

**Linguistically Responsive Educational Framework for Multilingual Contexts:
Mother Tongue in the Academic Achievements of a Child and Various
Strategies for its Inclusion**

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Abstract

Educational policy-makers are confronted with the challenge to ensure language educational standards for the whole population of a country, while as to protect the rights of those who belong to specific linguistic and ethnic minorities to ensure inclusive education for all. Mother tongue is the principal means used by human beings to communicate with one another, the most powerful form of symbolization and a divine gift bringing them a sense of solidarity in their culture. Moreover, it is well-established now that mother-tongue is crucial for their early success and better learning outcomes, resulting in higher retention, increased achievement and enrolment. In fact, in schools where MTB-MLE is promoted, children are able to convert and activate their funds of knowledge, identity, social capital by enabling them to learn in an environment where they can understand, expand and contribute their ideas, and situate themselves independently, linguistically and culturally within the wider educational and communication context. So, for mother tongue-based multilingual educational programs, regular training and seminars for teachers at teacher training institutions are essential to implement methodologies and pedagogies to orient and guide them on how to handle learners with different languages - to acknowledge the importance of linguistic diversity. Moreover, the educational basics - textbooks, learning materials – should be available in mother-tongue languages as well because the unavailability of appropriate literature and instructional materials is often identified

as a constraint in the development of a localised curriculum. So, strong political and financial will, therefore, is necessary to support various mother-tongue based multilingual education (MTB-MLE) to effectively deliver a multi-language policy in our schools. Moreover, allocation and access to local budgets towards supporting and facilitating investment in mother-tongue teaching and learning is crucial. We also have to build a supportive community environment so that communities and families understand the necessity of mother-tongue learning and cultural values.

Keywords: Mother-Tongue, Inclusion, Multilingualism, Academic Achievement

Introduction

‘When pre-established pockets of marginalization, poverty, or poor teaching quality intersect with schooling in an unknown language, children may never make it to school, or if they do, will find little meaning in the classroom to keep them there’ (Pinnock, 2009)

In today’s world, providing quality education for all children implies taking into account many varied cultural and linguistic contexts that exist in our societies. In fact, educational policy-makers are confronted with the challenge to ensure language educational standards for the whole population of a country, while at the same time protecting the rights of those who belong to specific linguistic and ethnic populations because ensuring inclusive education, guaranteeing all children’s right to education, involves providing education to minority groups in their own language or mother tongue. Hornby (2010) defined mother tongue as the language you first learn to speak when you are a child i.e., a primary language; or the language one identifies with or is identified as a native speaker of by others, or the language a child first learns in the immediate community (Hawkins, 1995). It is the principal means used by human beings to communicate with one another, the most powerful form of symbolization and a divine gift, bringing them a sense of solidarity in their culture (Appelbaum & Chambliss, 1995). Moreover, Bonny Norton (2013) posits that mother language “serves to construct our sense of selves - our subjectivity, and mediates our knowledge and understanding of the world; it is through it that we are able to “negotiate and renegotiate our sense of self in relation to the larger social world, and reorganise that relationship across time and space”. As Vulli, 2014, said the right to education in a language that the children understand is not only a basic human right but also a necessary ingredient of

