TRANSFORMATIVE POTENTIALS OF MULTILINGUAL EDUCATION MODELS IN ODISHA, INDIA

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Abstract:

The use of children's language in multilingual education (MLE) classrooms creates possibility for the classroom discourse to become socioculturally sensitive and collaborative with more symmetrical power distribution between students and teachers. However, the various models of MLE do not exist as insulated systems of pedagogy. They are in consistent interaction with normative models of pedagogy. The current paper focuses on two theoretically varying MLE models in the state of Odisha (India) and aims to examine whether they are able to effect a transformation in the existing pedagogical models that are largely transmitive, assimilative and characterized by asymmetrical power distribution in the classrooms. Two schools following different MLE approaches were selected for the purpose of in-depth classroom observations and semi-structured interviews with the teachers. The analysis of the data using discourse analysis technique revealed that the MLE approach founded on a 'transition based early exit model' failed to create sufficient tensions in classrooms and was instead observed to get accommodated in the normative non MLE practices. MLE model based on a cultural historical activity theory approach on the other hand, was seen as creating sufficient tensions in the systems they interacted with, leading to a possibility for transformative change in classrooms.

Keywords: multilingual, language pedagogy, sociocultural resources, collaboration, power asymmetry in classrooms, tensions

1. Introduction

The idea of transformation of dominant pedagogic practices into practices that are more socio-culturally sensitive, collaborative and involve a symmetrical distribution of power between students and teachers, emerges from a broader understanding of education as one that must aim to develop a critical consciousness among the learners. The notion of critical consciousness is further situated in the acknowledgement of the society as being

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comprised of multiple groups and communities all positioned differently in terms of their access to power, knowledge resources and their control over knowledge production. However, as Freire (1974) points out, 'our traditional curriculum, disconnected from life, centred on words emptied of the reality they are meant to represent, lacking concrete activity, could never develop a critical consciousness' (pp.33). Thus, for educational programmes to facilitate development of critical consciousness and be transformed from the traditional paradigms of learning, requires that the pedagogic practices be socioculturally situated and include the languages of children.

The multilingual education (MLE) programmes gained prominence as educationists, linguists and human right activists across the world began expressing concern over increasing mismatch between several children's home and school languages (Skutnabb-Kangas, 1984; Ramanathan 2005a, 2005b; Heugh, 2000, 2009; Mohanty, 2008, 2010; Mohanty, Panda & Skutnabb-Kangas, 2009; Yonjan-Tamang, Aikio- Puoskari, 2009; Mohanty, Pal & Panda, 2010 and others). The mismatch was observed to be particularly pronounced in case of children belonging to marginalized ethnic and linguistic communities. The non-exclusion of children's home languages in schools was found to not only obstruct the process of comprehension, but further foreclose or at least limit the possibility of inclusion of socio cultural context of the children in classroom discourses creating an unbridgeable gap between school and home knowledge. The concept of multilingual education and the pedagogic significance of socio-cultural context of children require some elaboration.

1.1 What is Multilingual Education?

The UNESCO resolution of 1999 (cited in UNESCO, 2003) which was instrumental in providing an impetus to the MLE movement, defined MLE as "*Bilingual and multilingual education refer to the use of two or more languages as mediums of instruction*" (p. 17). Scholars like Mohanty, Panda, Phillipson & Skutnabb-Kangas (2009) however, have gone beyond the processes to include in the definition of MLE, "*High levels of multilingualism and, preferable, multiliteracy, as a goal at the end of formal schooling*" (pp. 3). This difference in definition is crucial since it also determines whether the use of two or more languages in education is aimed towards a progressive shift towards proficiency in one 'dominant majority language' or towards maintenance and promotion of multilingual competence. The outcome is a variety of MLE programmes including early exit models with transition as their aim and late exit or maintenance programmes where the aim is to strengthen multilingualism.

Researches over several decades have provided support to positive cognitive effects of bi/multilingualism and also the efficacy of MLE programmes in improving the learning achievement of students. A series of studies over a period of two decades (Mohanty 1982a, 1982b, 1990a, 1990b; Mohanty and Babu 1983; Mohanty and Das 1987; cited in Mohanty 1994, 2003), examined the cognitive and academic consequences of contact bilingualism among the Kond tribal people of Kandhamala district of Orissa, India and showed that Kui-Oriya bilingual children to have a clear cognitive advantage

over their Oriya monolingual counterparts in areas where Kui had been lost as a result of language shift.Similar findings were also seen in the researches by Peal and Lambert (1962), Gardner and Lambert (1972), and Cummins and Swain (1986) among others.

