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## Mother tongue and the other tongue in the early childhood curriculum: Insights from a mother tongue based multilingual education program (MTB-MLE) for 5-6 year old children

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### Abstract

The paper highlights the learnings of a research study focused on the development, implementation and assessment of a Mother Tongue Based Multilingual Education (MTB-MLE) program and its pilot testing with 24 children of kindergarten class (5-6 years) from the Laboratory Nursery School-Chetan Balwadi (CB), Department of Human Development and Family Studies, Faculty of Family and Community Sciences, The Maharaja Sayajirao University of Baroda, Vadodara. Established in 1949, the Lab School follows the progressive philosophy of John Dewey and has Gujarati (L1) as the medium of instruction. The researcher developed the MTB-MLE module using “Emergent Literacy” as a theoretical framework, with English as (L2). The module was activity based and emphasized on three focus areas of emergent literacy: listening, speaking and reading (recognition of letters). The module was implemented as part of the regular curricular program for 15 days, with each session lasting for 20 minutes per day. Data was collected through daily observations, recordings and assessment checklist. Quantitative and qualitative data analysis revealed that the MTB-MLE program was very effective. It was further observed that the higher the competencies in (L1), the easier it was for children to transfer the learning to (L2). Results further reveal that children should be given linguistic as well as affective support to learn and use both their L1 and their L2 fully. Early childhood educators/practitioners should receive pre-service, in-service training not only for L2 instruction but also in maintaining proficiency in L1 or the language of instruction in the early childhood classroom.

**Keywords:** Mother tongue based-multilingual education, emergent literacy, early childhood education curriculum

### Introduction

The research was conceptualized as an effort to address the lack of clarity in the ways in which ‘language’ and ‘learning’ are connected. It endeavoured to help teachers and practitioners re-envisage ‘learning’ in the context of multilingual experiences; so that it focuses on the critical thinking and wider social skills needed in a rapidly changing world. The research thus dealt not only with the theoretical viewpoints on Mother tongue based - Multilingual education (MTB-MLE) but aimed to test and better understand the practical and implementable measures of MTB-MLE for early childhood curriculum in the local context and its influence on children’s oral language skills.

The MTB-MLE program was developed with a reiteration on providing early instruction “in a language children will understand (local language/mother tongue) and then adding developmentally appropriate second language for wider communication” where first language (L1) is used as a foundation for learning.

