Multilingual Education among Minority Language Communities with reference to the development of MLE programmes in India

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1. An Introduction to Multilingual Education: what is it?

The purpose of a multilingual education (MLE) programme is to develop appropriate cognitive and reasoning skills through a programme of structured language learning and cognitive development, enabling children to operate successfully in their native, state and national languages. MLE provides a strong foundation in the first language (mother tongue), adding second (e.g. national) and third languages (e.g. English) enabling the appropriate use of both/all languages for life-long learning (Malone 2005).

Multilingual education is also multicultural, with learning beginning in the child's known environment and bridging to the wider world.

The bridging process allows children to maintain local language and culture while providing state and/or national language acquisition and instruction. This process provides learners with the opportunity to contribute to national society without forcing them to sacrifice their linguistic and cultural heritage.

2. MLE for minority language communities: the history

Until the late 1970s the use of mother tongue in education was only found outside the formal system. Programmes were developed to help adults achieve a basic level of literacy in mother tongue (MT) using a primer-based approach.

The use of MT as the language of instruction in the 1980s focused mostly on out of school children; those with no access to school, or those in pre-primary outside the formal system.

Even though as far back as 1953 UNESCO suggested that children should be given the opportunity to learn in their mother tongue, it was only in the early 1990s that Multilingual Education programmes such as those described above have been incorporated into both the formal and non-formal systems in some countries. By 2003, UNESCO published a position paper which stated that:

"UNESCO supports mother tongue instruction as a means of improving educational quality by building upon the knowledge and experience of the learners and teachers."

"UNESCO supports bilingual and/or multilingual education at all levels of education as a means of promoting both social and gender equality and as a key element of linguistically diverse societies."

United Nations Literacy Decade: Education for All, International Plan of Action - Resolution A/56/116

- •Literacy for All will be effectively achieved only when it is planned and implemented in local contexts of language and culture...
- •Literacy policies must recognize the significance of mother tongue in acquiring literacy and provide for literacy in multiple languages wherever necessary. (p. 4)

3. Educational provision for minority language communities: the real picture

Because many minority language communities live in remote and inaccessible regions of the world, it is often the case that schooling in any form is unavailable. The "right to education" is in practice still denied them. Where they do have access it is usually only to "non-indigenous" forms of education. Within these programmes tribal or indigenous culture may be misunderstood or ignored, or even depicted in negative terms. The language and culture of the classroom is unfamiliar; curriculum materials, classroom interaction and instruction are all in a foreign language and teaching methods are unrelated to cultural learning styles.

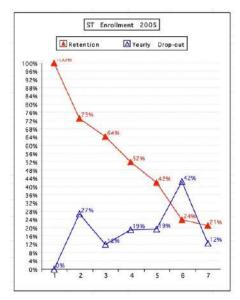
3.1 Results of Non-Indigenous Education

As the World Bank (2004) points out:

Fifty percent of the world's out of school children live in communities where **the language of the schooling is rarely, if ever, used at home**. This underscores the **biggest challenge** to achieving Education for All (EFA): a legacy of non-productive practices that lead to low levels of learning and high levels of dropout and repetition.

An education system which does not take into account local culture and language is characterised by low intake, high repetition and high drop out rates. The dropout rates are high because education has little perceived relevance; achievement levels are low because concepts and competencies are difficult - or impossible - to learn in an unfamiliar language.

The following graph shows the retention rates and yearly dropout rates for scheduled tribes in Orissa: 27% of children drop out before class 2 and 42% drop out before class 6. Only 21% are remaining in school by 7th grade.



Bailey, 2007 (figures from Government of Orissa)

The picture presented of a primary school in Chhindwara, Madhya Pradesh, India reveals the problem of non-comprehension for tribal children in the classroom:

The children seemed totally disinterested in the teacher's monologue. They stared vacantly at the teacher and sometimes at the blackboard where some alphabets had been written. Clearly aware that the children could not understand what he was saying, the teacher proceeded to provide an even more detailed explanation in a much louder voice.

Later, tired of speaking and realizing that the young children were completely lost, he asked them to start copying the alphabets from the blackboard. "My children are very good at copying from the black board. By the time they reach grade 5, they can copy all the answers and memorise them. But only two of the grade 5 students can actually speak Hindi", said the teacher.