Regarding efficacy of MLE programmes, an eight year longitudinal study in US by Ramirez, Yuen, and Ramey (1991) showed that though the mathematics, language and English skills did not differ markedly amongst the students till grade III, by the time students reached grade VI, the students studying in late-exit transitional programmes were performing better in all the three academic domains. In India, Panda, Mohanty, Nag & Biswabandan (2011) reported the findings of a longitudinal study undertaken by National Multilingual Resource Consortium (NMRC) to study the effects of MLE in Andhra Pradesh and Odisha. The findings showed the students studying in MLE schools to be performing better in the curricular domains of language, environmental studies (EVS) and mathematics. Further, the study also showed that the levels of participation among students were seen to be higher in MLE schools. Wright and Taylor (1995), Thomas and Collier (2002) and many others also provided evidence that MLE programmes have beneficial effects on academic achievement of students.

However, while playing a crucial role in providing evidence for support of MLE programmes, they offered little insights on what constituted MLE practices and how were they different from non MLE practices.

The inclusion of children's home language in classrooms also created possibilities whereby socio-cultural context of marginalized communities that had till then been rendered invisible in classrooms could be meaningfully integrated in classroom discourses.

1.2 Pedagogic significance of socio-cultural inclusion in classrooms

The earlier information processing approach to cognitive development, adopting a computational view of the human mind tended to view both knowledge as well as the path to towards it in neatly outlined algorithmic ways, where maturation was considered to precede learning. However, this approach while trying to draw an analogy between human cognitive processes and the processes characterizing 'artificial intelligence' failed to take into account the socio-cultural and historical context in which the learners, the learned and the contents of learning were located. Commenting on such generalized conception of mind, Bruner (1996) argued, "How the mind works" is itself dependent on the tools at its disposal. "How the hand works" for example, cannot be fully appreciated unless one also takes into account whether it is equipped with a screwdriver, a pair of scissors, or a laser-beam gun (pp. 2).

Founded on this mutually constitutive nature of mind and culture, Vygotsky's work provides a theoretical understanding of the role cultural tools play in 'learning'. Vygotsky places the social dimension of consciousness as primary and individual dimension only as secondary and derivative. The individual mental faculties that a formal education system aspires to develop therefore cannot be assumed to be founded on a base that is context free. Explaining the processes involved in the social formation of mind, Vygotsky invokes the concepts of 'mediation' and 'zone of proximal

development (ZPD)' which over the years have had significant implications for the researchers and educational practitioners interested in pedagogy. In this framework, the higher psychological functioning is seen as the combination of tool and sign in psychological activity, and these mediational means are postulated to be culturally, historically, and institutionally situated. Further, according to this approach, language is seen as initially arising in social situation where it is the means of interpersonal communication between the child and the environment and later assuming the form of internal speech which serves to organize the child's thought and internal mental function. Panda & Mohanty (2009a) further add that in a cultural psychology paradigm where human action is viewed from the perspective of meaning making and as an intentional act in an intentional world, the role of language assumes further significance.

Thus, given the ability of language to be oriented externally during communication and internally during metacognitive functioning, how does one visualize a classroom where the language of instruction is one in which neither the children feel competent to converse, nor has it been developed to a level required for them to organize their thoughts! The recognition of the need for learning processes to be inclusive of children's context and of language as the its most potent tool, creates a possibility where the traditional uni-directionality of most classroom discourses and the asymmetrical power distribution between the students and the teachers can be challenged.