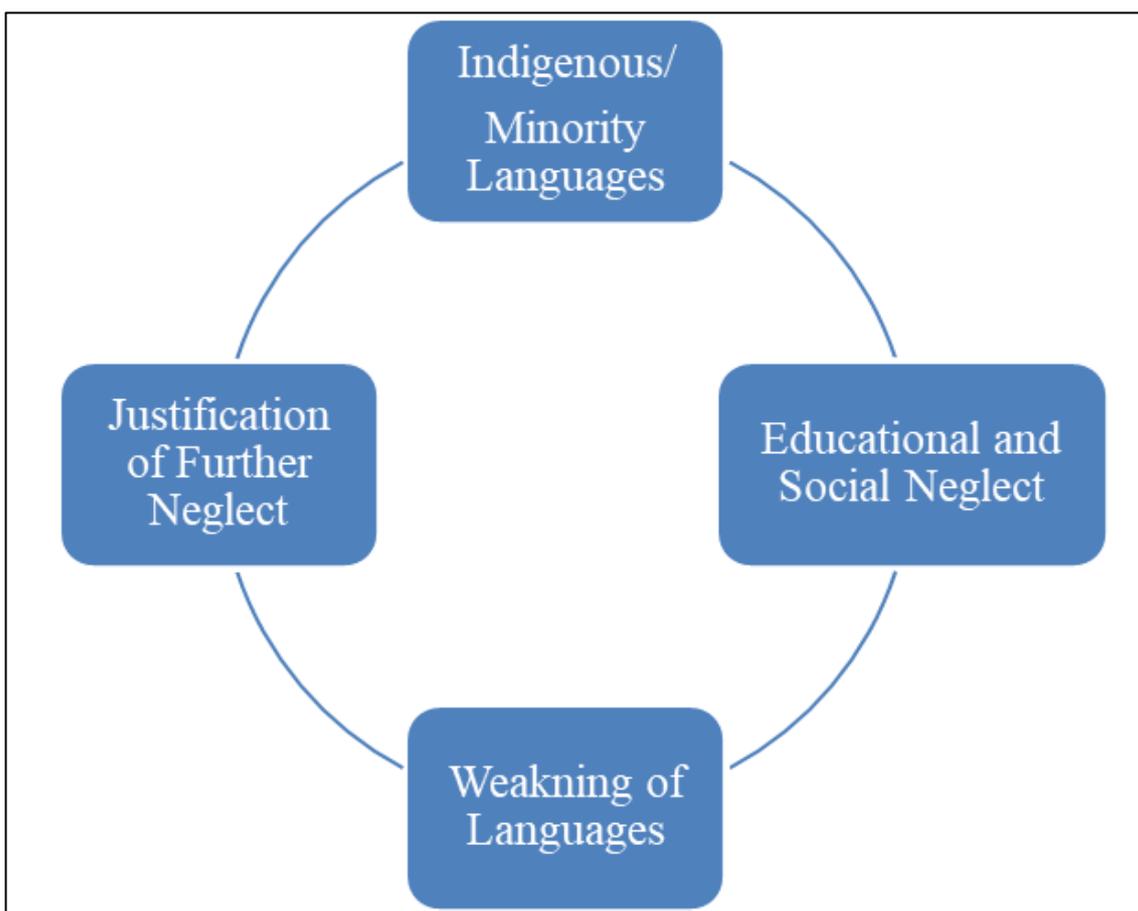
### Language

Language is an ability to acquire and use complex systems of communication. Learning language means learning the particular codes and culture associated with the language (Beckett, Gonzalez & Schwartz, 2004). Many studies have shown that children can learn three or more languages starting in their early years. Though at home, children are learning languages that are different and are dominant in larger society. Moreover, with sufficient motivation, exposure, periods of formal study, and opportunities for practice, they can

ultimately succeed in attaining proficiency in several other languages. However, despite myths about young children being able to ‘soak up languages like a sponge,’ language proficiency does not spring forth in full bloom during the early years. Experience and research have shown that language acquisition takes a long time (Collier, 1989; Cummins, 1991) [5].

In the mind, languages have only one common proficiency with different mechanism for each language. Mechanism and function of central processing system of all languages is one. Language development occurs at two levels: first, language for immediate communication – contextual, simple and less demanding emphasizing basic interpersonal communication skills like face to face interactions, physical gestures, facial expression and more. Second, emphasizes on cognitive academic language proficiency (CALP) -

Language for higher level mental activity, for thinking, regulation, and planning, cognitive and academic activities. Children begin their education from the time they are born in the language they understand – the mother tongue. Mother tongue based instruction develops a strong foundation for a child in centering the critical thinking and wider social skills needed in a rapidly changing world. Ball (2010) [1] reiterates that decades of research in developmental psychology and linguistics have focused on how children learn their first language; almost no research highlights the conditions that support young children to learn more than one language in the early years. Although many children grow up in multilingual households and communities, few guidelines or models for early childhood programmes support children’s bi/multilingual development.



**Fig 1:** The vicious circle of language disadvantage (Mohanty, 2009)

The major issue is that children are excluded of mother tongue from the schools resulting in loss of identity, weakening of languages, children loose the capability to learn and loss of linguistic diversity and more therefore quality education in mother tongue is necessary. The quality education helps children learn better in the mother tongue as it is the powerful resource. It helps child in regulating thought and to form proper linkages with family, community, nature and culture.

