

# PILOTING MOTHER TONGUE- BASED MULTILINGUAL EDUCATION IN MADHYA PRADESH

Endline  
Results and  
Comparison  
with the  
Baseline



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**Endline Results and Comparison  
with the Baseline**

**RESEARCH AND WRITING**

Rakesh K Singh

**SUPPORTIVE SUPERVISION**

Resmi P. Bhaskaran

**COORDINATION**

Nivrita Durgvanshi and Baliram Balsaraf

**EDITORIAL INPUTS**

Neha Chhetri

**DATA COLLECTION**

Team Jan Aakash



**New Education Group- Foundation for Innovation  
and Research in Education (NEG-FIRE)**



**Rajya Shiksha Kendra, Sarva Shiksha Abhiyan,  
Government of Madhya Pradesh**

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## CONTENTS

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<b>Acknowledgements</b>	<b>5</b>
<b>List of tables</b>	<b>7</b>
<b>List of figures</b>	<b>7</b>
<b>Glossary</b>	<b>8</b>

### SECTION-1

## INTRODUCTION 9

- 1.1 Background
- 1.2 MT-Based MLE in India
- 1.3 NEG-FIRE and MT-Based MLE

### SECTION-2

## OBJECTIVES AND METHODOLOGY 11

- 2.1 Objectives
- 2.2 Research Questions
- 2.3 Methodology
- 2.4 Study Area
- 2.5 Data Analysis
- 2.6 Limitations of the Study

### SECTION-3

## MAIN FINDINGS 15

- 3.1 Classroom Observations
- 3.2 Availability of MT-Based MLE Material
- 3.3 Classroom Transaction
- 3.4 How Supportive Teachers are to Children?
- 3.5 Innovative Teaching Practices
- 3.6 Teachers and MT-Based MLE
- 3.7 Children's Learning Assessment

### SECTION-4

## CONCLUSION AND RECOMMENDATIONS 27

- 4.1 Conclusions
- 4.2 Recommendations

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<b>Bibliography</b>	<b>29</b>
<b>Annexure</b>	<b>30</b>



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**I**n collaboration with RSK, Government of Madhya Pradesh (GoMP), NEG-FIRE has developed a set of MT- based MLE material in the tribal language of Gondi. To test its impact, the pilot testing of the MLE material took place in 30 government schools of Mandla and Dindori districts of Madhya Pradesh in 2014- 2015. The report of the pilot testing is now presented.

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Vengatesh Krishna  
EXECUTIVE DIRECTOR, NEG-FIRE



## LIST OF TABLES

<b>1</b>	Sample Size of Schools, Children and Teachers
<b>2</b>	Sample Spread
<b>3</b>	Ranking of Dindori and Mandla by Percentage of ST Population: 1991-2011
<b>4</b>	Language Used by Teachers
<b>5</b>	Language Used by Children
<b>6</b>	Availability of MT-Based MLE Material
<b>7</b>	Classroom Communication among Children
<b>8</b>	Classroom Communication with Children
<b>9</b>	Classroom Transaction: Some Other Dimensions
<b>10</b>	Teachers' Supportive Response
<b>11</b>	Innovative Practices in Classrooms
<b>12</b>	General Profile of Teachers
<b>12A</b>	Teachers' Opinion on MT-Based MLE
<b>14</b>	MT-Based MLE Skills of Teachers
<b>15</b>	Communication with Children in Gondi
<b>16</b>	Use of MLE Materials by Teachers
<b>17</b>	Learning Assessment of Children by Class
<b>18</b>	Learning Assessment of Children by Gender

## LIST OF FIGURES

<b>1</b>	Schools in Mawai and Samnapur
<b>2</b>	Enrolment in Samnapur and Mawai
<b>3</b>	Language Used by Teachers (%)
<b>4</b>	Language Used by Children (%)
<b>5</b>	Availability of MT-Based MLE Material
<b>6</b>	Use of MLE Materials by Pilot School Children (%)
<b>7</b>	Classroom Transaction among Children (%)
<b>8</b>	Classroom Transaction with Teacher (%)
<b>9</b>	Communication with Children in Gondi (%)
<b>10</b>	Use of MLE material by teachers (%)

## GLOSSARY

<b>FGD:</b>	Focus Group Discussion
<b>GCE:</b>	Global Campaign for Education
<b>MLE:</b>	Multilingual Education
<b>MT:</b>	Mother Tongue
<b>MT-Based MLE:</b>	Mother Tongue-Based Multilingual Education
<b>MTBE:</b>	Mother Tongue-Based Education
<b>NCERT:</b>	National Council for Education Research and Training
<b>NCF:</b>	National Curriculum Framework
<b>NEG-FIRE:</b>	New Education Group-Foundation for Innovative and Research in Education
<b>NGO:</b>	Non- Governmental Organization
<b>RTE:</b>	Right to Education
<b>SSA:</b>	Sarva Shiksha Abhiyan
<b>ST:</b>	Scheduled Tribe
<b>TLM:</b>	Teaching Learning Material
<b>UNESCO:</b>	United Nations Educational, Scientific and Cultural Organization
<b>UNICEF:</b>	United Nations Children's Fund



SECTION-1

# INTRODUCTION



**1 BACKGROUND**  
Today, we know for certain that bilingualism or multilingualism confers definite cognitive advantages (NCF, 2005). Studies after studies have shown that children who receive schooling in their mother tongue language in early grades have better learning outcomes overall and, in particular; significantly better literacy levels (GCE, 2013). By the time

children are initiated to school, they do gain confidence in their ability to communicate meaningfully in their mother tongue. The language, knowledge and experience that children bring to school form an important foundation for their learning in the classroom (Susan Malone, 2007).

An education system that fosters instruction mainly in the language

of the dominant group greatly disadvantages minorities and marginalized communities, denying them their right to quality education (Kagure Gacheche, 2010). A learner's ethnolinguistic heritage, which refers to the ethnic and speech community the child is born into, determines the degree to which they will have interacted with and have access to the language of the dominant group (Benson 2004). When pre-existing pockets of marginalisation, poverty, or poor teaching quality intersect with schooling in an unknown language, children may never make it to school (GCE, 2013).

Realizing the importance of mother tongue-based multilingual education (MT-Based MLE)<sup>1</sup>, UNESCO, UNICEF and many other international organizations have been actively promoting and supporting it as a practical step to improve the quality of education by building upon the knowledge and experience of the learners and teachers. MT-Based MLE is being promoted also as a means of improving reach of education, promoting both social and gender

<sup>1</sup>Discussions relating to MT-Based MLE in India refer to bilingual education across multiple language communities - students of each community using their own mother tongue and the official school language as Languages of Instruction (LoI) in school.

equality and ensure respect for fundamental rights (Catherine, 2011).

## 1.1 MT-Based MLE in India

India is home to a large number of indigenous ethnic minorities. With a population of 121 crores (Census 2011), 122 languages (3372 mother tongues) and 22 major languages recognised as national languages, there are 613 tribal communities who speak around 304 mother tongues. Recognizing the need for special efforts to protect the interests of the linguistic minorities, **Article 350 A of the Indian Constitution** states:

*“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 to children belonging to linguistic minority groups.”*

The Indian education system officially follows the 3-language formula<sup>2</sup> in an attempt to address the challenges and opportunities of the linguistic wealth in the country. **The National Policy on Education adopted in 1986** states that home languages of children should be the medium of learning in schools. Education in mother tongue is also recommended in **the National Curricular Framework, 2005** and **the Right of Children to Free and Compulsory Education Act, 2009**.

The issue has captured the attention of some of the state governments, which have begun to experiment with bilingual education programmes in languages other than the official state language. Since 2004 and 2007, MT-Based MLE has been introduced in Orissa and Andhra Pradesh, where around 5.7 per cent and 9.2 per cent of India’s total tribal population resides, respectively (Census 2011). However, such efforts are far too few to reach the vastly diverse minority linguistic groups whose number run in thousands.

In a number of states, there is still no provision for education in mother tongue to the children belonging to tribal and minority language groups. They continue to receive education

through a language different from their mother tongue. Further, quite often even facilities for learning their mother tongue are absent for most of these ethno-linguistic groups because they do not find a place in the 3-language formula adopted as the national policy for language learning in schools.

## 1.2 NEG-FIRE and MT-Based MLE

In 2007, NEG-FIRE conducted a study to identify the issues and status of children in interstate border areas, where children are at high risk. The study<sup>3</sup> highlighted incongruence between the medium of instruction and the mother tongue of tribal communities as a major deterrent to the education of tribal children. When tribal children cannot understand what the teacher is saying (due to the medium of instruction being the official language of the state), it destroys their chances of learning, resulting in increasing drop-outs and loss of self-esteem, in general. The study reveals that in such conditions, if children are provided initial/primary education in their mother tongue in early years and then they are exposed to a new language, they will perform better in school.

Based on the findings of the study, NEG-FIRE conceptualised and developed its Interstate Border Area Programme to address the language and other issues of children located at interstate border areas. One of the important components of this program is to promote MT-Based MLE for children of tribal communities. Currently, NEG-FIRE is working in four interstate border locations covering 210 villages in 8 states.