Jhingran, 2005 p.1

Jhingran's study of a selection of schools in one Block in four different States showed that

- Children have no comprehension of teacher's language even after about 6 months in Grade I.
- Grade I children showed no recognition of alphabets, except when arranged in sequence (showing that they can only "learn" by rote and memorisation).
- Teaching emphasised passive participation, and copying alphabets and numbers from blackboards or text books.
- There was very little conversation or oral work in children's L2, the medium of instruction.
- The situation was a little better when there was a tribal teacher speaking children's language.
 While the medium of instruction was still in an unknown language the tribal teacher could help them out.

The academic performance of tribal children in Grade V reflects the difficulties:

- The children read with a lot of effort, mostly word by word
- Their oral skills in the second language were poor
 - o They could not frame sentences correctly and had a very limited vocabulary
 - o They were more comfortable speaking in their mother tongue
- While they could partially comprehend text (of grade 2/3 level), they were unable to formulate an answer to simple questions in the standard language.
- In most schools, the tribal language speaking children could not score a single mark in the reading comprehension test (Jhingran, p.50)

Schooling in a second language so limits children's progress in the acquisition of knowledge and skills that few are able to proceed to higher studies or find employment. These children are thus set up for rejection and its consequence in low self esteem, a system failure that translates into experienced personal failure. There is also a gender discrimination issue in that girls are more likely than boys to be monolingual and therefore more disadvantaged (Benson, UNESCO 2005)

For those who do manage to complete high school it is difficult to fit back into their own culture and society; schooling can alienate the children from their communities. One parent of a school child in Papua New Guinea expressed this graphically:

"When our children go to school they go to an alien place. They leave their parents, they leave their gardens, they leave everything that is their way of life. They sit in a classroom and they learn things that have nothing to do with their own place. Later, because they have learned only other things, they reject their own."

(Dekpit & Kemmelfield 1985, 19-20)

Further results of non-indigenous education include the loss of the heritage language and culture; loss of linguistic and cultural diversity and indigenous knowledge:

Every language reflects a unique world view and culture mirroring the manner in which a speech community has resolved its problems in dealing with the world, and has formulated its thinking, its system of philosophy and understanding of the world around it. With the death of the language, an irreplaceable unit of our knowledge and understanding of human thought and world view has been lost forever.

(Wurm 1991, 17)

poverty and demoralisation:

For many ethnolinguistic minority groups...promises of incentives such as economic and social mobility are doled out as poor compensation for cultural subordination and language shift. In the process, paradoxically, the linguistic minority groups are driven to further poverty -- culturally and economically -- because their languages, as resource for educational achievement and, through it, for equal access to economic and other benefits in a competitive society, are rendered powerless.

(Mohanty 1990, 54)

and a weakened and divided nation:

Our greatest national resource is the diversity of cultures in our country. Diversity means more viewpoints to clarify, more ways of solving problems, more creative ideas, a greater ability to deal with change... Where diversity is crushed...the nation becomes weak and divided.

(Waiko 1997)

If mother tongue (MT) is not utilised children tend to remain illiterate in both (or all) languages. If MT is not developed sufficiently for them to become fluent readers and writers, their understanding of the vocabulary and syntax of their own language will be limited. This gap in their understanding of the structure of their first language limits their ability to learn the second language (L2). A strong foundation in MT is required for learning L2, as Cummins (2000) points out:

- "The level of development of children's mother tongue is a strong predictor of their second language development...
- Children...with a solid foundation in their mother tongue develop stronger literacy abilities in the school language.

Thomas and Collier would agree that it is a fallacy to think that children who are immersed in L2 from the beginning learn L2 better. They do not. This is what they found happens when children learn in L2 only:

"English (L2) language learners immersed in the English (L2) mainstream ... showed large decreases in reading and math achievement by grade 5 when compared to students who received bilingual/ESL services. The largest number of dropouts came from this group."

Thomas and Collier, 2002

Benson corroborates this finding:

Submersion in L2 is at least highly inefficient, if not wasteful and discriminatory, since such school systems are characterised by low intake, high repetition and dropout, and low completion rates. The costs to the individual, who sacrifices productive agricultural and family work time to go to school, only to experience failure and rejection, are high.

Carol Benson, 2002 p314

Children's understanding of concepts is limited or confused if learning only in L2, but the knowledge and skills they acquire in their first language "transfer across languages from the mother tongue...to the school language". (Cummins 2000)

Jhingran (2005) sums up:

The exclusion of mother tongues from early education has serious consequences for tribal children

3.2 MLE: the benefits

The benefits of mother tongue first MLE programmes have been amply demonstrated. Schooling becomes comprehensible and therefore relevant. Enrolment increases, dropout rates are reduced, children stay in school longer. They no longer arrive late and leave after the free midday meal). Teachers are happier being able to communicate freely with the children, children are learning, parents and the community are involved (SSA evaluation of the Andhra Pradesh MLE, 2006). During discussions which the author had with these communities in December 2006 parents reported that children were sharing with them what they had learnt; something which never happened when schooling took place only in the second language. Parents were requesting literacy lessons themselves from the teachers!