**Outcome indicators:** Evaluations of language-in-education

models have assessed different dimensions of outcomes. Common outcome indicators have included: various tests of vocabulary and language proficiency; tests of literacy in the first and second language; primary and secondary matriculation rates; pass/fail and marks in secondary school following bi/multilingual primary school; various tests of cognitive development; and self-esteem/self confidence. Qualitative methods are also common, including teacher and observer ratings and observations, as well as more impressionistic measures. (Ball, 2011) [2]

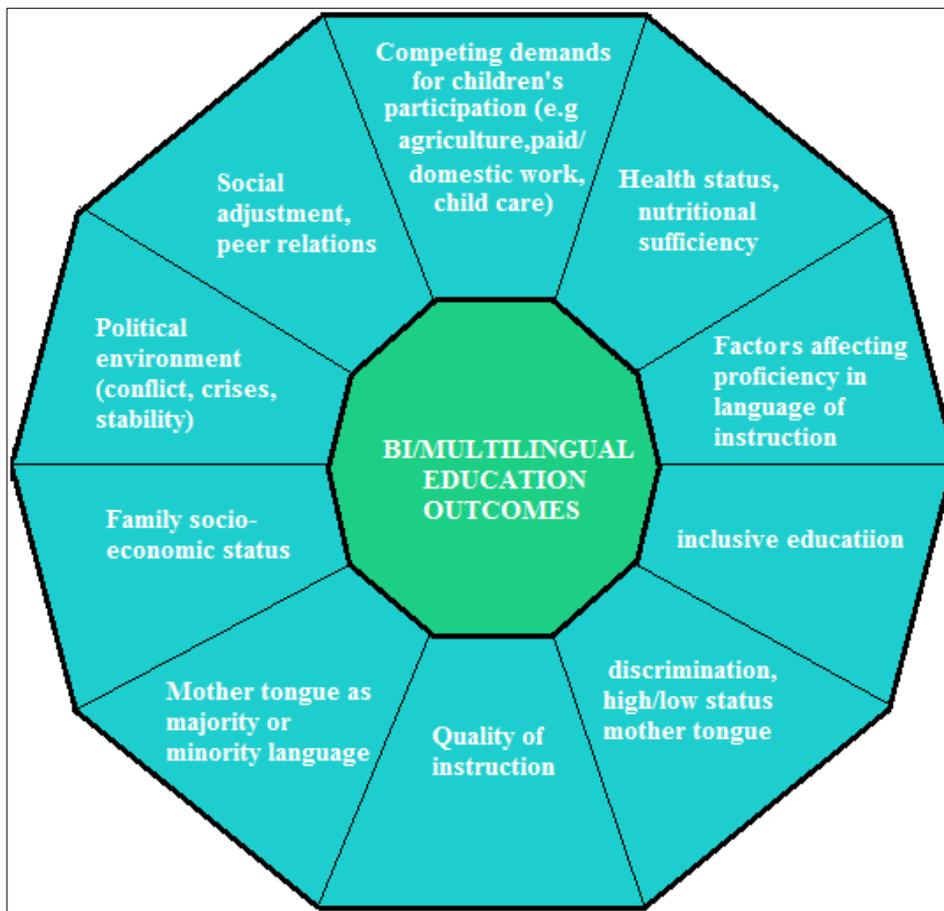


Fig 2: Contributors to bi/multilingual education outcomes (Jessica Ball, 2010) <sup>[1]</sup>

### Multilingualism

Language – a gift to humans is referred as an organized medium of human communication. Language differentiates human beings from animals. Being a monolingual can be compared with animals, restricted to one language only (Okal, 2014). India is blessed with a resource of multilingualism. In India, children start speaking in multiple languages from early years. Multilingual education opens the door to the wider and easier communication. It also helps to enhance intellectual flexibility, creativity, critical thinking, providing insight into the understanding of different cultures and experiences resulting in becoming multicultural in nature.

