learning. Paris, France. UNESCO.

¹⁷ Abadzi, H. 2006.

Dutcher, N. 2003. Promise and Perils of Mother Tongue Education.Washington, DC: Center for Applied Linguistics

study concludes that if mother-tongue instruction is available at half or more of the schools attended by members of a linguistic group, the percentage of out-of-school children in that group is about 10% lower compared to groups for which mother-tongue instruction is not available or is only available in a smaller proportion of schools.¹⁹ Another study finds that Malian students instructed in their mother tongues are five times less likely to repeat a grade and three times less likely to drop out than those instructed in a second language.²⁰

Box 2: Philippines

Source: Department of Education, Republic of the Philippines. 2012. Department of Education Order No. 31, 2012; Walter, S. and D. Dekker. 2008. The Lubuagan Mother Tongue Education Experiment.

In 2012, the Philippine government introduced the use of mother tongues as the language of instruction in schools, reversing a long-held policy of using only the national languages, English and Filipino. Since 2012, students acquire emerging literacy and numeracy skills in their mother tongues with the national languages taught as subjects in the first three grades, transitioning to instruction in English and Filipino from grade 4 onwards. The change in policy came after a 10-year experiment in the use of mother tongues in classrooms in the district of Lubuagan which produced promising results. Children taking part in the Lubuagan MTB-MLE project, known as the First Language Component (FLC), received instruction in their first language for the first three years of school. During this period, they also received instruction in oral English and oral Filipino as preparation for learning to speak and read in these languages. After three years, children taking part in FLC merged with others who have received instruction in the national languages into classrooms where English is the primary language of instruction. Standardised tests showed that by grade 3 FLC participants significantly outperformed their peers in control schools in a range of academic subjects, including the national languages. For example, FLC students in the 2007-2008 cohort scored an average of more than 75% on a standardized test of knowledge and skills in mathematics, while students in comparator monolingual schools scored just 50% on average. Similar differences were found in the results of tests of reading, English and Filipino.

By reducing dropout and grade repetition, mother tongue-based multilingual education can also be more cost-effective in the medium and long run than monolingual alternatives. A World Bank study in Mali has found that mother tongue-based programmes cost 27% less over the 6-year primary cycle than programmes taught exclusively in French, largely because of reduced drop out and repetition. Similarly, a sixth-grade graduate of a bilingual programme in Guatemala has been found to be nearly 10% less costly to produce than a graduate of a comparable monolingual school. Evaluations suggest that covering the costs of providing mother-tongue instruction requires an initial increase of between 1-5% in a country's education budget, but that the resulting improvement in internal efficiency would greatly reduce the cost of the education system in the long run.

» Socio-cultural Benefits

Historical incursions associated with colonialism as well as a host of contemporary political, economic and social processes have endangered many of the world's languages and cultures.²⁵ Encouraging and supporting parents in teaching their infants and young children the local language in the home, and delivering early childhood education programmes and formal education systems in the children's mother tongue can ensure the transmission of a community's linguistic heritage and prevent this cultural and linguistic loss.

In supporting diverse communities to conserve their languages and culture, MTB-MLE programmes, such as that implemented in Thailand (see **Box 3**), have been found to promote greater social cohesion, rather than the disintegration feared by proponents of monolingual education.

Parents are also more likely to communicate with teachers, participate in children's learning and become involved in what goes on in the classroom when they feel their knowledge and culture are valued. ²⁶ As evident in the case of Guatemala, the

Smits, J., J. Huisman and K. Kruijff. 2008. Home Language and Education in the Developing World. Background paper prepared for the Education for All Global Monitoring Report 2009.

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UNESCO. 2008. Mother Tongue Instruction in Early Childhood Education: A Selected Bibliography. Paris: UNESCO.

Benson, C. 2002. Real and Potential Benefits of Bilingual Programmes in Developing Countries. International Journal of Bilingual Education and Bilingualism, 5 (6), 303-317.