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equality education, foundational to human relationships, providing strong emotional and social identity, democratic participation, self-efficacy whose destruction results in the destruction of innovativeness and creativity - both constitutive and reflective of their identities (Lee & Norton, 2009; Vygotsky, 1978). According to Benson, 2005, Ball, 2010, the use of the first language improved pupils' affective domain, such as feelings, values, praising, self-concept, self-confidence, self-esteem, identity, feelings, needs and interests of their classmates; their motivation and initiative as well as creativity inside the classroom as they act naturally and communicate efficiently, thus enjoyed learning. So, language is a fundamental and powerful “socio-intellectual, and emotional attribute, and “the most important semiotic tool for representing, transmitting, and creating socio-cultural world views, and empowerment - both the local and global society (Mercado, 2005, p. 134; Akello et al., 2015; Cummins, 2000; Mohanty & Skutnabb-Kangas, 2013; Norton, 2013; Pinnock, 2009). Therefore, stress on education in mother tongue is not for educational achievements and growth only, but for maintaining individual's culture, national development and reconstruction as well. Various studies reported that imparting education in one's first language is important for linguistic and cognitive development as well as socio-economic and academic achievement, since there is a continuum of interrelated connections between language and cognition - from social language proficiency to academic proficiency and then to academic achievement (Cummins, 2000; Ball, 2010; 2014 Education for All Global Monitoring). United Nations Educational, Scientific and Cultural Organization (UNESCO) since 1953 is supporting right of children to learn through their mother tongue for the maintenance of cultural and linguistic diversity through language-in-education policies, in which international ‘Mother Language Day’ proclaimed in 1999 by UNESCO, marked on 21 February every year is one example to promote that. It has encouraged mother tongue instruction in primary education, and highlighted its advantages right from the start: children are more likely to enroll and succeed in school (Kosonen, 2005); parents are more likely to communicate with teachers and participate in their children's learning; girls and rural children with less exposure to a dominant language stay in school longer and repeat grades less often (Hovens, 2002; UNESCO Bangkok, 2005); and children in multilingual education tend to develop better thinking skills compared to their monolingual peers (Bialystok, 2001; Cummins, 2000; King & Mackey, 2007). However, millions of children in the world, predominantly in developing countries, such as India, are forced to learn in a formal colonial or “imperial”

(Mazrui & Mazrui, 1996) or global language, like English, French or Portuguese which is not a language they know or speak at home (Benson, 2004; Global Campaign for Education, 2013; Milligan & Tikly, 2016; UNESCO, 2010, 2016). According to UNESCO, all over the world, there are around 7000 languages spoken in about 200 independent states but only 300 widespread languages are spoken by majority of the people (2003), whereas 43 per cent of the estimated 7000 languages spoken are unsafe and at risk of extinction as the generation that speaks them dies out. If languages continue to disappear, there is a high likelihood that societies around the globe will disinherit their traditional and cultural heritage. When it comes to education, UNESCO estimates that as much as 40 per cent of the population is not educated in the language they speak or understand. Moreover, Bender et al., 2005 disclosed that the world's 50% out-of-school children live in communities where the schooling language is rarely, if ever, used at home. Thus, non-dominant languages are often perceived as having little social capital that extends beyond the localized context and are often not recognized or sufficiently valued by mainstream institutions, including schools (Rios-Aguilar, Kiyama, Gravitt, & Moll, 2011; Tozer, 2000). This underscores the biggest challenge of achieving Education for All (EFA): a legacy of non-productive practices that lead to low levels of learning and high levels of dropout and repetition" (The World Bank, 2005). In case of the disadvantaged groups, linguistic discrimination forms the core of their capability deprivation through educational and social neglect which contribute to their poverty in a vicious circle. In fact, it is estimated that 221 million primary-aged children from remote rural areas, linguistic minority and ethnic communities like children from poverty stricken families, daily wage workers, slum dwellers and children from destitute families, and girl children who speak a different language at home and have no contact with the instructional language outside of the classroom, indicate a danger of loss or near loss of their national or local languages, leaving these children in the impossible position of trying to decipher what they are being taught in an unknown language (Walter, 2010; Phiri, 2013). So, mismatch between home and school languages force the linguistic minority children into subtractive language learning in the form of submersion education in the dominant languages, which can have extremely negative consequences on them due to the linguistic, pedagogical, economic, social and psychological barriers reinforcing, discrimination, inequality and their further exclusion. In submersion schooling, cognitive and language learning are confounded, making it difficult for teachers to determine whether students have difficulty