### 1.2.1 MT-Based MLE

With active participation and support of state governments, linguistic departments, local NGOs, National MLE Consultant Support Group and tribal communities, NEG-FIRE has developed and designed MT-Based MLE materials in 12 tribal languages for communities living in 7 states of Bihar, Jharkhand, Andhra Pradesh, Uttar Pradesh, Odisha, Madhya Pradesh and Chhattisgarh for Class

I to III. While resource teams for each language group have already been formed, training is going on for language and curriculum development.

In Madhya Pradesh, NEG-FIRE has developed a set of three books in Gondi and Hindi targeting children in 4- 7 age group. The first book contains illustrations and words in Gondi-Hindi from children’s surroundings; the second comprises of selected stories and poems translated in Gondi from children’s text book and the third is a reference book for teachers to help those teachers who don’t know Gondi language and also improve their communication in the classroom. Rajya Shiksha Kendra, a Madhya Pradesh Sarva Shiksha Abhiyan Unit, granted permission to NEG-FIRE to pilot test its MLE material in 30 government schools in Mandla and Dindori districts of Madhya Pradesh.

As part of the pilot test, NEG-FIRE, in association with Rajya Shiksha Kendra, GoMP conducted two rounds of training for 30 primary school teachers from 30 pilot schools of Mandla and Dindori. While the first round of training was organized during September 22-24, 2014 at Mawai, Mandla and September 25-27, 2014 at Samnapur, Dindori, the follow-up training was organized during January 20-21, 2015 at Mawai, Mandla and January 22-23, 2015 at Samnapur, Dindori. The objectives of the training were to build capacity of school teachers in using MT-based material; pedagogy to enhance teaching-learning transactions in classrooms and the vocabulary and language proficiency of Class I and II children in pilot schools.

It is in the above context that the present pilot study of MT-Based MLE in Madhya Pradesh is located. It examines the effectiveness of the MT-Based MLE intervention of NEG-FIRE in 30 pilot schools in Dindori and Mandla districts of Madhya Pradesh.

<sup>2</sup>The formula envisages that every child will learn the mother tongue or regional language, Hindi and English as part of school education

<sup>3</sup>NEG-FIRE and CORD (2010), *Schooling for Children in Interstate Border Areas: Visakhapatnam District in Andhra Pradesh and Koraput District in Orissa*, New Delhi

SECTION-2

# OBJECTIVES AND METHODOLOGY



**2.1 OBJECTIVES** The overall objective of the study is to assess the effectiveness of the MT-Based MLE and related material on the understanding, acceptance and skills of school teachers, implementation of MT-Based MLE and learning abilities of Class I and II children in pilot schools.

**2.1.1 Specific Objectives** The specific objectives of the study are:

1. To study the understanding and acceptance of school teachers about MT-Based MLE and materials
2. To study the skills of school teachers in MT-Based MLE and usage in classroom, and
3. To study progress in learning abilities of children of Class I and

II with the use of MT-Based MLE in classroom

**2.2 RESEARCH QUESTIONS** More specifically, the study looks at the following aspects:

1. What is the perception of school teachers about MT-Based MLE?
2. What are the skills of school teachers on MT-Based pedagogy practices?
3. To what extent do school teachers apply MT-Based pedagogy practices in classrooms?
4. What is the status of classroom transaction (communication/ interaction between teachers and children, and among children)?
5. What are the age-appropriate learning abilities of children of Class I and II in schools?

**2.3 METHODOLOGY** The methodology involves a triangulation method for data collection, using both quantitative and qualitative techniques to assess present pedagogy/ classroom transaction processes and learning ability of children, who participated in the pilot testing of the MT-Based MLE at two points in time (pre and post intervention period), in the form of

**TABLE-1: SAMPLE SIZE OF SCHOOLS, CHILDREN\* AND TEACHERS**

From	Schools	Children* (Class I and II)		Teachers
		Baseline	Endline	
Pilot schools	15 (7+8) (Mandla-7, indori-8)	195	162	15 (7+8)
Control schools	15 (7+8) (Mandla-7, indori-8)	153	122	15 (7+8)
Total	30	348	284	30

\* All children present in classrooms

**TABLE-2: SAMPLE SPREAD**

Sl.	Target Respondent	Methodology	Research Tool	Sample Size
1	Children	Quantitative & qualitative	· Structured observation tool · ASER tool	All Class I and II children present
2	Teachers	Quantitative & qualitative	· Structured observation tool · Questionnaire · FGDs	30

baseline and endline surveys.

Accordingly, data was collected from two groups – intervention/ pilot and control groups, at two points in time – pre-intervention and post-intervention. To ensure the socio-economic and cultural similarities, the list of schools from control areas provided by Rajya Shiksha Kendra, GoMP were from the same localities.

**2.3.1 Sampling**

Using a purposive sampling method, a total of 30 schools- 15 each from intervention/ pilot and control areas (Annexure-1), involving 30 schools teachers and children of Class I and II present, were selected by Rajya Shiksha Kendra from Mandla and Dindori districts of M.P., as per Table- 1.

**2.3.2 Sample Spread of Target Respondents**

The segmentation of target respondents and sample spread of the baseline and endline are illustrated in Table- 2.

**2.3.2 Research Tools**

The study employed a combination of quantitative and qualitative/ observation tools (Teacher Interview Schedule, Classroom Observation Tool & FGDs) to assess perception and skills of school teachers about MT-Based MLE, pedagogical/ classroom transaction processes and learning ability of children, who participated in the pilot test.

**2.4 STUDY AREA**

The study is confined to Mawai block in Mandla and Samnapur block in Dindori district of Madhya Pradesh. The official language of Madhya Pradesh is Hindi. However, there are about 43 scheduled tribes with their own dialects. Most of these tribal linguistic groups do not have a script of their own.

In terms of tribal population, Dindori and Mandla are the 4th and 5th largest districts of Madhya Pradesh, with a presence of nearly 64.7 and 57.9 per cent of tribal population, respectively. The major tribal groups in Dindori and Mandla districts are Gond, Baiga and Koal. The

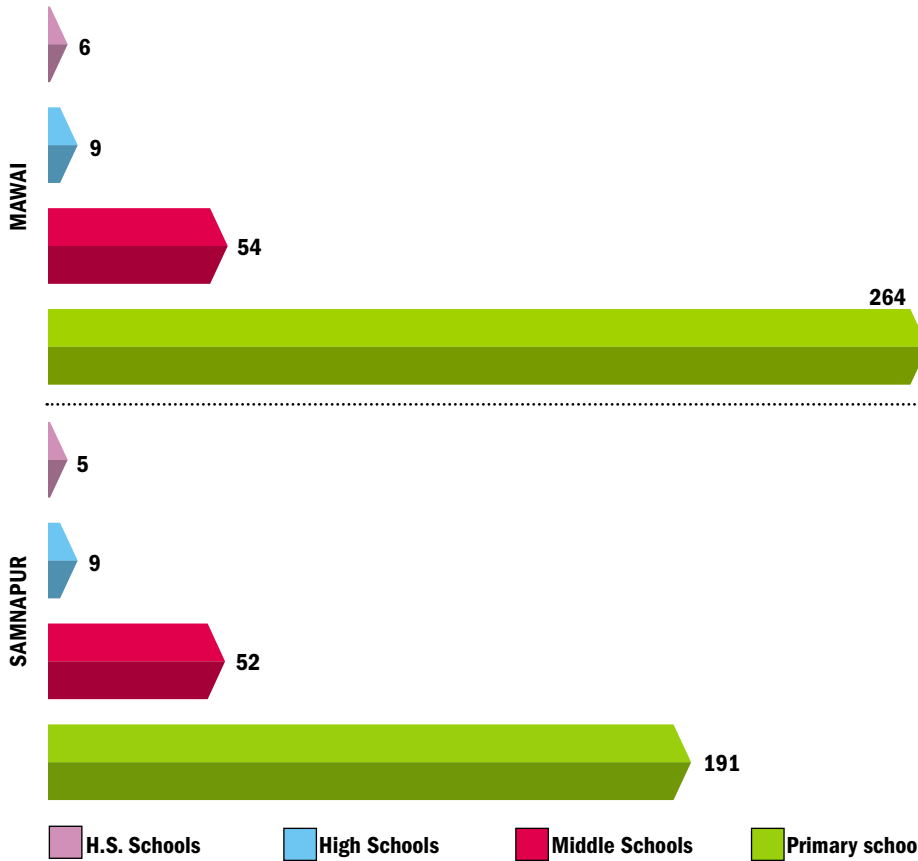


**TABLE-3: RANKING OF DINDORI AND MANDLA BY PERCENTAGE OF ST POPULATION: 1991-2011**

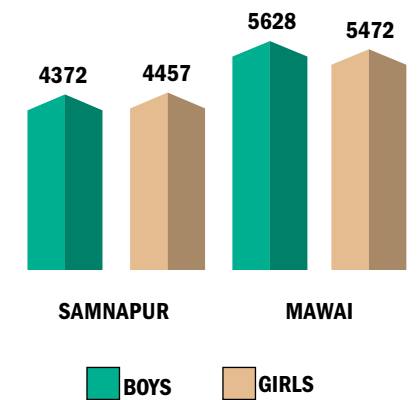
Rank 2011	% of ST Population(2011)	District	% of ST Population(2001)	% of ST Population(1991)
4	64.7	Dindori	64.5	65.3
5	57.9	Mandla	57.2	57.9
	21.1	Madhya Pradesh	20.3	19.9

Source: Census 2011

**FIGURE 1: SCHOOLS IN MAWAI AND SAMNAPUR**



**FIGURE: 2 ENROLMENT IN PRIMARY CLASSES**



Source: Data generated from [www.mp.gov.in/educationportal](http://www.mp.gov.in/educationportal) (Date-15/02/2015)





profile of tribal population in the two districts is given in Table-3.