The World Bank (2005) suggests that, because of the reduced dropout and repetition, that even though the initial costs may be high, it is more cost effective in the long term, to implement mother tongue programmes.



Children from the Koya language community listening to a story in their classroom for the first time in their mother tongue.

4. Developing MLE Programmes: the difficulties and challenges

a) Negative perceptions of MLE

There are various negative perceptions of MLE, but these mainly come from the dominant language community who misunderstand the purpose of using mother tongue education. Some will suggest that using the mother tongues of minority communities is a waste of time and resources and since they need the dominant language it is best if they learn it as soon as possible for as long as possible (submersion model).

Some resistance is shown by both educated members of minority groups and some parents who will argue that the children already know their mother tongue and they come to school to learn new things. But the problem is that the majority drop out before they reach a place where they can understand.

b) Lack of positive policies

There is often no recognition or official status given to minority languages. With no clear policy on the use of mother tongues, to use the dominant language only becomes the easiest route, even if ineffective. Uniformity in an education results in an inflexible system and the quality of the education provided for minority language groups is ignored. There is often a lack of political will, besides a lack of any positive policy on language and education in favour of linguistic minorities.

c) Poor planning and preparation

Where there is some effort to use minority languages, the range and quality of the programme is often limited to one textbook and few, if any, supporting materials. The quality of the materials is often poor, not just in production, but also in content, especially when materials are centrally developed, ignoring the input of local communities. Local mother tongue speaking teachers who may (or may not) be employed, often do not receive sufficient training. And not enough time given to develop L1 or the bridging process, offering a way out for governments who then suggest that MLE does not work.

c) Scripting the language

Most of the languages are unwritten, and not officially recognized. Some languages are treated as dialects and therefore are not seen as legitimate in their own right. Some will argue that the trouble and cost of developing writing systems, literature and curriculum is too high. However, with the help of linguists, it is not impossible to work out the orthography and grammar which is then used as the basis for developing curriculum and building a corpus of educational materials.

d) Underdeveloped languages

Some argue that these languages do not have appropriate educational terminology, but Mohanty (2006) suggests that the

"disabilities and disadvantages associated with minor languages are not inherent; they are socially constructed with institutionalised discriminations in educational, political, economic and other social spheres."

It is their exclusion from education and other domains which have prevented these languages from developing and results in weaknesses. This lack is then used to justify further neglect and exclusion. Inclusion in education will help to break this cycle of deprivation, and strengthen the languages.

e) Multiple languages

There is the very real challenge of multiple languages in a classroom. This is not just the challenge of dealing with one minority and one majority language, but of a number of languages whether minority or majority. Some schools may serve a number of different communities and developing strategies for dealing with the multiplicity of languages needs to be addressed.

f) Local teachers

The lack of trained teachers, or even of those who are able to be trained is a perennial problem; but investing in training for teachers chosen by the local community will ensure an education of a higher quality than if teachers are brought in from outside. It is often too much of a challenge for teachers who are not mother tongue speakers to teach in places, often located in remote regions, where language is a barrier to learning.

g) Fragmented society

The fear of causing division is also a factor in the choice of language for education, but it has been suggested (See Waiko 1997) that NOT using indigenous languages will cause more unrest within a nation and prevent all groups from contributing to society.

5. Educational, linguistic and cultural rights

What, then, needs to be done to ensure children's right to a quality education? And what assurance can be given that the language and cultural rights of tribal/indigenous communities are being addressed by the education system?

The kind of education programmes which should be adopted needs to be decided. Based on the current research and education theory, Mother Tongue first multilingual education programmes, where the language and culture of the child forms the core of the curriculum, could relieve some of the current difficulties experience by children of minority language communities.

5.1 What shape should the programmes take?

There are various models of bilingual and multilingual education which research and experience would support as best practice (Skutnab Kangas?) and there are ideal conditions for implementation, but the reality rarely offers such an environment and the practice may not consistently equate with the theory. However, it is essential that children are given the best educational experience possible based on sound educational theory and practice. Some of these are outlined below:

a) Begin where a child is

Learning to read and write is easier in a familiar language and concepts are better understood through MT. Children learn best in a language they speak and understand well; they need to learn in a language they think in. Skills and concepts can be easily transferred to other languages.