1.3 MLE Models in Odisha

The MLE programme in India is officially implemented in two states of the country- Andhra Pradesh and Odisha. The MLE programme in Odisha was started as pilot programme in 2006-2007 in 185 schools in ten languages in eight districts (Mishra, 2007). In 2012, it was being implemented in 544 schools in ten tribal languages (Odisha Primary Education Programme Authority-OPEPA, n.d.). The structure of the programme in the form of curriculum, transition plan, division of academic calendar, and the nature of materials provided is similar across the districts, with media of instruction in grade I being the mother tongue (MT or L1) with gradual transition to Odia, the official language of the state of Odisha (L2), in grades III-V. Complete transition to Odia happens in grade VI. The programme was influenced by the model prescribed by Summer Institutes of Linguistics (SIL), which itself has been observed to be influenced by the SLA perspective discussed in the earlier section. In the remaining state schools, i.e. the non MLE schools, the language of instruction is Odia, right from grade I, irrespective of whether or not the children of a given region use it as a home language.

A theoretically distinct model of MLE, based on a non SLA perspective is the MLE Plus model in Odisha. In 2008, Mohanty and Panda started a special intervention project called the 'MLE Plus' programme which was sponsored by the Bernard van Leer Foundation. Over a period of two years, eight schools in the two districts were brought under the special intervention of this project. The intervention was based on the

Cultural Historical Activity Theory (CHAT) (Engeström, 1987) and was largely characterized by an increased involvement of the community and greater emphasis on preparation and use of resource materials based on local culture and knowledge systems. The schools besides having MLE teachers, also had trained Community MLE workers (CMWs) who served to connect the school with the community. The programme finally came to an end in September 2012.

2. Objective

The current research aimed to study two approaches to multilingual education, one guided by a transition based early exit model of MLE and the other informed by cultural historical activity theory perspective put forth by Engestrom & Cole (2007) and examine if they are able to bring about a transformation in pedagogic practices in MLE classrooms. The parameters of transformation for the purpose of the study include- (i) a change from a uni-directional transmitive style of teaching to creation of more collaborative learning space in the classroom, (ii) meaningful integration of a child's sociocultural resources in classroom discourse and (iii) shift in power structures in classroom from asymmetrical distribution of power to a more symmetrical one.

3. Method

Since the primary objective of the study was to examine the transformative potentials of different MLE models in Odisha that were located in an interacting context, the third generation Cultural Historical Activity Theory (CHAT) proposed by Engeström (1987, 1995, 2009) was adopted as the guiding analytic framework for the study. The way an MLE model emerges from a theory and gets translated into a classroom practice may be an outcome of interactions that happen at various levels of exchange. It therefore may be helpful to view an MLE classroom as an activity system that is in constant interaction with other activity systems. The various tensions and conflicts experienced may lead to contradictions and in the process the transformation of the system itself. The third generation activity theory based on the fundamental principle of looking at an activity system in its network of relations to other activity systems enabled the exploration needed for the aforementioned objective.

The sample for the study constituted of a state MLE school (referred to as school P) and a MLE Plus school (referred to as school T) in one of the blocks of Gajapati district, where Soara was the language spoken dominantly by the tribal population. A non MLE school (referred to as school K) from the same block which also had a predominant tribal student percentage was also included in order to understand the pedagogic practices in non MLE classrooms, so that the commonly used pedagogic practices could be differentiated from practices solely used in MLE classrooms. The data sources included guiding documents informing the two models, focussed and in-depth classroom observations, semi-structured interviews with the MLE teachers teaching in the two schools and the field notes of the researcher. The data was collected

over a period of two years in three separate field visits, each lasting between 30-45 days. The assistance of translators was sought in transcribing and translating the video and audio transcripts from Saora/Odia to English.

Since the research required an exploration of actual practices happening in the world with language, discourse and live-dynamic interactions being central to the focus of the research, qualitative methods of data analysis that enabled capturing of dynamic interactions and complexities that exist between theories and practices were employed. The 'Discursive Psychology' approach to discourse analysis was used in order to explore the inherent tensions and conflicts within and between the systems. The relevant excerpts from the data, the emerging themes and their discussion have been presented in the following section.