Box 3: Thailand's Deep South and the Patani Malay-Thai Bilingual/Multilingual Education Project, 2014Source: UNESCO, 2014 Effective Literacy Programmes: Pattani Malay-Thai Bilingual/Multilingual Education

Thailand's government established a primarily Thai-only educational system with the aim of promoting national unity. However, this policy has shown to actually fuel social conflict as well as overlook the needs of ethnic minority children. The Patani Malay people's fears of assimilation by the Thai majority have fueled renewed social violence, and government schools, which are perceived as instruments of assimilationist policies, have been targeted. Over 150 teachers have been killed. In addition, student achievements in ethnic minority communities have also suffered. In 2008, 42.11% of third graders in Thailand's Deep South failed the Thai writing test taken by all third graders, while only 5.8% failed nationwide.

As part of an effort to promote peace, Thai officials are supporting the Patani Malay-Thai Bilingual/Multilingual Education (PM-MLE) project in Thailand's Deep South. PM-MLE is meant to bring the cultural identity of the Patani Malay people into the education system, show respect for their cultural heritage and reduce resentment. Under PM-MLE, both Thai and Patani Malay are used as the language of instruction, although for different purposes and at different times in a lesson. Class time is also devoted to children's academic and socio cultural development in order to promote their respect for their own as well as other cultures and religions.

The impact of PM-MLE has been positive. Local communities are being strengthened as parents and grandparents are now able to relate to their children's schooling. Students taking part in the PM-MLE project also tend to achieve 40-60% higher scores in all subject areas compared to Patani Malay students in monolingual Thai classrooms. Due to the success of PM-MLE, Thailand has adopted as a comprehensive national language policy that supports the right of all Thailand's ethnic minority children to obtain an education that incorporates their mother tongue.

use of local languages in instruction can transform parental and community participation and responsibility, and such empowerment can in turn improve the quality of schooling. The use of local languages also has an impact on adult literacy. As parents see their children successfully learn to read and write in their language, they are often motivated to attend literacy classes themselves.²⁸

» Introducing the Second Language

Countries that use MTE-MLE must decide when the second language should be introduced and if/when instruction in mother tongue languages will be discontinued.

Introducing a second language to children is most advantageous when it is introduced to them at an early age and in low anxiety situations, containing familiar and easy understood messages rooted in their culture and traditions. Children learn a language most efficiently between the ages of 3 and 830, and their ability declines dramatically afterwards as working memory and reasoning ability increases. In addition, the earlier vocabulary and grammar are learned,

the easier and faster they are mastered and used to impact achievement in other subjects. Children should learn 1,000-2,500 words a year in order to understand the roughly 2,000-3,000 words needed to understand the concept of lessons sufficiently.³² Further, children require 5-7 years of instruction in a second language before they start catching up on school tests that measure their ability to use L2 for formal academic learning, as opposed to using L2 for basic interpersonal communication.³³

Yet, giving a child a strong foundation in his/her mother tongue language helps L2 learning much more than early or long exposure to L2 by itself. Young students are able to transfer literacy and curriculum content skills learned in one language while learning another, and high achievement in L1 helps students maximize this skill. Differences in reading and academic performance may be dramatic between students who receive bilingual education and those who receive instruction only in L2. Further, deficiencies in the second language and verbalization of concepts within curriculum content may not be apparent in the lower grades, but they become more apparent after grades 4-5, when concepts become more challenging. When students know only limited

http://www.unesco.org/uil/litbase/?menu=4&programme=147
World Bank. 2005

Mechelli, A., J.T. Crinion, U. Noppeney, J. O'Doherty, J. Ashburner, R.S. Frackowiak, and C.J. Price. 2004. "Neurolinguistics: Structural Plasticity in the Bilingual Brain." Nature 431: 757; UNESCO. 2008. Improving the Quality of Mother Tongue-Based Literacy and Learning: Case Studies from Asia, Africa and South America.

Johnson J.S., and E.L. Newport. 1989. "Critical Period Effects in Second Learning." Cognitive Psychology 21: 60-99.

Mervis. C.B., and J. Bertrand. 1994. "Acquisition of the Novel-Nameless Category Principle." Child Development 65: 1646-1662.

Nation, P., and R., Waring. 1997. "Vocabulary Size, Text Coverage and Word Lists." In Vocabulary: Description, Acquisition and Pedagogy, N. Schmitt and M. McCarthy, eds. Cambridge: Cambridge University Press, pp. 6-19.