Telling the story of a tamarind tree under a tamarind tree Mr Ramanaiah, Bhadrahamalam, AP

b) Based in the culture and environment

Children learn best when starting with the familiar and moving to the unfamiliar; concepts need to be based in their immediate environment and within their experience. The concepts are general; the context is different.

Children learn what is important in the community; they learn the values and knowledge important to the community. The culture is contained in the language and so indigenous knowledge is best learned through indigenous language.

c) A strong foundation in the mother tongue

A strong foundation in MT is a good predictor of successful second language learning; providing a good L1 foundation will support the learning of the second language. Learning language and learning about language encourages a child's metalinguistic conceptual understanding giving a basis on which to build other languages.

d) Build a good bridge: second language acquisition

A good bridging process requires the gradual growth of the second language first through increasing the oral ability in the new language, moving on to written forms and then gaining fluency in all literacy skills (listening, speaking, reading and writing). Cummins (1979) suggests that while it only takes about 2 years to develop basic communication skills, it takes between 5 and 7 years to acquire sufficient competency in the second language to use it for academic purposes. Children need to acquire this competency before using as the second language as the medium of instruction. In other words, they need to *learn* the new language before learning *in* the new language.

UNESCO recommends that the second language should be introduced

"as a subject of instruction" the amount of which "should be increased gradually" and which should not become the medium of instruction "until the pupils are sufficiently familiar with it".

The mother tongue should not be replaced by the second language. Other languages should be added so that all languages are used as a resource for learning (Agnihotri 2007). MLE programmes should be additive rather than subtractive; and multilingual using both/all languages rather than submersion, assimilation model.

A possible progression of language skills and concept development can be seen in figure 1.

5.2 Firm foundations = stability and strength

Emotional stability and sense of security are essential foundations for learning. Developing self esteem, a sense of personal worth and value, cultural identity and ensuring a place in the community will reduce alienation and the results thereof. Alienation results in social dysfunction and political instability.

Figure 1: Language skills and concept development chart

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7
L1	Build small children's oral fluency, competence and confidence in L1	Use L1 as the medium of instruction Continue to build oral L1 Introduce reading and writing in L1	Use L1 as the medium of instruction Continue to build oral and written L1 Introduce Oral L2	Use L1 as the medium of instruction Continue to build oral and written fluency in L1 Continue to build oral L2 Introduce reading and writing in L2	Continue to build oral and written L1 & L2 for fluency, and learning new concepts	Continue to build fluency & confidence in using L1, L2 and L3 for everyday communication & for learning new concepts	Use all languages for learning
L3					Introduce oral L3	Introduce reading and writing in L3	

6. Challenges and solutions: the Indian context

India's linguistic diversity presents some complex challenges, but in the last few years some State Education Departments, under Sarva Shiksha Abhihan (SSA), are beginning to address some of the issues with the practical implementation of possible solutions.

6.1 Linguistic diversity

The Census of India (1961) recorded 1652 mother tongues with a much larger number of dialects which have been classified into 300 to 400 major languages belonging to five language families. But there are only 22 official languages (*Constitution of India*, VIIIth schedule, after the 100th constitutional amendment, December 2003), along with English (the associate official language). Nearly 80 per cent of Indian languages are endangered; most of them tribal.

6.2 Scripts

There are 25 scripts used for writing Indian languages; 11 major scripts are used to write the main scheduled languages; 13 minor scripts are used for writing some minor and tribal languages; and Roman script has been adopted by some languages in recent years.

Some tribal languages, such as Santali, have developed their own writing system, but most of the tribal languages do not have a script. Where an orthography has been developed, the script of either the dominant regional language or another major language is used.

One tribal community, speaking the same dialect, may cross, using the example of the Koya, three state borders which means if the policy of scripting local languages in state scripts means that this one language would be scripted in three scripts: Devanagiri, Oriya and Telugu. While this may be easiest for the state and for further education within the state, the policy further divides the community.

6.3 Tribal communities

According to the Anthropological Survey of India (ASI), there are 623 tribal communities, with a total population of 84.3 million. This constitutes 8.2% of the total population (1028.6 million) (Census of India, 2001). The majority of these 80 million people live in rural and economically underdeveloped areas.