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understanding the concept itself, the language of instruction, or the language of the test. Therefore, not much is stored in memory since what is learnt by rote is easily forgotten as they are frustrated to see meaning in texts, and eventually teaching becomes mechanical and stifling (Cassels & Johnstone; 2011; Pollnick and Rutherford, 2010). Moreover, the stress and disorientation that children can experience under these kinds of circumstances lead them to feel “frightened when they go to school and do not understand what the teacher is saying to them” which compels them to abandon the school (Pinnock, 2009, p. 5; Mutumba, 2014). So, the shock which the young child undergoes in passing from the home to the school life is so great that everything possible should be done to soften it, particularly, where modern methods of infants’ teaching are not practiced in schools (Ala, 1983). In addition to the academic calamity that results from subjecting young children to an unfamiliar LOI, denying children the opportunity to learn in the language that has mediated their lives until the time they enter school results in poor self-esteem and “identity deprivation” as children come to understand that their MT and all that is associated with it, such as local knowledge, family and cultural traditions, and community structures is extraneous, unappreciated, and without value in formal educational institutions (Mohanty & Skutnabb-Kangas, 2013; Akello et. al., 2015; Cummins, 2000; Ngwaru & Opoku-Amankwa, 2010). There are attitudes of shame and guilt associated with mother tongue, and they regard their own languages as ‘inferior’, ‘deficient’, and consider the dominant languages of instruction in schools like Hindi and English (in India) as languages of empowerment, prestige and social mobility. Like most respondents in Tanzanian research felt that English offers them better opportunities for employment compared to Shona as it was seen as empowering them to compete well in the global village and access to the system of equal opportunities. However, Roy-Campbell (1996) found that such sentiments expressed by students who could hardly communicate in English can only be attributed to their negative attitudes. Whereas, in Zambia, where English was the educational language (among non-English speakers), it was found at the end of primary schooling that children were unable to read fluently or write clearly, and many failed examinations because they could not understand the instructions (Williams, 1996). Moreover, Johnstone and Selepeng (2011) revealed that students struggling to learn science in a second language lose 20% of their capacity to reason and understanding in the process. The practice of excluding of MT from the classroom, and denying children the opportunity to learn in a language that they know is what Skutnabb-Kangas and McCarty (2007) refer to as linguistic

genocide: “the deliberate elimination of a language, without killing its members” (p. 6). Bunyi’s (2005) ethnographic study of Kenyan lessons has shown that classroom interactions in L2-dominant schools are dominated by safe talk, where teacher makes little demand on learners, encourages choral answers, repetition of phrases and copying of notes from chalkboards or textbook with little comprehension of the real meaning, or the ability to apply their learning to other circumstances. A survey in Jharkhand, India revealed that more than 96% of children at primary level failed to follow classes where the medium of instruction is Hindi as only 4% of the rural population among them speaks Hindi while 96% speak either a tribal or regional language (UNICEF and Jharkhand Tribal Welfare Research Institute, 2013). It has also been reported that if children are taught in languages which are different from their home language or mother tongue, they drop out from school, have low academic performance, and repeat classes due to a high failure rate as seen in Nepal (Yadava, 2007; Awasthi, 2004). Moreover, if children are empowered to have a voice in the classroom, by being able and encouraged to share their experiences and contribute their ideas in a language they know, they will be able to imagine and aspire to futures that they would otherwise not be (Akello et. al., 2015; Alidou & BrockeUtne, 2011; Ouane & Glanz, 2005, 2006, 2010, 2011; Thomas & Collier, 1997). But education when imparted in foreign language or any other language of children which is not the language spoken at their home or in their immediate surrounding atmosphere, it naturally hampers their personality as it is a violation of good pedagogy principles and guilt of cultural imposition, which results in drop out of native children from the school, causing failure of them to learn to read and write - which is a big loss to country, nation and even to humanity at large. Large-scale studies carried out in Norway to investigate persistent achievement differences in reading literacy between minority language learners and native Norwegian speakers among 10-year-olds demonstrate that language minority learners in Norway fall behind in reading achievement compared to their native Norwegian-speaking peers. In such situations, children learn that their funds of knowledge (what they know and share with their families and communities) do not belong to school, due to which they struggle to cultivate identities as learners or imagine future identities for themselves, which stigmatise them as weak and inadequate justifying further exclusion (Norton, 2000). In fact, language minority students were found to achieve less than native speaking students in all 10 OECD countries (Agirdag and Vanlaar 2016). Unsurprisingly, the inability of children to understand what is being said in the classroom has been deemed a key