There are total 338 schools in Mawai block with 264 primary schools, 54 middle schools, 9 high schools and 6 higher secondary schools. Total enrolment of children in primary classes is 11100 out of which 5628 are boys and 5472 girls. On the other hand, Samnapur block has total 257 schools with 191 primary schools, 52 middle schools, 9 high schools and 5 higher secondary schools. Total enrolment of children in primary classes is 8829 out of which 4372 are

boys and 4457 girls. (Fig. 1).

## 2.5 DATA ANALYSIS

Since it is a two-point study covering baseline and endline, a lot of statistical analysis was not required. Nevertheless, SPSS has been used to make whatever quantitative analysis was felt necessary from the point of view of the study. Accordingly, tables and charts have also been prepared as per the study requirements, with adequate explanation of the same. The qualitative information, however, was synthesized through content analysis.

## 2.6 LIMITATIONS OF THE STUDY

Children of Class I and II, amongst the main respondent groups of the baseline and endline surveys, were too young to be interviewed. Their response, therefore, has been captured only through classroom observation techniques, which have their own limitations regarding identification, control, manipulation and generalisation of specific teaching-learning outcomes by skipping and/ or altering selected aspects of children's overt behaviour. Sometimes it can interfere with the drawing of valid inferences about what normally occurs in the classroom.

The time lag between baseline and endline surveys is only about four (4) months, which is normally too short a time to capture the entire range of changes resulting out of pilot testing/ intervention.

The teachers interviewed during the baseline and endline also consist of a few para teachers teaching Class I and II, who have not been part of either of the two rounds of teacher training. Expecting such untrained teachers to implement MT-Based MLE in their classrooms and have MT-Based skills is somewhat unfair.

The study is confined only to Mawai block in Mandla and Samnapur block in Dindori district of Madhya Pradesh. Its outcome, therefore, cannot be generalised for the country as a whole.

SECTION-3

# MAIN FINDINGS



**3.1 CLASSROOM OBSERVATIONS** Direct observation of classrooms is one of the better methods available for studying how teachers teach, how children learn and what teaching-learning improvements are visible - the central focus of this study. The outcomes of classroom observations in terms of language used by teachers and children, availability and use of MT-based MLE material and classroom transactions/communications are described below.

**3.1.1 Language Used by Teachers** At the age of 5 - 6 when children join school, they talk in their mother tongue in routine daily lives and face-to-face situations. They express themselves in the present context

**TABLE-4: LANGUAGE USED BY TEACHERS**

LANGUAGE	BASELINE			ENDLINE		
	Pilot School	Control School	N	Pilot School	Control School	N
HINDI	12	12	24	1	9	10
MOTHER TONGUE	0	0	0	0	0	0
BOTH	3	3	6	14	6	20
TOTAL	15	15	30	15	15	30

LANGUAGE USED BY TEACHERS %

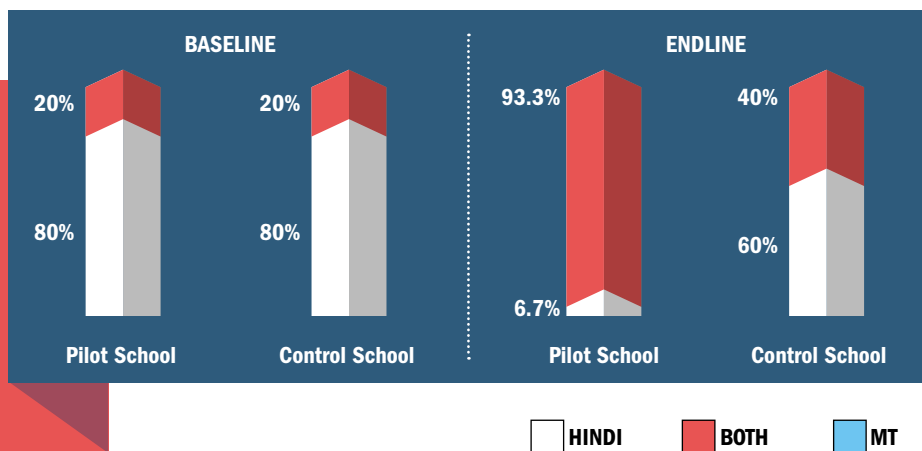


FIGURE: 3

LANGUAGE USED BY CHILDREN %

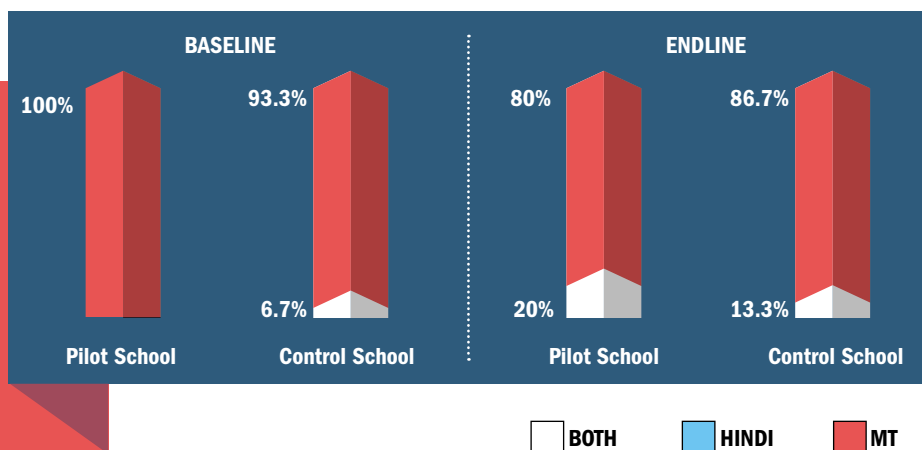


FIGURE: 4

using the mother tongue to talk about what they experience, see, hear and touch. Therefore, the basic tenet of MT-Based MLE is – children should be taught in their mother tongue/ local language in primary classes. One of the classroom observations consisted of an inquiry as to what is the medium of instruction in the classrooms, i.e., whether primary school teachers use Gondi (local language) or Hindi, the official language of Madhya Pradesh, or both in classrooms. The results are described in Table-4.

During the baseline, around 12 out of 15 teachers (80%) in each of the pilot and control group schools were observed using Hindi as medium of instruction. Only 20 per cent teachers taught children both in Hindi and Gondi. As it came out from Focus Group Discussions (FGDs) with teachers, both at Mawai and

Samnapur, it was so because: ‘The entire syllabus is in Hindi. Teachers are inclined to use Hindi as a medium of instruction in order to acquaint children with Hindi and enhance their understanding by repetitively using the language’. Surprisingly, many of the teachers with tribal background, both in the pilot and control areas, were also inclined using Hindi as medium of instruction. They thought that ‘if children are not taught in Hindi, the official language of the State or if they are taught in Gondi and Hindi both, they would have problems in becoming proficient in Hindi later on.’

The endline data reveals a higher proportion of pilot school teachers (93.3%) use both Hindi and Gondi as medium of instruction as compared to the control school teachers (40%) (Fig.3). This means that the training of pilot school teachers on basic

understanding of MLE and skills to conduct MLE class for Class I and II, followed by dissemination of MLE materials among children and teachers and implementation of MLE in classrooms seem to have had a positive impact on the language used by teachers.

### 3.1.2. Language Used by Children

Since children can clearly express their needs and simple thoughts in their mother tongue, the overwhelming majority of them continued using it, both in the pilot (80%) and control (86.7%) schools in the endline (Table-5 and Fig-4). Not surprisingly, in none of the pilot or control schools, children were observed using Hindi exclusively.

In some of the pilot (20%) and control schools (13.3%), children, because of their gradual exposure to Hindi were observed using both mother tongue and Hindi in classrooms. The reason could also be somewhat traced to implementation of MT-Based MLE in pilot schools. As one of the pilot school teachers admitted during the endline FGD held at Mawai, Mandla, “introduction of MT-Based MLE in school has resulted in better learning environment for Class I and II tribal children. Not only do they (children) understand words, objects and symbols in mother tongue easily, but making them understand Hindi words has also become easier. Now they can relate many such Hindi words and sentences to their mother tongue-related words and sentences.”

## 3.2 AVAILABILITY OF MT-BASED MLE MATERIAL

Availability of good MT-Based learning/ MLE materials, written in a language and with a context that is relevant to children is important. Needless to say, a lack of such materials has a profound negative effect on children’s learning and on literacy achievement levels (GCE, 2013). A part of the classroom observations was, therefore, devoted to availability of MT-Based MLE materials in classrooms.