Some features of Indian multilingualism are maintenance norms, multilingualism at grass-root level, complementarities of languages, multiplicity of linguistic identities, hierarchical relationship between languages, early socialization for multilingual, bilingualism as a maintenance strategy, multilingualism as a positive force and fluidity of linguistic boundaries. (Mohanty, 2009, p.04) There are three stages to development of multilingual socialization and are as follows: (1) Period of language differentiation (2-4 years) (2) Period of social awareness of languages (4-6 years) (3) Period of multilingual functioning (6-9 years). (Mohanty, 2009, p.08)

As noted by Cummins (2000) <sup>[6]</sup>, spending *some instructional time* in a language other than L1 does not deter children's academic achievement, but the additional language should be introduced *as a subject of study* in the curriculum, rather than as the medium of instruction for other curriculum subjects. Research suggests that children benefit from at least some periods of *formal instruction* in a

language, during which their attention is directed to formal features of the language itself (e.g., phonological awareness, vocabulary, syntax), as opposed to simply being immersed in the language. Lightbown (2008) <sup>[13]</sup> and others refer to this as the 'intensity' of exposure, as distinct from the 'amount' of exposure.

### Mother tongue based multilingual education

Research on mother tongue-based bilingual/multilingual education in early childhood and the transition to primary education is scarce. Mother tongue based multilingual education (MTB-MLE) is called developmental bilingual education by some investigators and educators (Genesee, Paradis, & Crago, 2004). This term, conveys the practice of relying primarily on learners' language - mother tongue as a medium of instruction with some introduction of L2 in part of the curriculum. Starting education in the language the child know, allows the child to build a strong foundation, which in future enables the child to make an effective transition into other national or international languages. Mother Tongue Based Multilingual Education is education, formal or non formal, in which the children's mother tongue and national language(s) are used in the classroom. Majority language refers to the language which is accepted by the larger society. Minority language refers to the language which is not one of the socially dominant groups in the country. Mother tongue instruction should be used as both – 'the teaching of' and 'the teaching through' this language. (Ball, 2011) <sup>[2]</sup>

MTB-MLE in current situation: "The choice of the language...is a recurrent change in the development of quality education...Speakers of mother tongues, which are

not the same as national...language, are often at a considerable disadvantage in the educational system..." (Malone, 2007, p1.). Children if provided with safe, nurturing, culturally and linguistically responsive environment, the tendency to learn, explore and communicate the thoughts and experiences increases. Child learns best when learning occurs by oneself through the classroom environment by engaging in daily interactions and experiences with the peers. Through the MTB-MLE and self-learning experiences, child's foundation gets stronger resulting into easy and effective shift too national or international languages. L1 and L2 acquisition by young children (up to about age 7) appear to differ significantly from language acquisition by older children (Bongartz & Schneider, 2003; Cook, 2000, Hatch, 1978; Liu, 1991 in Ball, 2011) [2].

The distinctive nature of *young* children's L2 acquisition calls for a distinctive approach to supporting L2 acquisition in the early years. Nicholas and Lightbown (2008) [13] maintain that in particular, there is a dire need for research on effective mother tongue based multilingual programmes offered to children in pre-primary as most reports to date describe early outcomes of innovations in primary schools and outcomes at primary-school-leaving.

MLE in India has a huge gap between theory, practice and evaluation of the program and there is lack of clarity in policy, material support and government commitment. It needs to be developed as a process of education that starts with development of mother tongue proficiency for all children in all other languages. In India, the exclusion of mother tongues from formal education is closely linked to the preparation of powerlessness and low vitality ascribed to minor, minority and tribal languages compared to the dominant majority languages such as English. In fact, English has established itself as the most preferred medium of instruction and has a significant presence in school curricula all over the country (Mohanty, 2008) [8]. The number of languages used as medium of instruction has also declined. National Council of Educational Research and Training (2006) addresses the issue of ensuring quality for all, and emphasizes the need for norms and standards, the report outlines the five major dimensions of quality such as appropriate curriculum; trained, motivated, and suitably rewarded teachers; appropriate teacher-child ratio and group size; a supervisory mechanism; and child-friendly infrastructure.