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factor in high rates of academic failure and school drop-out rates (Benson, 2004; Brock-Utne, 2014; Global Campaign for Education, 2013; Ouane & Glanz, 2005). As such, without adequate support for an L1-based language policy, schools end up encouraging an orientation towards error-free regurgitation of curriculum content rather than the expression of ideas and interaction with new information (Stenhouse, 1971). Despite high levels of spending on education, failure rates remain high with only four in ten (39%) learners expected to reach grade (Alidou, 2006), which has been at least partly attributed to this disastrous language policy (Jhingram, 2013). Moreover, it is well-established now that children who receive schooling in their mother tongue in early grades, rooted in child's culture and environment, with appropriate and locally-developed reading materials, is crucial for their early success and better learning outcomes, resulting in significantly lower drop-out rates, higher retention, increased achievement and enrolment i.e., high literacy levels (Smits, 2008; Progress in International Reading Literacy Study, PIRLS, 2011; Nolasco, 2010). So, in many cases, learners are hesitant in participating during the classroom discussions not because they do not know the topic, but they are not quite comfortable with the medium of instruction being used in. A medium of instruction is the language used in imparting knowledge, and inculcating values and norms of the society in formal school system - language of primary socialisation. So, it is axiomatic that the best medium of instruction for children is their mother tongue, since it enables them to construct and explain their world, articulate their thoughts and add new concepts to what they already learnt without fear of making mistakes as they can understand what is being discussed and asked by them; and teachers in turn can diagnose what has been learned, what remains to be taught, and which students need further assistance (Capitol University, 2016; Alberto et. al., 2016; Nolasco, 2010). In Ethiopia, local language policy has resulted in lower drop-out rates and higher retention (Heugh, 2006). Study conducted by Esapada, 2012 entitled 'The Native Language in Teaching Kindergarten Mathematics' revealed that the kindergarten pupils exposed to the native language performed better in mathematics than those who were exposed to English. If children's MT is recognized and valued as a fund of knowledge, it will facilitate further learning and participation in the school community, will gain value as social capital as it will be viewed as an essential aspect of a child's educational and social development leading to increased future opportunities and well-being (Akello et. al., 2015; Benson, 2004; Ngwaru & Opoku-Amankwa, 2010). So, we must build on that foundation by creating a bridge between the formal school system and

children's home and community environment to help them gain a better self-concept and a strong sense of their own identity as every child has the right to have their talents recognised and promoted within their education (Ball, 2010). In Vietnam, 68% of grade 1 students in mother tongue program achieved the level of excellence compared to only 28% of students not learning in their mother tongue (UNICEF, 2011). A study in Mali, where mother-tongue was used for instruction, children were 5 times less likely to repeat the year and more than three times less likely to drop out, whereas in Ethiopia, local language policy has resulted in lower drop-out rates and higher retention (Walter, 2000). For example, a recent evaluation of a mother tongue education program in Cameroon reveals that children who were taught in their mother tongue, Kom, performed significantly better in multiple subjects (including Math and English) than a control group of peers who attended schools where English was the medium of instruction (Chuo & Walter, 2011). Using the first language in school was found to stimulate the cognitive and academic growth of learners by scaffolding, stimulating information-sharing, and facilitating higher-order mental processing (Chalmers 2019). So, Government should see that the medium of instruction in the primary schooling is initially the mother tongue of the immediate community and at a later stage, English or any other global language". Even, most teachers, principals and parents of children have found that students who begin learning in their home language have more confidence in themselves as learners, participate more actively in classroom discussions, ask more questions, and demonstrate a deeper understanding and expression of the subjects with greater comprehension - evident from the UNESCO's report of 1997 on mother tongue education considering it as the best first entry into education. Moreover, researchers argue that effective language use determines the quality of successful education because it avoids confusion and misunderstanding of concepts as student's have a repository of vocabulary, knowledge of the linguistic construction, and the pronunciation, so the suitability of it should be decided on the consideration of its effectiveness as an educational tool rather than on the basis of political, cultural, or economic consideration. Therefore, the necessity mother tongue for instruction is being realized today, most of the physiologists, linguists, educationists, and sociologists are inspired and convinced by the universally accepted principle "the mother tongue of a child is the most appropriate medium for a child to learn effectively".