As expected, in none of the 30 schools (15 each from the pilot and



TABLE-5: LANGUAGE USED BY CHILDREN

LANGUAGE	BASELINE			ENDLINE		
	Pilot School	Control School	N	Pilot School	Control School	N
MOTHER TONGUE	15	14	29	12	13	25
HINDI	0	0	0	0	0	0
BOTH	0	1	1	3	2	5
TOTAL	15	15	30	15	15	30

FIGURE: 5 AVAILABILITY OF MT-BASED MLE MATERIAL (%)

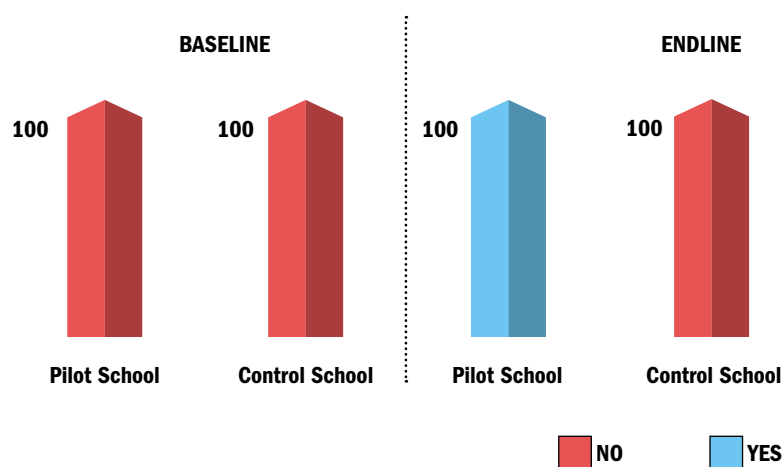
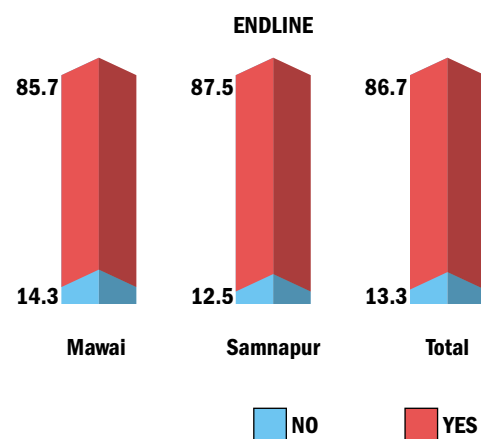


FIGURE 6: USE OF MLE MATERIALS BY PILOT SCHOOL CHILDREN (%)



control schools), there was any trace of MT-Based learning/ MLE materials during baseline (Table-6, Fig-5). This is primarily because there was neither any MLE programme in operation nor was there any official MT-Based materials developed either by NEG-FIRE or any other organization before the MT-Based MLE intervention. Post the MLE pilot testing and distribution of MLE materials among teachers and children of Class I and II in pilot schools, almost all such 15 pilot schools (100%) were found to be in possession of the MT-Based MLE material as developed and designed by NEG-FIRE. In contrast, all the control schools continued to be devoid of any such materials.

**3.2.1. Use of MLE Material by Children**

Availability of MT-Based MLE materials with the children is just one of the many critical conditions for

the success of any MLE intervention. Unless children are willing and able to use the available MLE materials in classrooms (age- appropriately), success of any such intervention would remain questionable. The endline data shows that in the majority of the pilot schools (85.7% in Mawai and 87.5% in Samnapur blocks) children used MLE materials (in terms of either opening the MLE books or at least glancing through them), thus helping to further strengthen NEG-FIRE’s MLE intervention in the region (Fig.6).

However, it is worth mentioning here that use of MLE materials by children was not found uniform across all 15 pilot schools. In a couple of pilot schools, MT-Based MLE material or books with Class I and II children were brand new, meaning that children were either not using them regularly or maybe the books

were distributed only recently. In other words, use of MLE materials by children seemed rather limited – they appeared to be just show pieces only. Many children were observed to be disinclined to the use of the available MLE materials effectively. Needless to say, use of MLE materials in such cases would always be less than the desired level. This does have the potential to seriously undermine the MT-Based MLE intervention in Samnapur and Mawai.

**3.3 CLASSROOM TRANSACTION**

Classroom transaction exudes both engaged learning and caring teacher- student relationships. It also helps to understand the quality of teaching- learning processes and whether the same is joyful and activity-based or not. In this context, the present study examines classroom transaction in Class I and II in both

**TABLE-6: AVAILABILITY OF MT-BASED MLE MATERIAL**

AVAILABILITY	BASELINE			ENDLINE		
	Pilot School	Control School	N	Pilot School	Control School	N
NO	15	15	30	0	15	15
YES	0	0	0	15	0	15
TOTAL	15	15	30	15	15	30

the pilot and control schools in terms of communication among children, children’s communication with teacher, and other dimensions, such as, whether children follow simple instructions, are vocal, interested in story-telling and can express their wants and desires or not.

**3.3.1 Communication among Children**

The proportion of pilot schools with the majority of children communicating among themselves in the classrooms substantially increased from baseline (27.7%) to endline (86.7%). The comparative increase in the proportion of control schools with hints of healthy communication among children was much lower (an

increase of 27 percentage points only), thus signalling the positive impact of MT-Based MLE pilot testing in the region (Table-7 and Fig.7).

**3.3.2 Communication with Teacher**

The majority of the school going children in the age group of 4-7 do have necessary abilities for social communication or basic interpersonal communication skills and they can clearly express and share experiences, needs and simple thoughts in their mother tongue. Based on classroom observations, pilot testing of MT-Based MLE also seems to have positive impact on communication of children with their teachers.

The proportion of pilot schools

where the majority of children were communicating with their teachers was observed to have recorded a sizable increase from baseline (33.3%) to endline (86.7%). The comparative increase in the proportion of control schools where the majority of children were observed communicating with their teachers was much lower (Table-8 and Fig.8).

**3.3.3 Classroom Transaction: Some Other Dimensions**

The positive impact of MT-Based MLE on some other dimensions of classroom transaction, such as, children following simple instructions, being vocal, interested in story-telling and expressing their wants and desires in Class I and II in the pilot schools, is described in Table-9.

The proportion of pilot schools where the majority of children were following simple directions from teachers simply doubled from baseline (40.0%) to endline (80%). Similar trends were also observed in pilot schools where the majority of children were vocal (26.7% to 73.3%), interested in story telling (13.3% to 40.0%) and expressing wants and desires (26.7% to 73.3%). The results, thus, give support to the belief that MT-Based MLE could prove helpful to the growth of the tribal children and their learning outcomes by bringing

**CLASSROOM TRANSACTION AMONG CHILDREN (%)**

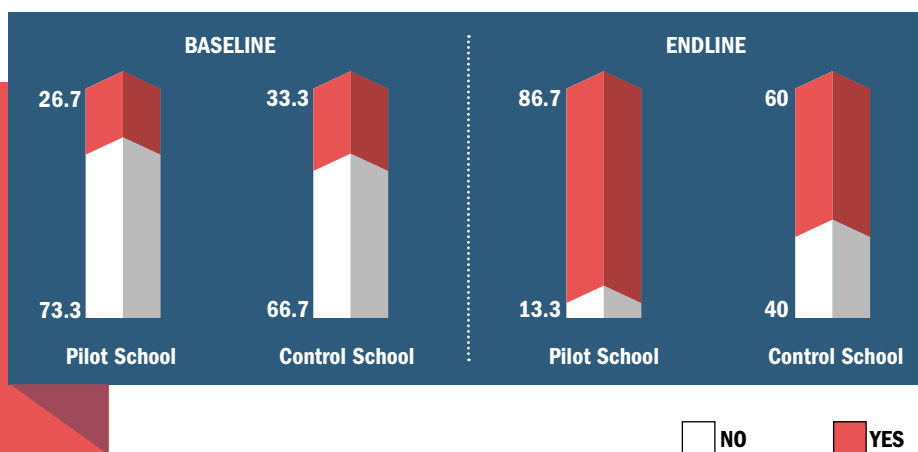


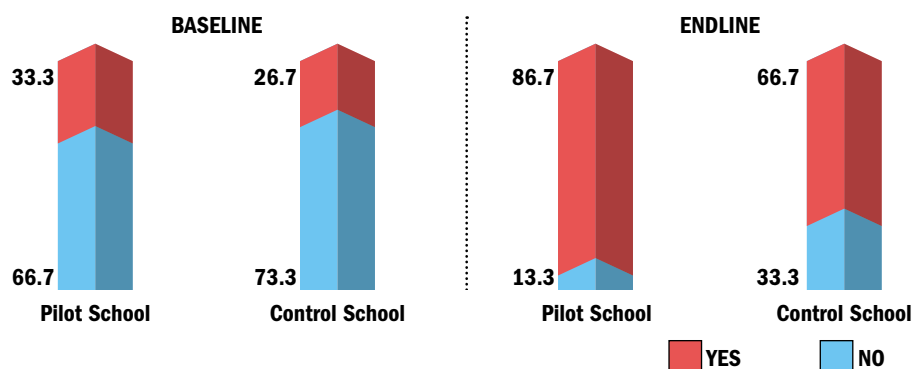
FIGURE: 7

**TABLE-7: CLASSROOM COMMUNICATION AMONG CHILDREN**

COMMUNICATION	BASELINE			ENDLINE		
	Pilot School	Control School	N	Pilot School	Control School	N
NO	11	10	21	2	6	8
YES	4	5	9	13	9	22
TOTAL	15	15	30	15	15	30



FIGURE 8: CLASSROOM TRANSACTION WITH TEACHER (%)



about improvement in schools and classroom transactions.