Mother tongue based bi/multilingual education initiatives for young children, especially those in the early years before formal schooling, are still in their infancy. Theoretical understandings about bi/multilingual acquisition, along with different goals for children's language development, have provided the rationales to develop and test a range of language-in-education models (UNESCO 2011) [5]. MTB-MLE will benefit in cognitive skill enhancement resulting in decrease in school dropout rates in tribal and rural areas, increases confidence as learners, humanistic understanding, academic achievement, economic benefits, linguistic ability, social skills and political cooperation between groups. All the benefits together in larger society help to contribute to national unity. Usage of different languages allows individual to grow and function at all levels. Wibsey (2013) [16] defines MTB-MLE not as restricting access to national or international languages but about preparing the child properly to learn these languages well.

The transition to a language of instruction before six to eight years of age other than child's first language is not advisable. Reports on MTB programmes highlights better academic performance and high self-esteem in children who perused education in mother tongue in their early years of life i.e. six to eight years. Ball (2010) [11] Mother tongue-based bi/multilingual education is rare in most parts of the world. However, research and experience to date have indicated the promise of this approach to advancing shared goals of preserving and optimizing cultural and linguistic diversity and promoting the success of all children in learning and in life. (UNESCO 2007 a) [4]

There is a need for projects in communities that are keen or inquisitive, including systematically documenting and evaluating Mother Tongue Based Multilingual Education Programs using methodologically sound research (UNESCO 2007 a) [4]. As Beller (2008) [3], Nicholas and Lightbown (2008) [13] and others have emphasized, more research is needed to identify the most effective approaches to supporting second language acquisition and delivering bilingual curriculum in early childhood programmes.

### **Early Childhood Care and Education (ECCE) Policy National early childhood care and education policy, 2013**

The national early childhood care and education policy emphasizes that "the mother tongue / home language/ local vernacular of the child will be the primary language of interaction in the ECCE programmes. However, given the young child's ability at this age to learn many languages, exposure to other languages in the region and English, as required, in oral form will be encouraged in a meaningful manner. A multilingual strategy will be adopted respecting the children's language and at the same time using the plasticity of the early years to expose the child to many languages. The government shall ensure provision of safe, child friendly and developmentally appropriate play and learning materials and appropriate play spaces by appropriate instruments and instructions. The government will promote use of traditional songs, stories, lullabies, folk tales, local toys and games as played.

The sector of ECCE will be professionalized at all levels with qualifications, development pathways, clear goal definitions and capacity building specified for various ECCE personnel. Capacities for ECCE workers will be strengthened to handle multi-age and multilingual context. A comprehensive training and skill based development strategy and plan for different levels of ECCE professionals will be pursued by respective service providers for professionalization in the sector." (Ministry of Women and Child Development, 2013) [7].

Parents and community as a whole can provide support and resources for early childhood education programmes to provide mother tongue based instruction. Books and learning materials in dual language (mother tongue and second language) benefits best and are required to promote MTB-MLE which in result will raise the status of the languages spoken by children and their families. (Ball, 2011) [2]

### **Method**

The research study was carried out in a phased manner. Figure three describes the phase wise procedure of data collection at a glance:

<i>Phase 1 Developing module</i>	<i>Phase 2 Implementation</i>	<i>Phase 3 Assessment</i>
<p>Readings on MTB-MLE Understanding the curriculum of all three classes of CB</p> <p>Interactions and observations with K.G class children on their existing knowledge of English and their interest areas</p> <p>Developing the program in line with the ongoing class themes</p> <p>Gathering and building resources for use in the program</p> <p>Developing checklist based on L2 activities Content validation of both</p>	<p>Program prepared for both semesters of KG curriculum with focus on listening, speaking and reading activities</p> <p>Program implemented by the researcher daily across a span of 15 days, 20 minutes per day</p>	<p>Observations throughout the implementation</p> <p>Insights from audio recording of daily sessions</p> <p>Implementation of plans for the last week by fieldwork students of Third Year and P.G. Diploma in ECCE</p> <p>Daily feedback by the class teacher/supervisor on sessions as well as resources</p> <p>Assessing individual children on the checklist</p>