6.4 Policy support

This work is supported by Government of India statements. For example, the Indian Constitution states that:

'it shall be the endeavour of every state and of every local authority within the state to provide adequate facilities for instruction in the mother-tongue at the primary stage of education to children belonging to linguistic minority groups'. (Article 350A)

The National Council for Education Research and Training (NCERT) in the National Curriculum Framework, 2005 (NCF) makes it clear that language and culture are important to children's learning in the following statements:

a) Concerning language:

- "Home language(s) should be the medium of instruction in school"
- "It is imperative that we honour the child's home language(s)"
- "Bilingualism and multilingualism confer definite cognitive advantages"
- "...evolving strategies that use the multilingual classroom as a resource"
- "Oracy and literacy will be tools for learning and for developing higher order communicative skills and critical thinking"

b) Concerning local culture and environment:

- "Child centred pedagogy means giving primacy to children's experiences, their voices and their active participation." (13)
- "Children will only learn in an atmosphere where they feel valued." (14)
- Knowledge (content of the curriculum) needs to be relevant, interesting and meaningful.
- "Children's community and local environment form the primary content in which learning takes place." (30)

7. MLE programmes

For many years, linguists and others have been calling for the use of mother tongues in education in the tribal areas across India, but it is only recently that a concerted effort has taken place in some states and that central government and government institutions [e.g. National Council for Education, Research and Training (NCERT); The Central Institute of Indian Languages (CIIL)] have been more actively involved in supporting work on bilingual and multilingual education programmes.

7.1 Programme development

Much discussion and advocacy work preceded the current move towards using mother tongues in primary education programmes. Now state governments with the support of the linguistic departments of the Universities, the involvement of local NGOs and with national and international MLE consultant support, along with tribal communities, have begun to design, develop, implement, monitor and evaluate multilingual education programmes. In some cases a resource team for each language group has been formed and training is taking place and resource centres for language and curriculum development have been established.

- Since 2003 Andhra Pradesh has been working in 8 languages and is currently implementing 3rd grade in Mother Tongue as well as developing training for new teaching methods and for second language acquisition.
- In 2004 a multilingual education conference was sponsored by the Government, UNESCO, UNICEF and the Central Institute of Indian Languages.
- Andhra Pradesh hosted a further conference on tribal education and others took place at CIIL and in Delhi.
- Orissa began developing materials in mother tongue for first grade in 6 languages early in 2000, but these were not followed through in most language groups. In 2006 this experience was built on in 10 languages and the development of textbooks and supporting materials took place and implementation of first grade began in 2007.
- Assam ran a workshop in 2006 in the tea gardens using the link language, Sadri. UNICEF is now involved in supporting the development of mother tongue programmes.
- Chhattisgarh held a 3 day awareness raising and planning seminar in 2006 and a curriculum planning and materials development workshop in January 2007.
- Jarkhand has held an initial seminar...

With the backing of international agencies, as well as local, national and international NGOs, the momentum is increasing and experience is accumulating. With the efforts of various academic institutions, research will increase understanding and knowledge of what is required and programmes will be strengthened.

7.2 Project design

The project design includes the components listed below, most of which overlap and need to be implemented simultaneously. The design is based on work by Malone (2003) which outlined the requirements for a sustainable MLE programme (see appx 1). The processes followed in developing multilingual education include the following:

- Surveys: linguistic and baseline
- Mobilisation

- Language documentation including orthography development
- Curriculum development
- Materials production, as well as literature production
- Teacher Training
- Implementation
- Monitoring, Evaluation and Review

a) Survey

Preliminary research is required to:

- collect baseline information on educational provision and effectiveness
- collect information about the languages and their uses in the community

The findings of the survey will guide data collection and analysis as well as curriculum development.

An initial survey for tribal languages should incorporate MLE aspects into the research, as well as looking at sociolinguistic issues. It should be conducted by linguists, with the help of international and local NGOs and in cooperation with SSA. A study should include:

- **Dialect variation:** is there a particular speech variety or dialect that would be most understood, accepted and suitable for developing materials? Is there already a recognised 'standard' variety? Are there people speaking certain varieties of the language that have difficulty understanding other varieties of that language?
- **Bilingualism:** how proficient are mother tongue speakers in the state language? There are a number of tools to assess bilingualism. For mostly illiterate, rural communities, the Sentence Repetition Test (SRT) is a well suited tool. This tool can also be used to test bilingual proficiency among other groups. (There are currently no SRT in Indian state languages and developing these should be considered).
- Attitudes: what are people's feelings and perspectives towards their mother tongue and other languages?
- **Time frame:** Two to four months, depending on the size of the area, is required to conduct a survey and submit a report.

b) Mobilisation

There is a need to raise an awareness of the programme at all levels of government and amongst all stakeholders. It is also necessary to mobilize resources.