Ball, Jessica. 2011. Enhancing Learning of Children from Diverse Language Backgrounds: Mother Tongue-Based Bilingual or Multilingual Education in the Early Years. UNESCO.

³⁴ Abadzi. 2006.

grammar and vocabulary, they do not have a sufficient foundation from which to peg complex concepts and classes get stuck in a relatively simple level of discourse. In addition, although introducing L2 early is beneficial, early childhood education programs such as preschool, which play a critical role in providing students with "school readiness skills" in preparation for the literacy and numeracy skills to be acquired in the early grades of elementary school, are more effective when conducted in the medium of the learner's mother tongue, or the language that the learners know best. 35

 ${\it Figure 2: Methods of incorporating multiple languages into education}^{36}$

introducing the second language: 10 percent of L2 in Grade 1, and then gradually increasing to 20 percent, 30 percent, 40 percent, and 50 percent by Grade 5. In this scenario, students whose mother tongue is different than the second language will, by Grade 5, catch up with or even overtake students who have been taught only in this language.³⁸ Effective MT-Based MLE programmes use both languages for teaching throughout primary school. *Figure 2* presents an example of a progression plan for teaching and using languages in a 3-language MT-Based MLE program.

K 1	К2	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
Build fluency in oral L1	Continue oral L1	Continue oral and written L1, oral L2	Continue oral and written L1, L2	Continue oral and written L1, L2	Continue oral and written L1, L2, oral L3	Continue oral and written L1, L2, L3	Continue oral and written L1, L2, L3
	Begin oral L2 (late in the year)	Begin written L2 (late in the year)		Begin oral L3	Begin written L3		
L1 for teaching	L1 for teaching	L1 for teaching	L1 for teaching	L1-L2-L1 for teaching	L1-L2-L1 for teaching	L1-L2-L1 for teaching	L2-L1 for teaching

Therefore, the most effective bi/multilingual programmes aim for high achievement in both L1 and L2 and do not use one as a means of establishing proficiency in the other.³⁷ These programmes invest in L1 teaching and learning for as long as possible. Students should ideally continue to learn their mother tongue throughout their schooling, either as a subject itself or as the medium of instruction in some subjects, while they study L2 and even when they are proficient enough that teachers could use L2 as the sole medium of instruction. Programmes in which mother tongue instruction is used only at the most rudimentary level – perhaps only used verbally in the classroom - and used only as a "bridge" to teaching fully in the L2, have proved less effective.

Research suggests that one of the most effective models of language introduction is an incremental approach to

» Possible Obstacles to Implementation

The following presents common challenges and resistance often encountered to using MTB-MLE in schools. Each challenge is addressed in a response based on evidence-based research and experience.

1. Challenge: Limited Resources

 Developing materials in the language of instruction for teachers and students involves design, piloting and evaluation, which requires the commitment of significant resources. Costs may be even higher when the languages in question lack a writing system.

Responses:

 As discussed, investing in producing materials in the language of instruction pays off in the long term, ultimately reducing the cost of the education system and improving learning. While the challenge of producing education materials in different languages can appear considerable, "it is better than continuing to waste taxpayer dollars educating children who are functionally illiterate."

Sulinama Foundation. 2014. "Ambon-Malay based Early Childhood Education." Presentation at SEAMEO-QITEP conference in Jakarta 23-26 September 2014. SIL Ambon.

Source: Malone, Susan. 2007. Mother Tongue-Based Multilingual Education: Implications for Education Policy. Presented at the Seminar on Education Policy and the Right to Education: Towards more Equitable Outcomes for South Asia's Children. Kathmandu, 17-20 September 2007. SIL International.

UNESCO. 2008. Improving the Quality of Mother Tongue-based Literacy and Learning: Case studies from Asia, Africa and South America.

³⁸ Abadzi. 2006.

Pikkert, Joost. 2014. Strategic Planning for Basic Education in the Rural and Remote Areas in Tanah Papua: Educational Planning for Isolated Papuan Language Communities. SIL International for ACDP.