4. Data and Analysis

4.1 Physical and theoretical locations of the two MLE schools

Conceptually, the state MLE programme was based on the premise that "*strong foundation in the mother language provides a good bridge to learning a second language more effectively*" (Malone, 2003, as quoted by Odisha Primary Education Programme Authority-OPEPA, 2010, pp. 4). The MLE Plus programme, on the other hand, was found to be based on the understanding that children's conceptual development was based on the interaction between the spontaneous everyday concepts and the organized system of scientific concepts, where "*children's own knowledge systems, beliefs and values were to be used as the basis for the development of more formal scientific knowledge*" (Panda & Mohanty, 2009b, pp. 302). These underlying understanding were reflected in the stated objectives of the programme, with one of the main objectives of the state MLE programme being "*to introduce state and national language at early stages to mainstream the tribal children in state-wide education system*" (OPEPA, n.d., pp. 6), while that of the MLE Plus programme being to "*facilitate critical dialectic exchanges and movements from culture to classroom making the linkages from language to mathematics and to science, easy, smooth and culturally meaningful for the children*" (Panda & Mohanty, 2009b, pp. 296).

However, despite their being founded on different theoretical frameworks, both the MLE and even the MLE Plus schools, were not immune to the influence of each other or that of non MLE schools. In case of school P, since it was an upper primary school with students from grades I to VII, the teaching in grades I to V was to be in accordance with the state MLE model and the teaching in grades VI and VII (where the mainstreaming was supposed to have been achieved) was to be as per the non MLE model. Therefore, given the early-exit MLE model of the state, in school P were situated both MLE as well as non MLE classrooms. Additionally, since the MLE Plus intervention had been made in the existing state MLE schools, the school T was similarly constrained by the same early-exit transition model of MLE that required progressive decrease in the use of Saora with increase in grades.

Thus, the MLE Plus schools could be seen as being located within the state run MLE schools and the MLE schools themselves were observed to be located in the

broader context of non MLE schools given that the formal structure of the MLE schools was aimed at mainstreaming of the tribal children in a non MLE framework. This overlap in the location of the different school systems of education forms the first site of interaction between them and contributes towards making the boundaries of each system permeable to the other.

4.2 A brief overview of school structures and classroom arrangements

The outer appearance of the non MLE, MLE and the MLE schools selected for the purpose of the study were found to be similar. The walls of the all the three schools were painted in peach colour with a red border on the edges on which patterns from Saora art were drawn. The name of the schools along with the date of establishment was written on top of the front facing room of all the three schools in Odia script. The figures painted on the outer walls of the schools were common to the three schools and comprised of a map of Odisha, a figure of a wall clock, a portrait of Mahatma Gandhi (freedom fighter and remembered as father of the nation), a measuring scale to measure the height of students, a table to record the various expenditures of the school and a table comprising of a list of student ministers in the school. Commonalities were also observed with respect to academic calendar, student teacher ratio (all the three schools had two teachers for the primary and upper primary grades), teachers' uniform, other infrastructural facilities in the school such as number of classrooms, hand pumps for drinking water and provision of midday meals.

Moving inside the classrooms, in all the three schools, given the paucity of the teachers, students from multiple grades were seated in a single classroom, the norm being that grades I, II and III be seated in the same room and higher grades seated in another room. The walls and the classroom arrangement of the non MLE and MLE classrooms shared greater similarity than was found in MLE and MLE Plus classrooms. Both the non MLE and MLE schools had classroom walls that had printed charts with none of them carrying any content in Saora language and wall paintings. Most of the printed charts were in Odia and occasionally even in Hindi and English, none of which the primary grade children knew how to read or write. There were a few paintings on the walls of both non MLE and MLE classrooms, none reflecting any local figure or artefact. The racks on either side of the blackboard that were built for the purpose of storing teaching learning materials were found to be empty. In case of the MLE school, the materials were kept in the staff room and in case of the non MLE classrooms, they were locked in a trunk in a store room, with their access to children completely controlled by the teacher.

4.3 Location and experience of teachers

The analysis of the classroom observations revealed that in both the models of MLE, the teachers were still the primary subjects in the activity systems that were developed in the schools. It was in many ways upon them, how the class was structured and organized and how students' initiatives and peer interactions were included or restrained. For instance, as mentioned earlier, in school P a strict seating arrangement

and locking of MLE materials in the trunk was seen. In contrast, in school T, children were actively found to explore MLE materials or form groups to tell each other stories, occasionally independent of even the teachers' involvement. The activities that took place independent of the teacher's participation still required that the teachers allow them a space in class and be encouraging to the students.