The survey and data collection act as good mobilisation activities. The development of literature and dictionaries necessarily involve the local community and workshops act as a positive mobilisation activity, promoting local 'ownership' of the project, always an essential aspect.

Employing local teachers at this stage who are part of or at least familiar with the community can be a positive way to develop ownership.

c) Language documentation

Sounds and phonemes of each language need to be identified; a collection of 1000+ 1, 2 and 3 syllable words suitable for 1st grade learners listed, simple sentences and a list of numerals, colours and so on. This is then used for the basis of

- an alphabet chart with illustrations, key words and letter and
- an alphabet book with key words, other words containing the same sounds and simple sentences containing the key word for each letter of the alphabet.

A team of linguists, educators, mother tongue teachers, and NGOs need to be trained in gathering linguistic and cultural data. Previous research on the languages can also be utilised. The data is then analysed and forms the foundation for curriculum and literature development.

c) Orthography development

A tentative orthography has to be developed, tested and revised as necessary using a script which is acceptable to the local community. The Linguistic Departments of local universities can act as advisors. Community participation is critical in all phases of orthography development. Testing the orthography is essential; this can be done in conjunction with literature and curriculum development, and as the MLE programme is piloted.

7.3 Curriculum development and instructional material

Locally relevant curriculum and instructional materials for years 1-3 focus on building a strong foundation in speaking, listening, reading and writing and developing academic concepts in the mother tongue, based in local culture. In the case of India, the National Curriculum Framework 2005 (NCF) can be used as a guide to curriculum content and teaching methods.

Mother tongue teachers and resource persons from the language group should be identified and these together with the linguists and NGOs, MLE specialists and consultants should participate together to develop curriculum and for materials and training workshops.

a) Integrated curriculum

Children learn in meaningful contexts through an integrated curriculum. The NCF encourages the use of an integrated curriculum and a departure from the reliance on textbooks. Therefore, in each state where MLE is being developed, curriculum themes were chosen from a "village calendar" from which a curriculum was devised. Themes where chosen from seasonal events, daily activities and local environmental characteristics, all of which will be familiar to the child and based in the local culture. These ideas were then developed into curriculum materials for language, maths and environmental studies. Linguists and teachers met several times to develop and check the material and further strengthen the curriculum. Local artists were used illustrate the material according to tribal culture.

M. Dev Rao, of Palaguda, in Indervelli Mandal, Adilabad District, AP using a big book he made. See appendix 2 for the whole story.



b) Teaching methodology

Since MLE attempts to be creative and responsive, focusing on meaning and comprehension rather than perpetuating a conformist and submissive ethos and its corresponding tradition of rote learning, new teaching methods need to be incorporated into the curriculum design.

Language: Skills and accuracy

In Andhra Pradesh, textbooks for language and maths were developed which are used to develop skills and accuracy. Activities were incorporated to move away from textbook based learning and the theme based approach develops those skills in meaningful contexts.

For language skills the following materials were developed:

- Alphabet chart: letters, words and pictures
- Alphabet book: letters, words, sentences and pictures
- Activities: extending textbook focus

Language: Meaning and communication

For developing the skills in meaningful and communicative contexts the materials are developed locally. These include:

- **Listening stories:** for the teacher to read/tell to the students
- Children's reading books: with short sentences & pictures which the children can use by themselves or in small groups, or when reading with one other person.
- Fact sheets: using local knowledge
- **Big books:** stories, facts, experience stories, which are used as classroom reading material, commonly known as shared reading.

Other materials are made in the classroom by the children and teacher together. These might be for example: experience stories, chart stories, experiment write ups and so on.

Maths

As with language, in maths children learn both skills and their use. Skills are developed through concrete operations and activities.

Culturally relevant maths makes use of the new skills through theme related activities. Maths theme webs with culturally relevant maths and ideas for using maths in daily life were developed using the NCF mathematics concepts in both Orissa and Andhra Pradesh.

Environmental studies

Again in each state, ideas for involving the community and using the environment were developed from the themes, with activities in science, environmental studies, art and craft, drama, songs and dance

Teachers Guides are essential to support the teachers who are operating in remote locations and should include weekly and daily plans with ideas for activities.

All materials and new teaching methods need to be tested in schools. Evaluations need to take place and revisions made as necessary.