- Some countries have taken advantage of ICT technologies (such as computer based processing) to reduce costs associated developing materials for bi/multilingual instruction.
- **Example:** Papua New Guinea has published materials in hundreds of languages by using a basic "shell book" format.
- **Example:** Mali, where bilingually-taught students significantly outperform those in French-only schools, provides education in 11 languages and has materials available in each.40

2. Challenge: Parental Resistance

- · Parents may wonder why their child is being given instruction in their mother tongue instead of in a national or international language that would improve their earning opportunities and enhance their socioeconomic status.41
- **Example:** Many parents in Haiti have resisted the use of Creole because it is considered the "language of the poor".
- Example: Many Mexican parents believe Spanish should be prioritized over indigenous languages because it is the 'language of progress.' 42

Responses:

- Learning in their mother tongue will not harm children's acquisition of the national language. In contrast, mother tongue instruction has actually shown to improve national language proficiency compared to monolingual instruction in the national language.
- Creating awareness among parents of mothertongue language policy and its benefits is crucial for successful implementation of MTB-MLE programs.
- Parents should be included in providing support in classrooms with, for example, the development of materials and supervision of their implementation in schools, such as by reading stories in the mother tongue.43

Children of the elite as well as gifted children usually have little difficulty in achieving academic success by learning in the medium of the dominant national languages in schools. 44

• Governments may find it difficult to prioritise learning

outcomes over politically sensitive issues concerning

3. Challenge: Political Ambivalence

language use in education.

Responses:

- The type of system-wide reform that is needed for bior multi-lingual instruction to achieve its potential, including reform of teacher training, adapting the examination system and moving toward a more student-centred method of instruction, requires significant political commitment and the development of administrative and technical capacities throughout the education system.
- The gifted child and those who come from higher socio-economic households, are in the minority. An equitable education system must consider the vast majority of students who face significant problems with the language of instruction, especially in schools in rural and remote areas.
- The best outcomes from the implementation of mother-tongue policies have been found in countries where policies have been matched by sustained commitment from both national and local authorities.
- Example: In Mali, reform has been extensive and successful and could have only taken place in a context of long-term political support for mothertongue instruction.45
- **Example:** India's government has demonstrated long-term commitment to multilingual education (See **Box 4**).

4. Challenge: Human Resources

- Teachers proficient in mother tongue languages must be identified and trained.
- Teachers will require support, supervision and monitoring, creating further costs for the government.
- In many countries, materials in one language are scarce and teacher development for monolingual instruction

World Bank. 2005.

UNESCO. 2011.

World Bank. 2005.

Pflepsen, A. 2011.

Abadzi, A. 2006.

UNESCO. 2008a.

Box 4: India's Three Language Formula

India, one of the most linguistically diverse countries in the world, has a long history of supporting the right of children to learn in their mother tongues. In the 1960s, the government introduced the Three Language Formula in education, whereby all children should learn their mother tongue or a regional language, Hindi and English. The Indian Constitution also establishes that states and local authorities within states should 'provide adequate facilities for the instruction in the mother tongue at the primary stage to children belonging to linguistic minority groups'. Similarly, the 2009 Right to Education Act emphasizes the education should be delivered in the mother tongue where possible. Many states comply with the Three Language Formula and mother-tongue instruction directives, with more than 90 per cent of primary schools using mother tongues in instruction. In some states, the government has invested significant resources in developing materials for instruction in minority languages, bringing about improvements in enrolment, attendance and achievements across the curriculum. For example, materials such as alphabet charts, big books for class and group reading and small books for individual reading have been developed in eight minority languages in the state of Andhra Pradesh and in ten minority languages in the state of Orissa. An evaluation of multilingual education programmes in Orissa found students taught in their mother tongues performed better in tests of language and mathematics than those who were not. 46

problematic, creating understandable reluctance to the development of resources in multiple language and the training of teachers in bi- or multilingual⁴⁶ instruction.⁴⁷

Response:

Recent research by the Summer Institute of Linguistics
 (SIL) has underlined the importance of developing
 teacher training curriculum that is driven by the
 educational needs of rural and remote communities,
 instead of adopting a teacher training curriculum
 meant for urban areas, as a key means of establishing
 quality education in remote and rural communities.