The teachers from both the schools, including CMW, in several of their responses, cited reasons other than their being duty bound to implement the MLE or MLE Plus programmes, to explain their keenness to use children's language to the extent possible. For instance, school P teacher cited 'fear' among Saora children that he had seen while teaching in non MLE schools and their difficulty in comprehending Odia as one of the reasons why Saora should be used in the classroom. He expressed, *"Children in non MLE schools face difficulty because they do not know Odia. They are scared. In MLE school we use Saora which is their mother tongue so they understand... When saying a lesson, I use mother tongue and then while writing, I write in Odia and explain its meaning"*. He added that if he were ever to teach again in a non MLE school, he would not hesitate to use Saora for translating. The aforementioned excerpt shows that the teacher's location in a school is not static as observed in the cases of the school themselves. The teacher's use of Saora with children, while guided by the fact of his being in an MLE school, are also influenced by his observation that when children's mother tongue is not used, they are unable to comprehend the lessons in class. Furthermore, if the same teacher was to shift location from MLE to a non MLE school, as shared by him, some of the practices he may have learnt might be carried there as well. However, just as the excerpt above brings out the teacher's ability to compare the past and the present experiences to arrive at a sense of what constituted a good pedagogy for the children, the awareness of the fact that he will also have to later teach the same children in the same school, using Odia as a medium instruction, also appeared to influence the extent to which the teacher decides to use the children's mother tongue, given that Saora was restricted to translation purpose.

In case of school T, one of the non-tribal teacher who had recently started using Saora in the class cited her own desire of wanting to be as "close to children" as the CMW was, as a reason for learning Saora and using it. She shared, *"I have been in this school for the last 10 years. I have seen how close the students feel to the MLE teachers. With CMW, they would even tell their problems. They would even insist that he play with them. Now even I have learned Saora. When I get stuck, children only help me. Now they talk to me freely"*. The aforementioned excerpt above brings out the subjective agency of the teacher, who notices, experiences, attempts to understand her experiences and finds ways of acting on her understanding. The teacher had experienced initial difficulty in communicating with children, but having no awareness that a pedagogy was possible where children's home language became a resource instead of a barrier, she was unable to find ways to overcome this difficulty. However, after coming into contact with MLE Plus CMWs, the teacher realized the benefits of using children's language and experiences and did then hesitate to learn and use the same even after the school has ceased to be an MLE Plus school. The excerpts of teachers from both schools P and school T, show how another

site of interaction between different school systems is created by movement of a teacher from one system to another as in case of headmaster of school P who had been transferred from a non MLE to an MLE school and also in case of the non-tribal teacher in school T, who remaining in the same school, had seen the school change from one system to another and thus played a role in contributing to what elements of the previous system remained and what were discontinued.

Additionally, such movements, by creating further permeability between different school systems also result in creating multi-voicedness within a given system.

4.4 Resulting classroom practices

The observation of classroom practices in the MLE and MLE Plus schools revealed a few areas of overlap and several areas of disjunction. While use of children's home language 'Saora' and a general absence of 'school anxiety or fear' were found to be two common themes, the two schools were found to differ significantly in the structural and relational arrangement of the classrooms. The seating arrangement in school P was well defined, with students seated in neat rows on the ground and the teacher in the front. In school T however, the students, the CMWs and the teachers were often found sitting together in groups interacting and often building on each other's articulations to progress further. While the teacher was found to control the children's access to materials in school P, in school T all the academic learning materials were kept in open shelves in the class with children free to access them during and outside the class hours.

A key difference was also observed in the nature of Saora usage in the classrooms. Two brief excerpts from language classes in schools P and T have been presented to illustrate the difference. The languages used during transaction have been indicated in the brackets.

Excerpt 1(school P) (Nag, 2014, pp. 144-145).