7.4 Literature development

Literature for use as part of the curriculum (oral stories, stories to read aloud, children's stories, songs, poems etc., related to indigenous cultural themes, facts and information), will be developed during the curriculum development workshops and writers' workshops. A corpus of culturally relevant reading materials is essential to build a literature environment. Every classroom should develop a library. Mother tongue speakers including community leaders, recognized story tellers, artists, teachers, and others should be trained to understand the principles and processes of writing, illustrating, editing, testing and revising. Materials may be printed locally using technology available in the community. These must be tested in the schools and communities, and revised at further workshops. Linguists will be available to support the process.

8. Ensuring a good transition: Bridging from L1 to L2

A good programme for second language learning, based on global research and sound educational language acquisition theory, is essential to the success of a multilingual programme. Second language learning (or second language acquisition: 2LA) should be developed in stages as outlined above starting with oral language development and moving on to reading and writing. This should be started only after developing a sound foundation in the Mother tongue. In India, second language learning is begun in grade 2 with oral development and in grade 3 with reading and writing.

Gradual transition of curriculum content in the state/national language will take place in grade 4. In grade 5 all classes will be conducted in the state language with support for understanding from the mother tongue.

Figure 3: Possible plan for transition based on The National Curriculum Framework, 2005

Pre-sch 1	Pre-sch 2	1 st Grade	2 nd Grade	3rd Grade	4 th Grade	5 th Grade
Language Oral MT	Language Oral MT	Language in MT	Language in MT	Language in MT	MT as subject	MT as subject
Number MT	Number MT	Math in MT	Math in MT	Math in MT	Math in L2	Math L2
Environment al Awareness In MT	Environment al Awareness In MT	EVS in MT	EVS in MT	EVS in MT	EVS in MT/L2	EVS in L2
Play	Play		L2 Oral dev'ment	Reading and writing in L2	L2 lang dev'mt	L2 lang dev'mt
					Oral L3	Reading and writing in L3

Appropriate second language learning materials; textbooks, activities and teachers' guide are necessary and in Andhra Pradesh these are in the process of development with a module for training on second language learning processes.

9. Teacher Training

All teachers in the early grades of primary education should be mother tongue speakers.

Teachers and resource persons will require a minimum of 5 days training (TOT) course. A training manual/teacher's handbook will need to be developed.

Teachers who will implement the programme require a minimum of 5 days of training if they have already been trained as teachers and at least 3 weeks if they are 10th grade graduates with no previous training, prior to implementation of the pilot phase.

Regular in-service training must be provided to continually support the teachers with developing the curriculum, literature and teaching methods.

10. Implementation

In Andhra Pradesh, ten single language schools, with teachers from the same community, were identified for the pilot phase. These teachers were trained in contextualizing the curriculum, to use the materials, in activity based learning and child-centred methods most suited for children of their communities. Orissa is piloting the curriculum in twenty schools in each language group.

11. Monitoring and evaluation

An evaluation procedure is already in operation developed to assess the curriculum and teaching methods, and children's, teachers' and communities' responses to it. Weekly reviews by teachers, observation by resource persons and time for feedback are essential.

In-service training and/or workshops on a monthly basis will build teachers' confidence and competence, facilitate evaluation and enable the further development of literature and curriculum materials necessary.

Evaluation schedules for children's learning in mother tongue are being developed and resource teachers are observing classroom practice. The textbooks are being evaluated and revised.

Results

There have been many teething problems; the sudden departure of a supportive official; the lack of understanding and support among the middle level officials; liaison between different government departments to name just a few. However, the programme in several states is now beginning to be institutionalised. Cooperation between departments and developing structures to ensure the continuity of the programme are being put in place.

The results in places where materials are available in the schools and teachers have received training, have been positive. Children are coming to school and staying there. They no longer run away or only stay until the completion of the midday meal. They are learning to read and write more quickly and sharing their learning with their parents at home. Parents are happy with their children's progress in reading and writing and are enjoying being able to share in this learning. Parents themselves feel they could easily learn to read and write and are requesting adult learning classes. Parents feel that their own values and culture are not being ignored, but are being passed on to their children.

Where only the textbooks are being used and traditional teaching methods are being maintain; where the reading materials are not being used, either because of lack of training, or the materials have not reached the classroom, the results are less than satisfactory. Children cannot read 1st and 2nd grade materials fluently, even though they are in MT (Bailey, 2007). This small study, which may not be representative of the whole programme, shows that real reading materials are essential for developing reading fluency.

The MLE programmes in India are only just at the beginning, but even in a short time in many places there has already been positive progress and an improved situation for the tribal children. A further test of the programme will come when the children transfer into secondary school where the medium of instruction will be the second language. If, as the research suggests, it requires between 5 and 7 years to know the second language well enough in order to be able to use it as a medium of instruction, support right through pre- and primary and on into Secondary school will be essential for mother tongue speakers of minority languages to succeed in the current system.