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Although research has encouraged mother tongue instruction in early childhood and primary education, mono-lingualism in the official or dominant language is still the norm around the world (Arnold et al., 2007, UNESCO, since 1953). Specialists believe that instruction of the content is best done in a language to which the learners are proficient (UNESCO 2011), and that access to two or more languages may accelerate the development of multi-linguistic skills (Vygotsky 1962). Researchers have shown a positive correlation between multilingual proficiency and academic achievement by emphasising that multilingualism leads to greater cognitive flexibility and social tolerance, and would go a long way in mainstreaming the linguistic minority children and preventing indigenous languages from dying out. With these challenges, mother tongue-based multilingual education (MTB-MLE) has been coined as the best means for ensuring quality education for the ethno-linguistic communities who speak non-dominant languages. Where multilingualism refers ability of an individual to uses more than two languages, or a community of speakers where more than two languages are used, or between speakers of two languages, MTB-MLE refers to the use of students' mother tongue and two or more additional languages as languages of instruction in schools. In other words, discourse of mother tongue-based multilingual education (MTB-MLE) promotes using mother tongue as the language of instruction with a gradual transition to other languages (Language 2 or 3) as child progresses in schooling (Mohanty et. al., 2009). For UNESCO, 'multilingual education' refers to the use of at least three languages in education: the mother tongue, a regional or national language and an international language. It doesn't simply mean using the inter-lingual translation or multilingualism, it implies that the whole pedagogy is situated in mother tongue-based multilingual education (MTB-MLE). So, with these challenges in view, mother tongue-based multilingual education (MLT-MLE) has been coined as the best means for ensuring quality education for the ethno-linguistic communities who speak non-dominant languages. Multilingualism is not a rare but a normal necessity across the world due to globalization, and wider community and cultural communication. So, although children's MT is a valuable fund of knowledge with respect to their own identities, knowledge and skills, and relationships with family, friends and community, its value is enhanced in the classroom where other languages prevail as well. So, amidst the trends of globalization, local dialects can survive through the constant use by the native speakers as well (Luistro, 2013). Furthermore, learning other languages open up access to other value systems and ways of interpreting the world, encouraging

inter-cultural understanding and helping reduce xenophobia. Moreover, this kind of situated pedagogy increases the chances for learners to feel ownership of their education and reduce conditions that hinder their acquisition and learning of various knowledge and processes of wider communication. So, to make the teaching-learning scenario learner centered, the language curriculum should acquire a holistic approach to language planning in which a global language like English has a complementary and supplementary role in the whole of language education. So, research suggests that engaging marginalized children in school through mother-tongue based multilingual education (MTB-MLE) is a successful model (Benson & Kosonen, 2013), for it embodies and encourages the exchange of views, the renewal of ideas and the broadening of our capacity to imagine due to which children can thrive academically (cognitively, emotionally, or socially). Research even provides convincing evidence that a second language is learned best when a first language is learned well (The World Bank, 2005). In other words, teachers instructional strategies only become feasible when children understand the language of instruction and can therefore, be interactively engaged. Moreover, studies demonstrate that learning is most effective when the instruction is received in the language the learner knows best and then transition to other national and global languages because this enables them to meet their broader multilingual goals while retaining their local language and culture to be better equipped to become literate in languages of wider communication. Moreover, Setati et al., 2008, asserted that learners' home language as a resource in the classroom offers strategies to improve learners' comprehension of the word problems in mathematics by offering its versions (translations and cue word strategy) using home languages, which makes the subject accessible to all learners because they focus on mathematics and not the language when comprehension is a problem (Kazima, 2010). So, lack of resources for introducing MTB-MLE should not be seen as a major stumbling block, in few cases where these benefits have been calculated, the savings have considerably outweighed the incremental costs of establishing and maintaining schooling in local languages and the rewards in terms of quality and inclusion would anyway justify the investment. Various countries are in fact dealing positively with multilingualism and the preservation of minority languages. Even within the United Kingdom, Wales has developed successful bilingual policies to preserve its native language (Celtic language) and culture while continuing to use English and live alongside English culture, with the aim of children being fully bilingual by the time they enter secondary school. This example shows that a determined