### 3.4 HOW SUPPORTIVE TEACHERS ARE TO CHILDREN?

Encouraging children to speak, praising the desired response, listening to their verbal and non-verbal messages, being responsive to their queries, etc. are all parts of interactive teaching-learning process, which enables children to boost their confidence and self-esteem. As these are also basic elements of MT-Based pedagogical practices and critical to the success of MT-Based MLE, one of the observations made was on how supportive teachers are to children's response in classroom situations. The results are described in Table-10.

The endline data reveals a higher proportion of pilot school teachers encourage children in classrooms (86.7%), engage all children in class (80%), encourage enquiry from children (66.7%) and are responsive to children's queries (80%). The

TABLE-8: CLASSROOM COMMUNICATION WITH TEACHER

COMMUNICATION	BASELINE			ENDLINE		
	Pilot School	Control School	N	Pilot School	Control School	N
NO	10	11	21	2	5	7
YES	5	4	9	13	10	23
TOTAL	15	15	30	15	15	30

TABLE-9: CLASSROOM TRANSACTION: SOME OTHER DIMENSIONS

SCHOOL TYPE	CHILDREN FOLLOW SIMPLE DIRECTIONS		CHILDREN ARE VOCAL		CHILDREN ARE INTERESTED IN STORY TELLING		CHILDREN EXPRESS WANTS AND DESIRES		N
	B-LINE	E-LINE	B-LINE	E-LINE	B-LINE	E-LINE	B-LINE	E-LINE	
PILOT SCHOOL	6 (40.0)	12 (80.0)	4 (26.7)	11 (73.3)	2 (13.3)	6 (40.0)	4 (26.7)	11 (73.3)	15
CONTROL SCHOOL	5 (33.3)	8 (53.3)	5 (33.3)	7 (46.7)	1 (6.7)	2 (13.3)	3 (20.0)	4 (26.7)	15
TOTAL	11 (36.7)	20 (66.7)	9 (30.0)	18 (60.0)	3 (10.0)	8 (26.7)	7 (23.3)	15 (50.0)	30

B-line=Baseline; E-line=Endline

Figures in brackets represent %age of total

**TABLE-10: TEACHERS' SUPPORTIVE RESPONSE**

SCHOOL TYPE	ENCOURAGES CHILDREN		ENGAGES ALL CHILDREN IN CLASS		ENCOURAGES ENQUIRY FROM CHILDREN		RESPONSIVE TO CHILDREN'S QUERIES		N
	B-LINE	E-LINE	B-LINE	E-LINE	B-LINE	E-LINE	B-LINE	E-LINE	
<b>PILOT SCHOOL</b>	5 (33.3)	13 (86.7)	1 (6.7)	12 (80.0)	2 (13.3)	10 (66.7)	1 (6.7)	12 (80.0)	15 (100)
<b>CONTROL SCHOOL</b>	4 (26.7)	6 (40.0)	0 (0.0)	8 (53.30)	4 (26.7)	5 (33.3)	2 (13.3)	4 (26.7)	15 (100)
<b>TOTAL</b>	9 <b>(30.0)</b>	19 <b>(63.3)</b>	1 <b>(3.3)</b>	20 <b>(66.7)</b>	6 <b>(20.0)</b>	15 <b>(50.0)</b>	3 <b>(10.0)</b>	16 <b>(53.3)</b>	30 <b>(100)</b>

B-line=Baseline; E-line=Endline  
 Figures in brackets represent %age of total

corresponding figures for control school teachers on these indicators (40%, 53%, 33.3% and 26.7%, respectively) are not that impressive. This means that the training of pilot school teachers on MT-based pedagogical practices has resulted in improved teaching-learning processes in pilot school classrooms.

### 3.5 INNOVATIVE TEACHING PRACTICES

As part of the innovative teaching practices, use of Teaching Learning Materials (TLMs), local stories or

anecdotes, and games or plays in classrooms go a long way in making learning an effortless and enjoyable exercise for children. That is why one of the objectives of the MT-Based MLE trainings was to motivate teachers to develop their own TLMs, games and story banks in the local language to be used in classrooms. The results of classroom observations on innovative teaching practices are summarized in Table-11.

The proportion of pilot school teachers using TLMs in classrooms increased sharply from baseline

(20.0%) to endline (73.3%). Similar trends were also observed in pilot school teachers using local stories/ anecdotes (an increase from 26.7% to 80.0%) and games/ plays in classrooms (an increase from 33.3% to 80%). Many of the pilot school teachers were observed to have collected stories and poems which were displayed in classrooms. Some of the pilot school teachers even painted walls to show pictures and bilingual words. Even among control school teachers, use of TLMs, local stories/anecdotes, and games/ plays in classrooms



**TABLE-11: INNOVATIVE PRACTICES IN CLASSROOMS**

SCHOOL TYPE	USE OF TLM IN CLASSROOMS		USE OF LOCAL STORIES/ ANECDOTES		USE OF GAMES/ PLAY IN CLASSROOMS		N
	B-LINE	E-LINE	B-LINE	E-LINE	B-LINE	E-LINE	
<b>PILOT SCHOOL</b>	3 (20.0)	11 (73.3)	4 (26.7)	12 (80.0)	5 (33.3)	12 (80.0)	15 100
<b>CONTROL SCHOOL</b>	2 (13.3)	5 (33.3)	3 (20.0)	4 (26.7)	4 (26.7)	5 (33.3)	15 100
<b>TOTAL</b>	5 <b>(16.7)</b>	16 <b>(53.3)</b>	7 <b>(23.3)</b>	16 <b>(53.3)</b>	9 <b>(30.0)</b>	17 <b>(56.7)</b>	30 <b>100</b>

B-line=Baseline; E-line=Endline  
Figures in brackets represent %age of total

recorded increase between baseline and endline. However, the increase was comparatively low, thus giving support to the belief that training of teachers on MT-Based MLE could promote innovative teaching practices in classrooms.

**3.6 TEACHERS AND MT-BASED MLE** For successful implementation of MT-Based MLE, teachers need to act as a support, rather than a barrier. Much of the empirical evidence, however, suggests that teachers have often negative attitudes towards MT-Based MLE for various reasons (Paulson, 2012). Incorporating the

mother tongue can also be seen as threatening for teachers because they would have to “change what they’re doing in the classroom...it’s a totally different classroom environment, the kids start asking questions, the kids talk back...all kinds of stuff happens,” which changes the way that teaching and learning take place and creates a major role shift from an authoritative figure to facilitator of learning (Bender, as cited in Paulson, 2010). It is in this context that the two rounds of training of 30 pilot school teachers attempted to address some of the major identified challenges teachers face when transitioning into MT-Based

MLE, including negative attitudes. This section investigates profile of pilot and control school teachers and change in their perceptions about MT-based MLE.

**3.6.1 Teachers’ Profile**

At the outset, it is to be noted that an honest effort was made to interview the same set of teachers both during the baseline and endline. However, due to non-availability of some teachers on the date of baseline/ endline, interviews were held with alternate set of teachers, thus resulting in slight difference(s) in the general profile of the teachers during the two points in time.

The endline data shows that the majority of the teachers are male (86.7% in pilot schools and 80% in control schools), trained (93.3% in pilot schools and 66.7% in control schools), permanent (100% in pilot schools and 80% in control schools) and from tribal community (67.7% in each of pilot and control school groups).

Surprisingly, a high proportion of teachers interviewed from the pilot (60%) and control (40%) schools were holding higher secondary degrees only. The proportion of graduate and post graduate teachers was lower in both school types. Needless to say, the educational profile of teachers put a question mark not only on their skills to implement MT-Based pedagogies but also on their perceptions and attitudes on MT-Based MLE.



**TABLE-12: GENERAL PROFILE OF TEACHERS (%)**

	BASELINE		ENDLINE	
	PILOT SCHOOL	CONTROL SCHOOL	PILOT SCHOOL	CONTROL SCHOOL
Male	93.3	73.3	86.7	80.0
Female	6.7	26.7	13.3	20.0
<b>BY COMMUNITY</b>				
Tribal	60.0	73.3	66.7	66.7
Non-Tribal	40.0	27.7	33.3	33.3
<b>BY EDUCATION</b>				
Higher Secondary	66.7	66.7	60.0	40.0
Graduation	26.7	26.7	33.3	40.7
Post-Graduation	6.6	6.6	6.7	13.3
<b>BY TRAINING STATUS</b>				
Untrained	33.3	40.0	6.7	33.3
Trained	66.7	60.0	93.3	66.7
<b>BY EMPLOYMENT TYPE</b>				
Permanent	80.0	66.7	100.0	80.0
Contract	20.0	33.3	0.0	20.0
<b>TOTAL</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>15</b>

**3.6.2 Opinion on MT-Based MLE**

Pilot and control school teachers were asked their opinion on four MT-Based MLE indicators – 1). MT-Based MLE bridges home and school experiences, 2). Children learn best in their mother tongue, 3). MT-Based MLE helps to lay solid foundation for children’s learning, and 4). MT-Based MLE is a way to promote our cultural heritage.