1. Head Master (HM): Boys and girls what are you seeing (Holding a picture of chair in hand) (In Saora)
2. Student (s)1: *kurchi*(In Saora)
3. HM: What is this? (Holding a picture of tiger) (In Saora)
4. HM: (after no response from students) tiger (in English), *bagha* (In Odia*), kinna*(In Saora*). In Saora it is kinna.* Tell me in Saora?(In Saora)
5. All Students (S): *Kinna*(In Saora)
6. HM: What is this? (Holding a picture of a door). (In Saora)
7. HM: (following no response from students) *Sanang*(In Saora). This is called *Kabat*(O) in Odia. (In Saora)…
17. HM: Now we know these words in Odia, such as (In Saora)-
    a. chair- *chauki*(Odia)- *kuruchi*(Saora)
    b. tiger- *bagha*(Odia)-*kinna*(Saora)
    c. door- *kabat*(Odia)- *sanang*(Saora)
    d. knife- *kundi*(Odia)- *paniki*(Saora)

Excerpt 2 (school T) (Nag, 2014, pp. 148)

The CMW had formed another circle at the back of the class with grade II students. He had a Saora story book in hand titled – 'The story of Maghano (the name of the protagonist in the story)'. The CMW began by reading the story from the book and the students repeated after him. In between a few sentences he would ask students questions. All interactions took place in Saora. (Field notes, 30 March 2012).

4. CMW: With what was Maghano trying to hit the movie?
5. S: slingshot
6. CMW: But what did he accidently hit?
7. S: Bee hive.
8. CMW: Now the monkey was destroying the plants in the jungle. Imagine if you have a garden in which you plant chilies and vegetables and a man comes and leaves his goats to graze in your garden. What will you do?
9. s6: scold him
10. CMW: and what will you do to the goats?
11. s4: shoo them
12. s5: hit them
13. S: shoo them

The excerpts above show that while in school P, the use of Saora was largely confined to the restricted use of serving translation purpose, in school T, the children's language was generously and elaborative used for holding discussions, sharing stories and inviting children to participate in academic discourses. The latter allows the classroom spaces to become more collaborative as students gradually move from merely responding to the directions and questions of the teacher to take initiatives. This was evidenced in several occasions where students worked in groups and built on each other's initiatives and responses to work on problems, as can also be seen in the following excerpt where grade II students had to serially arrange numbers 1 to 50 on the classroom floor:

Excerpt 3 (School T) (Nag, 2014; 196-197)

31. s4: where is 23?
32. s1: here, take
33. s4: This is 32
34. s1: No
35. s4: (shows the number to a grade III student sitting in the same room) tell.
36. Grade III student: this is 32.
… (some confusion can be seen once the single digit numbers have been arranged)
46. s7: Give me a pen. We will first write down.
47. Grade III student: who kept number 40 there? Put it here below 39.
48. s3: what comes after this?
49. s: 42, after this 43.
(there is some confusion and disagreement and they decide to consult the teacher)
…
72. HM: this 42 and 43, is it right, look.

73. s7: (reverses their position) sir?

74. HM: Yes.

In the above excerpt, while the students used the Odia number system to refer to the numbers, the remaining parts of the interactions were in Saora. It can be seen that when the language of minority language students is included in the class not just for acquiring a new language but also as a tool with which they can engage in conceptual conversations, the classrooms appear more collaborative. The use of language seen here is not just to interact with one another but also to think and strategize as reflected in one of the students expressing that writing down the numbers using a pen will help in the subsequent arrangement. The teacher having introduced the concept of numeracy, was now in the role of a mediator. In contrast, in school P, where the use of children's language was restricted, a math class on numbers assumed the following pattern:

Excerpt 4 (School P) (Nag, 2014; p.152)

(The teacher) took out some sticks from the rack on the side of the blackboard to do a counting activity with grade II students. He picked up twenty one sticks. Holding all the sticks in his left hand, he started removing the sticks one by one from his left hand using his right hand. As he took out one stick at a time from his left hand he said aloud '*ek*(one)', '*dui* (two)', '*teen* (three)'…. and counted till twenty one. He then called a grade II boy forward and handed him the entire set of sticks, asking him to count. He gave the same set of twenty one sticks to some more students after which he started removing some sticks from the bundle, in front of the students and asking them to count. While the counting was in Odia, some of the times he gave the instructions in Saora and sometimes in Odia. On one occasion when a girl was unable to count correctly, he asked her to recount and when she again failed, he asked her to go back and called another student.