The issues of linguistic and cultural rights for minority language communities will be partially addressed through the inclusion of mother tongues in education. Other problematic social and economic issues may also then be eased.

Long term research and evaluation is required in order to find more answers and improve the learning situation of the children of the 80 million tribal people of India.

ABREVIATIONS

L2 Second Language
MLE Multilingual Education

MT Mother Tongue

NCERT National Council for Education, Research, and Training

NCF National Curriculum Framework

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APPX 2: Gondi first stage class reading book (with translation)

FC	రజ్ రజ్ నంగ్ పతంగ్క్-	రజ్ రజ్ నంగ్ పతంగ్క్	rań rań nang patangk	Different Coloured Kites
1	రజ్ రజ్ నంగ్ పతంగ్క్ కొమ్మంగ్ల లక్ష అని కథ రదన: కి. యారవరాఫ్, అపియు డేవీరాఫ్ నేట: 17.07.006 గోండి భాష, ఉమ్మాన్	బొమ్మంగ్జ్ చిత్ర అని కథ రచన: కే. యాదవ్రావ్, అని యం. దేవ్రావ్ తేది: 27.09.2006 గోండి ఖాష, ఉట్నూర్	bommang citra ani katha racana: kē. yādav rāv, ani yam. dēv rāv tēdi: 27.09.2006 gōnģi bhāṣa, uṭnūr	Pictures and story by: K. Yadav Rao and M. Dev Rao Date: 27.09.2006 Gondi language, Utnoor
3		ఉంది పతంగి రగ్గల్. ఉండె ఉంది బొడల్. ఉండె ఉంది విల్లల్.	undi patangi raggal. unde undi bodal. unde undi cillal.	One kite is red. And one is yellow. And one is green.
5		రామున పతంగి రగ్గల్. బొజ్జన పతంగి బొడల్. బిన్ను న పతంగి చిల్లల్.	rāmuna patangi raggal. bojjuna patangi bodal. cinnuna patangi cillal.	Ramu's kite is red. Boju's kite is yellow. Chinu's kite is green.

7	A Dan	రామున రగ్గల్ పతంగి పొర్రొ. బొజ్జన బొడల్ పతంగి నడ్డుం. బిన్నున బిల్లల్ పతంగి బుడ్.	rāmuna raggal patangi porro. bojjuna boḍal patangi naḍḍum. cinnuna cillal patangi buḍ.	Ramu's red kite is [at the] top. Boju's yellow kite is middle. Chinu's green kite is bottom.
9	↑ 🏂	రామున రగ్గల్ పతంగి ముర్ పుంగ్జార్ మొడి.	rāmuna raggal patangi mur puñār moḍi.	Ramu's red kite is like flame of the forest flower.
11		బొజ్జన బొడల్ పతంగి పొడ్డు పుంగ్జార్ మొడి.	bojjuna bodal patangi poddu punār modi.	Boju's yellow kite is like a sunflower.
13	A SA	బిన్నున బిల్లత్ పతంగి రాగొత్ మొడి.	cinnuna cillal patangi rāgot modi.	Chinu's green kite is like a parrot.

Appendix 1: A helpful tool for looking at the requirements for sustainability

Research that provides in formation about:

•Language attitudes and uses in the community

•The community's identified go als, needs and problems

•Resources for the programme

Mobilization activities that generate interest and support for the program within and outside the community (go vernment, NGOs, universities, donors, businesses Recruitment methods that bring motivated, knowledgeable and respected individuals into the program (and keep them there)

On-going **T-training** and supervision that helps all staff members gain competence, creativity, commitment and credibility both within and outside the community

Language and education policies that affirm and protect ethnic minority languages and support the use of minority languages in education

A system for obtaining, distributing, accounting for and reporting on **funding** for the program

A documentation and evaluation system that regularly provides information for strengthening the

pro gram and for reporting to other

stakeholders (e.g., government,

don ors)

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A process of developing and testing an **orthograp hy** that is acceptable to the majority of stakeholders and promotes ongoing reading and writing in the language

A process for developing, testing and revising curricula and instructional methods that are relevant and appropriate in the ethnic minority community

A management and coordination system that emphæsizes networking and partnerships within the community and with agencies and organizations outside the community A system for writing,
illustrating, editing, producing,
storing, distributing and
evaluating minority language
literature for the different
reader groups in the community