There was a phenomenal increase in proportion of pilot school teachers with a positive opinion on all the four indicators from baseline (66.7%, 73%, 73.3%, and 53.3%, respectively) to endline (100%). The proportion of control school teachers also had improved positive opinion on all these indicators from baseline to endline, but the positivity never touched cent percent level (Table-12A). Thus the pilot intervention and the associated trainings of pilot school teacher have successfully addressed the negative attitudes of in-service teachers towards MT-Based MLE, which is important for its successful implementation. It also implies that teachers are increasingly becoming supporters and facilitators of MT-Based MLE, rather than barriers.

**3.6.3 MT-Based MLE Skills**

Positive opinion of school teachers on MT-Based MLE is just a facilitating condition for its successful implementation. Equally important is that school teachers must have either a specific skill set or they should rather acquire or develop it,



**TABLE-12A: TEACHERS’ OPINION ON MT-BASED MLE**

SCHOOL TYPE	BRIDGES HOME AND SCHOOL EXPERIENCES		CHILDREN LEARN BEST IN THEIR MOTHER TONGUE		HELPS TO LAY SOLID FOUNDATION FOR CHILDREN’S LEARNING		IS A WAY TO PROMOTE OUR CULTURAL HERITAGE		N
	B-LINE	E-LINE	B-LINE	E-LINE	B-LINE	E-LINE	B-LINE	E-LINE	
<b>PILOT SCHOOL</b>	10 (66.7)	15 (100)	11 (73.3)	15 (100)	11 (73.3)	15 (100)	8 (53.3)	15 (100)	15 (100)
<b>CONTROL SCHOOL</b>	9 (60.0)	13 (86.7)	12 (80.0)	13 (86.7)	11 (73.3)	14 (93.3)	8 (53.3)	13 (86.7)	15 (100)
<b>TOTAL</b>	<b>19 (63.3)</b>	<b>28 (93.3)</b>	<b>23 (76.7)</b>	<b>28 (93.3)</b>	<b>22 (73.3)</b>	<b>29 (96.7)</b>	<b>16 (53.3)</b>	<b>28 (93.3)</b>	<b>30 (100)</b>

B-line=Baseline; E-line=Endline  
 Figures in brackets represent %age of total

so that they are well positioned to impart MT-Based MLE to the children. Understanding of local language goes a long way to master MT-based pedagogies, and so is the availability of MT-Based TLM. Training of teachers also helps in sharpening their understanding about MT-Based MLE. It also results in improving their teaching methods. Accordingly, teachers were asked four straight questions – do you understand local language, is there availability of MT-Based TLM in classroom, are you trained in MLE, and do you have knowledge of MT-Based teaching methods or not? The results are described below in Table-14.

There has been perceptible improvement in the understanding of pilot school teachers of local language, i.e., Gondi from baseline (60%) and endline (80%). It implies that pilot school teachers, especially those with non-tribal backgrounds, are making extra efforts for MT-Based MLE. The endline data also shows cent percent availability of MT-Based TLM as supplied by NEG-FIRE through its partners. As against none of the control school teachers have been trained in MLE, whereas almost 86.7 per cent of pilot school teachers claimed to have been trained. Accordingly, the proportion of pilot school teachers with knowledge of MT-Based teaching methods significantly increased from baseline (13.3%) to endline (100%). The underlying theme here is that pilot school teachers do

understand that MT-Based MLE will help children to learn better.

### 3.6.4 Implementation of MLE

As the saying goes, the proof of the pudding is in eating. So the question is – despite all the trainings and availability of MT-Based learning materials, what is the status of implementation of MT-Based MLE in classrooms? To get the answers, teachers were asked two basic questions – do you communicate with children in local language (Gondi), and do you use MT-Based Material in classrooms or not?

#### 3.6.4.1 Communication with Children in Local Language

The baseline had only 2 pilot school teachers (13.3%) who claimed communicating with the children in Gondi. This number increased to 13 (86.7%) in endline. The corresponding

baseline figure for control school teachers who communicated with children in Gondi remained stable at 3 (20%) in endline also, thus indicating the role of training of pilot school teachers and MT-Based MLE pedagogies in promoting greater communication with children in the local language (Table-15 and Fig.9).

#### 3.6.4.2 Use of MT-Based Material by Teachers

Sometimes, if teachers are not convinced of the importance or benefits of MT-Based MLE, they would hardly use the material and pedagogies in classrooms, even if these are readily available with them. This somewhat sabotages implementation of MT-Based MLE in schools/ classrooms. All 30 pilot and control school teachers were therefore specifically asked if they used MT-Based material in classrooms or not.

FIGURE 9: COMMUNICATION WITH CHILDREN IN GONDI (%)

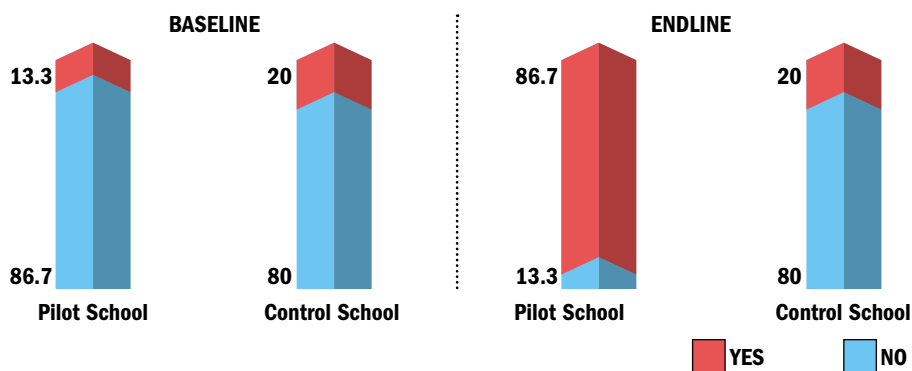


TABLE-14: MT-BASED MLE SKILLS OF TEACHERS

SCHOOL TYPE	UNDERSTANDING OF LOCAL LANGUAGE		AVAILABILITY OF MT-BASED TLM		TRAINED IN MLE		KNOWLEDGE OF MT-BASED TEACHING METHODS		N
	B-LINE	E-LINE	B-LINE	E-LINE	B-LINE	E-LINE	B-LINE	E-LINE	
PILOT SCHOOL	9 (60.0)	12 (80.0)	0 (0.0)	15 (100)	0 (00.0)	13 (86.7)	2 (13.3)	15 (100)	15 (100)
CONTROL SCHOOL	11 (73.3)	10 (66.7)	0 (00.0)	0 (00.0)	0 (00.0)	0 (00.0)	3 (20.0)	6 (40.0)	15 (100)
TOTAL	19 (63.3)	28 (93.3)	23 (76.7)	28 (93.3)	22 (73.3)	29 (96.7)	16 (53.3)	28 (93.3)	30 (100)

B-line=Baseline; E-line=Endline

Figures in brackets represent %age of total

**TABLE-15: COMMUNICATION WITH CHILDREN IN GONDI**

RESPONSE	BASELINE			ENDLINE		
	Pilot School	Control School	N	Pilot School	Control School	N
NO	13	12	25	2	12	14
YES	2	3	5	13	3	16
TOTAL	15	15	30	15	15	30

**TABLE-16: USE OF MLE MATERIAL BY TEACHERS**

RESPONSE	BASELINE			ENDLINE		
	Pilot School	Control School	N	Pilot School	Control School	N
NO	13	13	26	2	13	15
YES	2	2	4	13	2	15
TOTAL	15	15	30	15	15	30

**USE OF MLE MATERIAL BY TEACHERS (%)**

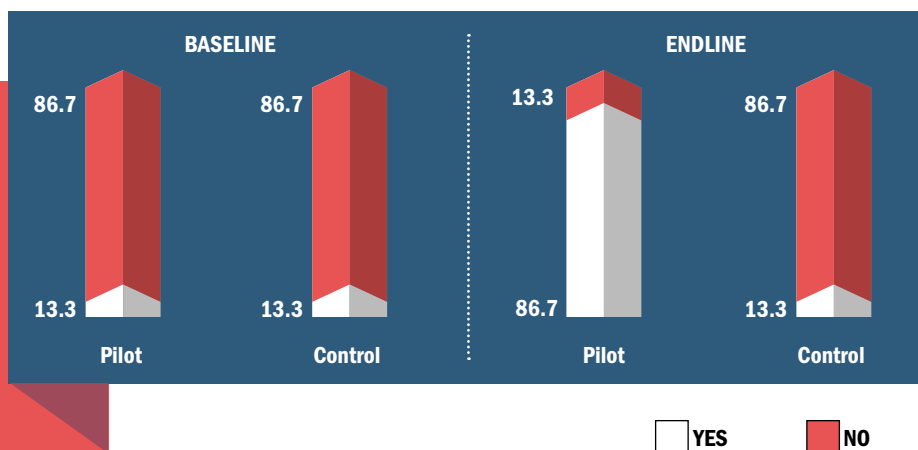


FIGURE: 10

The results are described below in Table-6 and Fig.10.