- Source Global Campaign for Education. n.d. Mother Tongue Education: Policy Lessons for Quality and Inclusion: Johannesburg, South Africa: Global Campaign for Education; Pandey, L. n.d. Multilingual Education Programme of Orissa An Evaluation Study. Presentation. Delhi, India: National Council of Educational Research and Training; Subhash. 2013. Three Language Education Formula in Multilingual Education India: Problems and Prospects. International J. Education Research. Vol 1. Issue 4
- World Bank. 2005.
- Pikkert, Joost, Jacqualine Menanti and Novi Matulessy. 2014. Rural and Remote Area Education Strategic Planning Study for Tanah Papua, 2014. SIL Indonesia.

- Example: Thailand has provided pre-primary teachers
 who do not speak Patani Malay with speaking
 assistants who do speak the minority languages to
 allow for bilingual education. These assistants receive
 a monthly stipend from the PM-MLP project. A number
 of unpaid volunteers also support the program.
- Example: In Thailand, new teachers and teacher assistants are trained and mentored by teachers who already have experience in multilingual education. Faculties of local universities are developing a curriculum to teach university students to become teachers for multilingual education. They are also assisting in helping ethnic Thai teachers who do not speak Patani Malay to understand their role in the programme.⁴⁹

» Implementing MTB-MLE in Papua

Implementing mother tongue based multilingual education more widely in eastern Indonesia, especially in Papua, could significantly improve education outcomes and contribute to reducing gaps in enrolment and dropout between western and eastern Indonesia. However, a range of obstacles like those described above have historically prevented indigenous languages from being used more widely as a medium of instruction in Papuan schools.

Firstly, for many community leaders, education administrators and practitioners (such as principals, teachers and supervisors) government policy on which language to use in education is still too vague. As noted above, government policy in Indonesia allows local languages to be used in classrooms if Bahasa Indonesia cannot be used as the introductory language. However, the ambiguity of the terms 'cannot be used' and 'introductory language' lead many communities which have low levels of use and understanding of Bahasa Indonesia to feel compelled to use Bahasa Indonesia as the language of instruction in school. Although senior education administrators have voiced significant support for MTB-MLE recently (see Box 5), a clearer, more explicit policy that states that the mother tongue and/or the language used most widely in communication in the community can be used as the language of instruction in early grades in the elementary schools, would provide far greater legitimacy to the use of mother tongues in instruction.

A further challenge is that the value of MTB-MLE tends to be misunderstood and inconsistent among the isolated and

UNESCO.2012.PataniMalay-ThaiBilingual/MultilingualEducation. http://www.unesco.org/uil/litbase/?menu=8&programme=147

Box 5: Political support for MTB-MLE in Papua

Source: Protasius Lobya, (Cenderawasih Pos, 7 October 2014)

"The mother tongue has a very important role in education development, particularly in isolated areas." - Protasius Lobya, Secretary of the Education and Culture Office of Papua Province (Cenderawasih Post, Oct 3, 2014)

"If many first graders do not understand what their teachers are teaching them (in Bahasa Indonesia), then they will not be able to count, read or learn science. But they will surely succeed better if (we teach them) using the language used in their daily lives." - Protasius Lobya (Cenderawasih Post, Oct 7, 2014)

rural communities that would stand to benefit most from its implementation. Reactions range from "We've been told the language we speak is an animal language," to "Yes! We would love to have the freedom to use mother tongue but we are afraid of what the government might think." Many rural and remote communities support the use of mother tongues in classrooms. However, their support tends to be based on the fear that their languages and cultures will die out if it is not integrated into the school curriculum rather than perceived educational benefits.

It is therefore essential that communities, education administrators and practitioners be made aware that MTB-MLE can play a critically important role in improving the quality of their children's education as well as in preserving the vitality of their language.

There are several important logistical obstacles to increasing the use of mother tongue based instruction. One of the most significant of these is the supply and management of quality teachers especially to the rural and remote areas of Tanah Papua 50 Teachers from the local communities would be better placed to understand local culture and to be able to teach in the mother tongue languages. However, recent studies of teacher absenteeism in Papua have observed that there are higher rates of absence from school and the classroom among teachers who come from the local communities in comparison to those teachers coming from outside.⁵¹

One solution to this could be to strengthen the community school committee for each village school. Currently school committees function in a mainly consultative and fundraising manner. However, they could be strengthened to provide greater oversight for school matters, including the monitoring of teacher attendance and performance.