In the above excerpt, as in case of excerpt 3, both Odia and Saora were found to be used, with Odia used to refer to the numbers and Saora for the purpose of interactions. However, the nature of interactional use of Saora differed markedly in the two schools. While in school T, Saora was being used as a language of conceptual negotiation by the students, in school P, its use was still instructional and restricted. The potentialities of a language to create an interpersonal dialogue, organise cognition within and thereby use it create a zone of proximal development remained unexplored. Such restricted use had limited ability to make classroom collaborative and to change power structure from asymmetrical to a more equally distributed one.

In case of use of socio-culturally sensitive academic aids or tools, the use of picture cards or reference to local artifact in school P was found to be restricted to 'reference' or 'demonstration' alone. A meaningful integration to the academic concept was found to be missing. In contrast, in school T, the teachers were found to regularly encourage students to share their everyday experience and then try to build on the same while building concepts. A back and forth movement between everyday context and academic concepts was observed where the reference to everyday was not confined occasional pointing.

Overall, the arrangement of classrooms and the nature of teacher students' interactions clearly revealed a more asymmetrical power distribution among teacher and students of school P, and a more symmetrical power distribution in school T. Paradigmatically, the MLE practices were not found to differ much from the ones observed in non MLE schools where students were forced to learn in the second language, with exception of the extent of use of children's language. The practices in MLE Plus School, however, showed increased scope for creating among children metalinguistic awareness, reflexivity and the ability to use their home language for engaging in academic discourses. In the MLE Plus school, a clear shift from teacher centric to a student centric pedagogy could also be seen.

5. Discussion and Conclusion

Beginning with overlapping location of the schools, with the MLE Plus intervention taking place within the state MLE paradigm and the MLE schools existing within the assimilative paradigm of 'mainstreaming' of the non MLE schools, the individuals in any of these systems could no longer be seen as participants of an independent system. Rather in Engeström's (1999) words, the goal directed participants of a given system while relatively independent on some occasions, became "*subordinate*" units of a larger unit of analysis which included their network of interacting systems.

The excerpts presented the previous section show how activity systems do not get formed overnight by the stroke of a pen in the policy documents. The understanding and the objectives of the older systems appeared to get carried forward both in policy and practice. The transformations can be enabled only if the contradictions created by the new system are not easily 'accommodated' in the old structures. In order to examine and understand the interactions and see whether they have transformative effects or do they result in continuation of same goals and outcomes, it is important to understand the tensions they are able to generate.

Beginning with the first interaction that was witnessed in form of MLE located within the non MLE, the literature on genesis of the MLE programme developed by organisations such as UNESCO and SIL, on which the Odisha state MLE model is based shows 'transfer' and 'transition' to be two of the major concepts around which most MT based MLE programmes have been developed (UNESCO, 2008). While mentioning the need to address the cultural and linguistic requirements of the local contexts, the other important recognized need was the requirement of "*national and global participation*". This was to be achieved through an additive programme of MLE whereby through initiating a foundation in the mother tongue (L1), a transfer will be sought to the main regional, national or international language by a process of transition involving a change in medium of instruction from the former to the latter (UNESCO, 2003). The reference to the 'cultural' context was in terms of the need to strengthen multiculturalism and cultural identities, while also opening the spaces for a global identity. Thus, in its initial conception, the multilingual paradigm appeared to suggest a more sensitive, smoothened and additive model of assimilation, since the concept of

'transition to' instead of 'along with', remains a central concept vis-à-vis use of languages. The preference of 'transition to' instead of 'along with' reflects the acknowledgement of some languages being either more important than others, or are considered more conducive to academic learning than others. Therefore, the assumption in non MLE school system regarding the academic suitability of certain 'officially recognized' languages over languages that are still bereft of such a status appears to get carried along to even the state MLE models. Panda (2012) has pointed out how the "*socially constructed hierarchy in languages*" and "*the duality in education system*" remains unquestioned in the Odisha MLE model (pp.243). Thus, such a 'transition' model of MLE that while emphasizing on early inclusion of minority culture and languages, without questioning the aim of 'mainstreaming' does not appear to challenge the old non MLE paradigm that required the minority language students to be taught in a language that was not their mother tongue. The school P MLE teacher, in his narrative, still referred to the use of Saora as guided by the aim of facilitating acquisition of Odia.