**Fig 3:** Procedure of data collection.

Phase one of the study included reading and understanding the MTB-MLE concept, referring to different curriculum models, referring textbooks of GHSEB to know how second language has been introduced to students at school level. L2 (second language) module of CB had to match the existing CB curriculum and therefore CB curriculum of all three classes – younger, older and kindergarten group was taken as reference point for development of the module.

To enhance the researcher's perspective on MTB-MLE a short pilot study was conducted with parents (n=15) whose children were from 1-7 years of age. Main aim of the pilot study was to know the beliefs of parents on their preferences of medium of instruction in preschool for their children. Purposive sampling technique was used to select participants and utilized a semi-structured open ended interview schedule. The study helped the researcher gain better insights into MTB-MLE from the parents' perspective.

The L2 module was activity based and was prepared in a way that it integrated with the ongoing themes of CB. Three days observation were carried out in all three classes to observe the ongoing themes and related activities, children's response to the activities and children's participation in the class. Researcher interacted with children to know their viewpoint in learning second language. These observations further helped in module development.

Although 15 days of program was planned for all three classes; all three age groups (younger group (3-4 year olds), older group (4-5 year olds) and kindergarten (5-6 year olds) - it was decided that as it was a first research of its kind the

program would be implemented only with the kindergarten class to have a focused output.

**Data Analysis**

As the sessions were tape recorded, these were translated into English. Quantitative and qualitative data analysis was carried out to compute the results.

**Results**

**Phase 1:** The first phase of research included readings on MTB-MLE, understanding and developing the curriculum with second language for all three classes of CB. Pilot study was conducted with parents (n=15) to know the beliefs on their preference on medium of instruction in preschool for their children. Interactive and observational session was conducted with all the three classes of CB to know their interest in learning second language. A detailed interactive session was done with kindergarten class to know their existing knowledge of English and their interest areas. Considering the above factors, the program was developed for the kindergarten class in line with the ongoing themes. Along with the program development, resources were gathered and built to use in the program. Checklist of L2 was developed in line with the CB development assessment checklist.

Pilot Study results of parents (n=15) on general beliefs related to medium of instruction are:

- Mother tongue as preferred medium of instruction
- Mother tongue + English as preferred medium of instruction
- Only English as medium of instruction

- Non-availability of good Gujarati medium schools
- Status symbol
- Not proficient in teaching of mother tongue

When researcher asked children about what they wish to learn in English, children (8) responded that '*mane english ma train banavta sikhvu chhe-i want to learn how to build a train in English*', '*mane english ma chokro dorta shikhvu chhe-I want to learn to draw a boy in English*', '*mane english ma pravrutti karta shikvi chhe-I want to learn how to do activities in English*'. Further probes by the researcher, teacher and supervisor could not reveal the reason behind such responses; however, it might be possible that children tend to associate their daily activities with the language of instruction.

Analysis of interactive and observational session with kindergarten children and teachers:

- The lab school teachers were not much aware about MTB-MLE concept and through explanation and discussion with the researcher and the guide, the concepts got clearer
- Children were familiar with some English words, numbers and alphabets
- Approximately six to eight children go to tuitions in kindergarten class and know reading and writing numbers and alphabets in English

The following are descriptions and representations of the tools developed and used by the researcher: Letter cards and object picture cards were prepared for understanding and building relation between object and letter.