Teachers need to be trained to teach in a multi-lingual context and to use mother tongue instruction in schools. Here the role of the Faculty of Teaching and Learning (FKIP) in the local universities plays an important role in promoting MTB-MLE in its teacher preparation programmes as well as in the Teacher Training Colleges which have a specific mandate to serve the rural and remote areas of Papua where mother-tongue instruction can be of the most benefit.



Other challenges include the development of mother tongue orthography, reading and instructional materials as well as curricula. There are approximately 275 languages in Tanah Papua (see *Figure 3*) and they are at various stages of development, some are dormant or dying, others although in daily use -- need development in terms of written orthography. They may be strictly oral and lack the most basic linguistic analysis including a writing system (written letters to represent sounds, vocabulary to represent new ideas and concepts, etc.). Others are vibrant and well-developed in terms of literature, such as stories and legends, representing local culture. Some even have excellent multilingual curricula that introduce literacy in the local language and then introduce Bahasa Indonesia later. Clearly the development of orthography, reading and instructional materials and curricula for all 275 languages is not viable. Part of the challenge will be selecting which languages can and should be used for instructional purposes.

Tanah Papua includes the current two provinces of Papua and West Papua included in Inodesian Papua.

See, for example UNICEF, UNCEN, UNIPA, SMERU, and National Center for Statistics (BPS), (2012) "We like being taught: A study on teacher absenteeism in Papua and West Papua" which found that native Papuans are twice as likely to be absent from schools than non-Papuans teaching in the same areas. At any one time, 40% of native Papuan teachers may be absent from school.

Moreover, while local language curricula have been developed in many Papuan languages over the years, this has been carried out by a range of organisations and many of the curricula are very different in terms of structure and philosophy. The lack of a "print culture" as well as a specific model of MTB-MTE to be used (see *Figure 2* above) needs to be addressed. Fortunately, with modern technology it is possible to write and produce instructional materials in multiple languages more cheaply than in the past.

For greater numbers of communities and schools to embrace high quality MTB-MLE, the government must provide greater support for capacity development, implementation and co-ordination of such initiatives. The newly established "Language and Letters Section" within the provincial office of Education and Culture in Papua, working with NGOs and Foundations such as SIL that are devoted to mapping language communities, schools and MTB-MLE development, has the potential of providing critical support for development of Papuan languages and MTB-MLE. In addition, establishing Mother Tongue Based Multilingual Education committees at the community level would also facilitate stronger implementation.

All of these challenges can be overcome with political will and commitment as they have been in many other countries around the world. Some key political support for MTB-MLE is already in place in Papua. The government has committed to running an MTB-MLE pilot programme in collaboration with other stakeholders, which will start in the school year 2015/2016. Drawing heavily from the Thai-Malay multilingual education project, the pilot program will evaluate the effectiveness of using a transitional MTB-MLE model in increasing learning outcomes among students in rural and

Figure 3: Language Map of Tanah Papua
Source: Summer Institute of Linguistics International Indonesia (SIL), Papua.



remote primary schools over a 3-year period. The pilot will be designed for implementation in 30 "sekolah kampong" schools (20 treatment and up to 10 control schools) in the rural and remote areas of the province.

Some of the central challenges to wider adoption of MTB-MLE education are also being addressed. In addition to the aforementioned establishment of the Language and Letters Section within the provincial office of Education and Culture in Papua, steps are being taken to address the quality and relevance of teacher training. Cendrawasih State University's Faculty of Education and Teaching (UNCEN's FKIP) is embarking on a revitalization program of teacher training programmes that will include the reform of the four teacher training colleges in Papua and West Papua provinces to incorporate Papuan Mother Tongue Based Multilingual Education.

While the challenges may be formidable and the initial costs of implementing MTB-MLE will be significant, there is compelling evidence to suggest that if there is sufficient political commitment and if MTB-MTE is implemented well, it is a wise investment which in the long run will secure many educational, social, political and developmental payoffs.



Photo: MoEC Public Relations and Information Center

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