Thus, in case of the state MLE programme even though the children's home language began to be used in the early years of education, there appeared to be no accompanying change in the underlying idea of education. The conceptualization of the classroom continued to be one where 'knowledge' was to be transmitted instead of seeing it as a collaborative space designed to enable dialogue, reflexivity and development of metacognitive faculties through the use of child's language. Therefore, the MLE model appeared to be an accommodation made in the non MLE model, rather being its paradigmatic replacement.

This accommodation instead of generating more conflicts and contradictions within the system which could then become the initiator of the transformation in the objectives and the outcomes of the system, forecloses the possibility of what Engeström refers to 'expansive transformation in the activity system'. According to Engeström (2009),

> "*Activity systems move through relatively long cycles of qualitative transformations. As the contradictions of an activity system are aggravated, some individual participants begin to question and deviate from its established norms. In some cases, this escalates into collaborative envisioning and collective change effort*"

(Engeström, 2009; 57)

Thus, as one often observes in various other social structures involving gender, caste or race, the structures sometimes instead of radical transformation owing to newer practices that strike at the very assumptions or the foundational basis of the structures, exhibit limited accommodation of some of the less conflicting newer ideas, thus trying to avert a overhauling of the existing structures.

Moving to school T, the inclusion of culture and language as required in a MLE Plus classroom was qualitatively different both in terms of extent as well as nature as compared to the MLE classrooms. Replacing the concepts of 'transfer' and 'transition'

that were seen as central to the UNESCO-SIL inspired MLE models, in the MLE Plus framework guided by CHAT, the concepts central to the programme were of 'historical and cultural situatedness of practices', 'mediation', 'dialectical exchange' and 'linking students' everyday knowledge as epistemic system with academic discourses' (Panda & Mohanty, 2009b). These concepts required that the children's language be looked at as a mediating tool and thus expanding its use beyond the purposes of translation and explanation. A model of education viewing language only as a passive vehicle for transmission of an identified and certified body of knowledge, without aiming for any 'intentionally guided' development in cognitive and metacognitive faculties of the children, could not be conducive to educational practices that were discursive. Given that use of language as a mediating tool rests on the recognition of language as 'social action' (Bakhtin, 1981; 1986) and on the realization of this 'social situatedness' of language, the pedagogy required in MLE Plus classrooms was inherently unsuited for a 'transition based early exit' model of MLE.

As seen in the case of the MLE Plus classrooms during the teaching –learning process involving the participation of the CMW, when the use of Saora changed from being used for translation to being used to encourage initiation of dialogue and reflection, accompanying changes were seen in the in rules and norms of the classroom and in power distribution as well. The classes began to look structurally different not only because of materials in the racks or more charts on the walls, but also in the way the distance between children sitting in rows and the teaching standing in front got reduced when they all sat in a circle. The primary grade children's responses witnessed a change from 'naming objects' to sharing experiences, thinking about hypothetical situations, imagining analogies and telling stories. Once such change in classroom was effected, it was seen that it became difficult for other teachers to revert it back even when the MLE Plus programme came to an end. Once the students had become active explorers of materials and equal participants in classroom discourse, the other teachers too found it difficult to impose the old discipline, given the contradiction between the two. An equal distribution of power in one class, followed by revocation of the same in the next, might have led children to assume that what happened in MLE Plus classroom was only 'artificial' and not real, thus making the whole experience unauthentic. Also, since the classrooms were arranged in a multi-grade manner, it implied that both the MLE Plus trained CMW and the non-trained teachers would function in the same space. Thus, two contradictory systems of rules, division of labour and power distribution emerging in the same classroom were likely to create a tension with disruptive potential. The tensions initiated through MLE Plus intervention could be inferred from the responses of the teacher T_L, of school T, who could observe that something different was happening that was being able to change the way the teachers and students related with each other and also the way the students' experienced the classroom. Since these tensions created in the structuring of the classroom, could not be easily accommodated in the old 'transmission paradigm', they led to a transformation in the structural arrangement of the classrooms.

Thus, while a paradigmatic continuity involving fewer tensions was observed between the non MLE and the MLE school systems, a possibility for a transformative expansion was seen in the interaction between MLE and MLE Plus systems. However, given that both MLE and MLE classrooms were constrained by the 'early exit transition' model of MLE, the transformative potentials of the MLE Plus pedagogy remained only partially explored.

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