- Alphabet letters were prepared out of sand to know and understand the shape of the letter by touch
- Picture charts of fruits, vegetables and body parts were used to teach
- For KG class, charts/pictures cards were secondary support as children were observed to understand terms through body mapping and could easily connect with the reality
- Worksheets on colouring A-F alphabets, tracing of A-F alphabets, circling and colouring a specific alphabet
- Blocks from KG class were used for 1-10 meaningful counting

**Phase 2:** The second phase of research was to implement the developed plans in readiness session of kindergarten class. The aim of the program sessions was to focus on listening, speaking and reading in terms of recognition of English numbers, alphabets and some commonly used names of objects. Audio recorded sessions gave detailed insights of the concepts where children required more inputs. Continuous observation and recorded sessions of the program benefited children as more personal attention was paid to each of the child. Worksheets and campus visit was an additional part of the program that enhanced the learning and helped children to retain the knowledge.

**Phase 3:** The third phase of research involved assessing the effectiveness of the MTB-MLE program. The data gathered throughout all phases of research were assessed both qualitatively and quantitatively. The quantitative data gives the understanding of children's knowledge gained in percentage and depicts the effectiveness and appropriateness of the program, teaching method and tools. The qualitative

data was analyzed from the daily recorded sessions, observations and interactions with the children.

Knowing the language and understanding the language are two different aspects. Prior to the program children knew the language but after the 15 days program children gained better insights into understanding of language acquisition and maintenance. Children after the program, was able to identify and recognize English letters and alphabets from the written content. It was observed that during a walk around the campus, children identified 51 locations consisting of alphabets (A-F) and numbers in English (posters, hoardings, number plates of vehicles, some unique ones were electricity poles, stones, footwear, tyres, coffee cups). Children also observed difference between the types and designs of fonts (*madam badhe aksharo ni design ketli judi judi chhe-madam all letters are designed so differently*) and their sizes and colours (*referring to Lineage of Deans Board in the Faculty-madam aa badha siddha siddha aksharo golden colour ma lakhela chhe-madam all these letters are written in golden colour*)

Code mixing and code switching was observed during some interactions with children '*Parth, Sit Down Ahiya*', '*Madam jo maari paase total one, two, three, four, five pandada chhe*' Research shows that code-mixing - initially across short utterances and subsequently within longer utterances - is widespread among young children and generally should not be a cause for alarm or intervention (Genesee, Paradis & Crago, 2004, Bhargava, 2003). Children should be given linguistic as well as affective support to learn and use both their L1 and their L2 fully.

Children had already developed competencies as they almost completed letter and number learning in the L1. It was observed that competencies already developed helped children to understand and grasp second language. Already developed competencies in meaningful counting in L1 helped children to transfer fairly easily to rote and meaningful counting in L2 (1-10).

The ratio of kindergarten class girls and boys was not equal (8:16). Still girls were observed to grasp concepts slightly faster. Overall there is lack of resources available for second language and the study also provided insights about practical strategies which may facilitate and support bilingual and multilingual language acquisition in young children.

### Conclusion and Recommendations

Changes in globalization and urbanization have lead changes in education system by bringing English as a medium of instruction in Indian education system. Today parents desire to enrol their children in schools where medium of instruction is English although they pursued their education in the mother tongue as medium of instruction. Awareness needs to be created about MTB-MLE program and its long term benefits among parents and in early childhood education systems. More research on MTB-MLE in early years is required as there is dearth of research in Indian context.

- More research is needed to identify the most effective approaches to supporting second language acquisition and delivering multilingual curriculum in early childhood programmes.
- Developing resources for second language is required as there is inadequacy of resources for second language.

(classroom environment, worksheets, puzzles, charts, books and more)

- Early childhood educators/practitioners should receive pre-service, in-service training not only for L2 instruction but also in maintaining proficiency in L1 or the language of instruction in the early childhood classroom. Teachers need to recognize and build on the children's knowledge of their first language by strengthening their command over the language.
- A mother tongue based bi/multilingual education in the early years should include L1 as well as at least one other language that has socioeconomic advantage.
- Several studies show that the mother tongue is fragile and easily lost in the early years of school. If support for mother tongue development is phased out too soon, children do not continue to acquire competency in that language.
- It is recommended that practitioners continue use of L1 into adolescence in the interest of children's long-term proficiency.

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