As expected, the proportion of pilot schools teachers using MT-Based material/ books in classrooms considerably increased from baseline (13.3%) to endline (86.7%). However, there was no such increase in the proportion of control school teachers using MT-Based material/ books in classrooms (Fig.10).

Interestingly, 13.3 per cent of teachers each from pilot and control schools claimed use of MT-Based MLE material/ books even during the baseline, much before the on-going MT-Based MLE intervention by NEG-FIRE and Rajya Shiksha Kendra, GoMP. By the endline, however, use of MT-Based MLE material by pilot school teachers increased to 86.7 per cent. Around 13.3 per cent pilot school teachers were still hesitant, rather disinclined to effectively use the available MT-Based MLE material/ books in classrooms. What is therefore required is a more intensive training and supportive supervision for school teachers, so that all of them become more skilled and duty-bound to implement MT-Based MLE in classrooms.





**TABLE-17: LEARNING ASSESSMENT OF CHILDREN BY CLASS**

SCHOOL/ CLASS	BASELINE SURVEY				ENDLINE SURVEY			
	INITIAL LEVEL	LETTER LEVEL	WORD LEVEL	N	INITIAL LEVEL	LETTER LEVEL	WORD LEVEL & ABOVE	N
<b>PILOT SCHOOL</b>								
<b>CLASS I</b>	90 (88.2)	12 (11.8)	0 (00.0)	<b>102</b> <b>(100)</b>	4 (5.1)	57 (73.1)	17 (21.8)	<b>78</b> <b>(100)</b>
<b>CLASS II</b>	55 (59.1)	33 (35.5)	5 (5.4)	<b>93</b> <b>(100)</b>	6 (7.1)	41 (48.8)	37 (44.0)	<b>84</b> <b>(100)</b>
<b>CONTROL SCHOOL</b>								
<b>CLASS I</b>	63 (87.5)	9 (12.5)	0 (0.0)	<b>72</b> <b>(100)</b>	33 (56.9)	18 (31.0)	7 (12.1)	<b>58</b> <b>(100)</b>
<b>CLASS II</b>	55 (67.9)	19 (23.5)	7 (8.6)	<b>81</b> <b>(100)</b>	23 (35.9)	22 (34.4)	19 (29.7)	<b>64</b> <b>(100)</b>
<b>TOTAL ASSESSED CHILDREN</b>								
<b>CLASS I</b>	153 (87.9)	21 (12.1)	0 (0.0)	<b>174</b> <b>(100)</b>	37 (27.2)	75 (55.1)	24 (17.6)	<b>136</b> <b>(100)</b>
<b>CLASS II</b>	110 (63.2)	52 (29.9)	12 (6.9)	<b>174</b> <b>(100)</b>	29 (19.6)	63 (42.6)	56 (37.8)	<b>148</b> <b>(100)</b>

Figures in brackets are percentage of totals

**TABLE-18: LEARNING ASSESSMENT OF CHILDREN BY GENDER**

SCHOOL/ CLASS	BASELINE SURVEY				ENDLINE SURVEY			
	INITIAL LEVEL	LETTER LEVEL	WORD LEVEL	N	INITIAL LEVEL	LETTER LEVEL	WORD LEVEL & ABOVE	N
<b>PILOT SCHOOL</b>								
<b>BOYS</b>	60 (72.3)	21 (25.3)	2 (2.4)	<b>83</b> <b>(100)</b>	1 (1.4)	44 (60.3)	28 (38.4)	<b>73</b> <b>(100)</b>
<b>GIRLS</b>	85 (75.9)	24 (21.4)	3 (2.7)	<b>112</b> <b>(100)</b>	9 (10.1)	54 (60.7)	26 (29.2)	<b>89</b> <b>(100)</b>
<b>CONTROL SCHOOL</b>								
<b>BOYS</b>	56 (72.7)	16 (20.8)	5 (6.5)	<b>77</b> <b>(100)</b>	26 (43.3)	21 (35.0)	13 (21.7)	<b>60</b> <b>(100)</b>
<b>GIRLS</b>	62 (81.6)	12 (15.8)	2 (2.6)	<b>76</b> <b>(100)</b>	30 (48.4)	19 (30.6)	13 (21.0)	<b>62</b> <b>(100)</b>
<b>TOTAL ASSESSED CHILDREN</b>								
<b>BOYS</b>	116 (72.5)	37 (23.1)	7 (4.4)	<b>160</b> <b>(100)</b>	27 (20.3)	65 (48.9)	41 (30.8)	<b>133</b> <b>(100)</b>
<b>GIRLS</b>	147 (78.2)	36 (19.1)	5 (2.7)	<b>188</b> <b>(100)</b>	39 (25.8)	73 (48.3)	39 (25.8)	<b>151</b> <b>(100)</b>

Figures in brackets are percentage of totals

### 3.7 CHILDREN'S LEARNING ASSESSMENT

To assess the effect of MT-Based MLE on the learning outcomes, a learning assessment of reading skills was administered on children of Class I and II present in pilot and control schools. This was administered using ASER reading assessment tool. The ASER reading assessment tool normally consists of 4 levels: letters, words, a short paragraph (Class 1 level text) and a longer 'story' (Class 2 level text). The child is marked at the highest level, which s/he can do comfortably. The results of the ASER reading assessment of Class I and II children are described below in Table-17.

Baseline data suggests that the vast majority of the pilot school children from Class I (88.2%) and Class II

(59.10%) were at initial reading level. Only 11.8 per cent and 35.5 per cent Class I and II children were at letter level. No one from Class I was assessed to be at word level. The proportion of Class II children at word level was also quite low (5.4%). The corresponding figures for control school children from Class I and II were also quite identical, with just minor variations under different reading levels.

Endline data shows vast improvement in reading levels of children from Class I and II in both, pilot and control schools. However, improvement in reading skills of Class I and II children were more pronounced in pilot schools than in control schools. In fact, the majority of pilot school children from Class I (73.1%) and Class II (48.8%) moved to word level in endline. Endline



also shows a good proportion of pilot school Class I (21.8%) and Class II (44.0%) children entering into word level. Surprisingly, quite a few Class II pilot school children were also assessed to be at paragraph (6%) and story (1.3%) levels.

Learning assessment of pilot school children by gender also shows more or less the same trends of improved learning levels both for boys and girls, from baseline to endline (Table-18). However, learning outcome shows boys are better placed than girls. By the endline, a higher proportion of boys (38.4%) was in the 'Word Level & Above' category than girls (29.2%).

Improved learning outcomes of pilot school children in reading skills, from baseline to endline, thus further corroborate evidences both from India and abroad, which attest to the benefits of learning in mother tongue. For example, a recent longitudinal study on MLE in Andhra Pradesh and Orissa (Panda, 2011) reveals that MT-Based education had a significant effect on children's classroom achievement. In Vietnam also, 68 per cent of grade one students in a mother tongue program achieved the level of excellence compared to only 28 per cent of students not learning in their mother tongue (UNICEF, 2011).

SECTION-4

# CONCLUSION AND RECOMMENDATIONS



This study on MT-Based MLE intervention by NEG-FIRE in Madhya Pradesh was confined to 30 primary schools (15 each from intervention/pilot and control areas), involving 30 school teachers and Class I and II children present from Mawai and Samnapur blocks of Mandla and Dindori districts. The list of intervention and control schools was

selected in partnership with Rajya Shiksha Kendra, GoMP. Employing a combination of quantitative and qualitative/ observation tools (Teacher Interview Schedule, Classroom Observation Tool & FGDs), it made an attempt to assess the effectiveness of the MT-Based MLE and related material on the understanding, acceptance and skills of school

teachers, implementation of MT-Based MLE, and learning abilities of Class I and II children.

## 4.1 CONCLUSIONS

► Training of pilot school teachers on basic understanding of MLE and skills of teachers to conduct an MLE class for Class I and II, followed by dissemination of MLE materials among children and teachers and implementation of MLE in classrooms have had a very positive impact on classroom transactions in terms of communication among children and among teachers as well.

► All 15 pilot schools (100%) were found to be in possession of the MT-Based MLE materials. Pilot school teachers were increasingly using both Hindi and Gondi as medium of instruction. The majority of pilot school children were also observed using such materials in classrooms, thus helping to further strengthen the MLE intervention in the region.

► Post the two rounds of training on MT-Based MLE pedagogies and distribution of MT-Based MLE materials among teachers and children of Class I and II, a higher proportion of pilot school teachers were observed encouraging



children in classrooms, engaging them in classrooms, encouraging enquiry from them and being responsive to children's queries. A higher proportion of children was also observed following simple instructions, being vocal, interested in story-telling and expressing their wants and desires in Class I and II in the pilot schools. This means that the teaching-learning process in pilot school classrooms is fast improving.

- ▶ Between the baseline and endline, there was a phenomenal increase in proportion of pilot school teachers with a positive opinion on MT-based MLE. The majority has started believing that MT-Based MLE bridges home and school experiences, children learn best in their mother tongue, it helps to lay solid foundation for children's learning and is a way to promote our cultural heritage. It implies that teachers are increasingly becoming supporters and facilitators of MT-Based MLE, rather than barriers.
- ▶ Endline data shows vast improvement in reading levels of Class I and II children from both pilot and control schools. However, improvement in reading skills of Class I and II children were more pronounced in pilot schools than control schools. Learning assessment of pilot school children by gender also shows more or less same trends of improved learning levels, both, for boys and girls from baseline to endline.

## 4.2 RECOMMENDATIONS

- ▶ The MT-Based MLE pilot programme in Dindori and Mandla districts of Madhya Pradesh must be continued and extended to all tribal children in the state in a phase-wise manner subject to availability of resources and feasibility conditions.
- ▶ The challenges that school teachers face in an MT-Based MLE classroom require a marked shift in traditional beliefs and practices. Teachers need continued intensive training and supportive supervision. The length and scope of teachers' training also require further boost, so that teachers are able to learn effective teaching strategies, child psychology and better implementation of MT-based MLE.
- ▶ The principles, processes and management of MLE need to be adequately incorporated in the training curriculum of primary school teachers dealing elaborately with strategies, approaches and methods for teaching and learning in MT-Based MLE.
- ▶ Appropriate monitoring mechanism would have to be developed with specific roles and responsibilities to project partners and Govt. officials. Timely academic monitoring of MLE schools along with organizing training, conducting periodic assessments and taking appropriate measures to address gaps and other requirements, etc., have to be incorporated into overall programme structure.
- ▶ Government and the program should work together to make MT-Based MLE a greater success. Government support is needed in provisions such

as teacher deployment and delivery of resources. A joint plan that recruits suitable teachers and provide systematic training is recommended.

- ▶ Involvement of community in developing MT-Based MLE materials and teaching learning processes (e.g., storytelling and dance performance sessions in classes) is an important element of this intervention. However, more intensive community participation is recommended to ensure greater success of MT-Based MLE programme. Community members should oversee each level of activities, including monitoring and supervision. Melas can also be conducted to demonstrate children's performance on curricular and co-curricular areas to the community and the parents.
- ▶ Documentation of case studies, problems and issues will help in taking corrective measures on time. Conducting a longitudinal study/ Action Research in pilot schools to understand progress/ changes overtime both in school functional aspects and outcome indicators is also recommended.
- ▶ Teachers are the critical element determining the success or failure of MT-based MLE intervention. Multilingual teaching learning materials should be provided both to teachers and children on time. Incentives are also recommended to encourage teachers to follow every step needed to make MT-Based MLE a success. It can well be in the form of more recognition and appreciation of their special MT-Based MLE skills.

## BIBLIOGRAPHY

- 1.** Anik Nandi (2013), Bottom-up Language Policy through Mother Tongue-Based Multilingual Education: Voices of the Toto People in India, Heriot-Watt University, UK
- 2.** Catherine, MB Young (2011), Enablers and Constraints of an Effective and Sustainable Mother Tongue-Based Multilingual Education Policy in the Philippines (Ph.D. thesis), Bangor University
- 3.** Global Campaign for Education (2013), Mother-Tongue Education: Policy Lessons for Quality and Inclusion, Johannesburg, South Africa
- 4.** Kagure Gacheche (2010), Challenges in implementing a mother tongue-based language in education policy: Policy and practice in Kenya, POLIS Journal Vol.4, Winter, University of Leeds
- 5.** National Curriculum Framework (2005), National Council for Educational Research and Training, MHRD, Govt. of India, Delhi
- 6.** National Multilingual Education Resource Consortium (2009), Why Mother Tongue-based MLE?, Zakir Hussain Centre for Educational Studies, School of Social Sciences, Jawaharlal Nehru University, New Delhi
- 7.** Panda, Minati (2011), Does MLE Work in Andhra Pradesh & Odisha? A Longitudinal Study, SWARA (NMRC Newsletter), Volume 1, Issue 6-7
- 8.** Paulson Stone, Rebecca (2010), Enhancing learning through the use of mother tongue language: Analysis of the forces for and against mother tongue education, Comprehensive Exam, University of Massachusetts Amherst
- 9.** Paulson Stone, Rebecca (2012), A Professional Development Program for the Mother Tongue-Based Teacher: Addressing Teacher Knowledge and Attitudes about MTBLE (Doctoral Dissertation), University of Massachusetts Amherst
- 10.** Susan Malone (2007), Mother Tongue-based Multilingual Education: Implications for Education Policy, paper presented at the seminar on 'Education Policy and the Right to Education: Towards More Equitable Outcomes for South Asia's Children', 17-20 September, Kathmandu
- 11.** UNESCO (2007), Mother Tongue-based Literacy Programmes: Case Studies of Good Practice in Asia, Bangkok
- 12.** UNESCO (2011), Enhancing Learning of Children from Diverse Language Backgrounds: Mother Tongue-based Bilingual Education in the Early Years, France

## ANNEXURE-1

### LIST OF CONTROL SCHOOLS/ TEACHERS

SN	School Name	Block	Total Children	Teacher's Name
1	Primary Govt. School, Madwa	Mawai	36	Purushottam Lal Vishwakarma
2	Primary Govt. School, Singratola	Mawai	20	Tamalsingh Dhurve
3	Primary Govt. School, Sagaun Chhapar	Mawai	17	Meera Jhariya
4	Primary Govt. School, Rehta Khero	Mawai	61	Shobharam Paraste
5	Primary Govt. School, Bilgaon	Mawai	81	Kamlesh K. Marko
6	Primary Govt. School, Amwar	Mawai	62	Vishram Dhurve
7	Primary Govt. School, Madwa	Mawai	49	Nansingh Dhurve
8	Primary Govt. School, Kanahri	Samnapur	48	A.K. Kusham
9	Primary Govt. School, Khama	Samnapur	45	Shankar Singh Rathore
10	Primary Govt. School, Khama	Samnapur	110	Ganesh Thakur
11	Primary Govt. School, Bejapuri	Samnapur	56	Mohan Singh Paraste
12	Primary Govt. School, Podi	Samnapur	75	B.S.Thakur
13	Primary Govt. School, Chapwar	Samnapur	65	Kamlesh Singh Gosle
14	Primary Govt. School, Kiwad	Samnapur	85	Sudama Singh Uikey
15	Primary Govt. School, Tendutola	Samnapur	70	Pratap Singh

## ANNEXURE-1

### LIST OF CONTROL SCHOOLS/ TEACHERS

SN	School Name	Block	Total Children	Teacher's Name
1	Primary Govt. School, Masna	Mawai	32	Dayakali Dhurve
2	Primary Govt. School, Harratola, Masna	Mawai	21	Vishnu Chhaata
3	Primary Govt. School, Murta	Mawai	35	Sukkh Dhurve
4	Primary Govt. School, Madfa Raiyat (Bhajibola)	Mawai	38	Chhot Singh Maravi
5	Primary Govt. School, Madfa Maal	Mawai	39	Gansiya Baghel
6	Primary Govt. School, Dhubni	Mawai	34	Sukhiya Marawi
7	Primary Govt. School, Salaiya	Mawai	67	Bhaiya Lal Patta
8	Primary Govt. School, Jadasurang	Samnapur	48	B.R. Thakur
9	Primary Govt. School, Dami Titrahi	Samnapur	78	T.L. Dhurbey
10	Primary Govt. School, Dhudera	Samnapur	34	Bhagwati Dhurbey
11	Primary Govt. School, Kutela	Samnapur	23	Satendra Kumar Patel
12	Primary Govt. School, Kevlari	Samnapur	59	T.S. Tilgram
13	Primary Govt. School, Kanchanpur	Samnapur	36	C.L. Dhurbey
14	Primary Govt. School, Banwasi Tola	Samnapur	52	Rohani Prasad Paraste
15	Primary Govt. School, Rasoi	Samnapur	25	I.S. Bilgar

## OUR VISION

NEG-FIRE is a development support organisation that aims to transform the lives of marginalised children through appropriate education and by strategic and dynamic partnership with local NGOs and community groups.

We see every Dalit, Tribal, girl child and those belonging to vulnerable minority to be confident young individuals, by enabling them to relate to the world around them and providing the springboard to embark on higher academic or vocational education in order to build an egalitarian society.

## OUR MISSION

We enable partners to promote quality education for marginalised children resulting in social transformation in India while upholding the values of transparency, accountability, pluralism, equity, justice, peace, and respect for all.



**New Education Group**  
**Foundation for Innovation and Research in Education**  
A-1, Third Floor, Sarvodaya Enclave  
New Delhi- 110017  
Telefax: +91 11 26526570  
Email: [info@negfire.org](mailto:info@negfire.org)  
[www.negfire.org](http://www.negfire.org)



**Rajya Shiksha Kendra, Sarva Shiksha Abhiyan,**  
**Government of Madhya Pradesh**  
B Wing, Pushtak Bhavan, Jail Road,  
Araera Hills, Bhopal,  
Madhya Pradesh 462011