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government and people can keep their language alive while continuing to use English. So, to overcome the perception that certain languages and cultures are inferior to others, Greil (2004) recommends that "materials need to be inclusive of representations of the learner's own culture that specifically relate their culture to other cultures in ways that learners will eventually be able to express these ideas in English and learn to communicate effectively in intercultural situations." Therefore, it is important to raise awareness, and promoting tolerance and understanding of people's linguistic sensitivities while providing learners with the knowledge of the languages they are likely to need in practice. Research also suggests that engaging marginalized children in school through mother-tongue based multilingual education (MTB-MLE) is a successful model (Benson & Kosonen, 2013; Yiakoumetti, 2012). Multilingualism is a source of strength and opportunity for humanity as it embodies our cultural diversity and encourages the exchange of views, the renewal of ideas and the broadening of our capacity to imagine. Using the home language in the early stages of schooling in multilingual contexts support child-centric policies because it starts with what is familiar and builds in new knowledge, creating a smooth transition between home and school as it stimulates interest and ensures greater participation and engagement. Language teaching in multilingual contexts may take a diversity of forms and apply to variety of ideas and cultures equally. This belief that learning through MT is "backwards" and liable to put children at an educational disadvantage (Akello et. al., 2015; Mutumba, 2014; Tembe, 2008; Tembe & Norton, 2008) stems from claims and policies that have insisted that children require maximum exposure to the dominant languages as well in order to become proficient in it (Cummins, 1986). While some of the countries such as Iceland are linguistically homogenous, most countries like Indonesia, Nigeria, India, Mexico and Papua New Guinea show an abundance of linguistic diversity. In fact, it would be difficult to find a country which is completely monolingual because multilingualism is the rule not the exception. It is also notable that most of the developing communities understand the importance of English as a language of globalization, used for governance, trade, media, and education throughout the world, which has immense social capital. Individuals with mastery of English, and its preferred forms (such as lexicon and accent) can "buy into" networks that wield power and opportunities, whereas those who lack this social capital will not have the same power and opportunities (Norton, 2013; Tozer, 2000). English as an official language has, therefore, been associated with success, power, prestige, progress, and achievement and such associations

have generally resulted in English getting a high positive evaluation (Adegbija, 1994). Moreover, most teachers motivated by the fact that English would be the language of instruction in higher classes and of examinations chose to teach in English as opposed to the mother tongue in the belief that the earlier it is introduced as the LOI, the faster pupils are likely to attain competency in it (Muthwii, 2002; Bunyi, 2005). Although learning English or a dominant language enables intercultural communication, the advantages of recognition, inclusion and use of mother tongue in the cultivation of multilingualism cannot be ignored as well. In fact, a wide body of research shows that strong, foundational grounding in first language is critical for children in order to become fully literate in additional languages (Alidou & Brock-Utne, 2011; Cummins, 1981, 1986, 1993, 2000; Heugh, 2006; Moll & Gonzales, 1994; Obondo, 2007; Ouane & Glanz, 2005, 2010, 2011; Tembe & Norton, 2008, 2011). Research stresses the fact that children with a solid foundation in their mother tongue develop stronger literacy abilities, and their knowledge and skills transfer across languages, which will serve as passport to enter and achieve well in the mainstream educational system and in the end, contribute productively to their community and to the larger society as Multilingual, Multiliterate, and Multi-Cultural Citizens of the country (Department of Education, 2013). So, children in schools where MTB-MLE is promoted, children are able to convert and activate their funds of knowledge, identity, social capital by enabling them to learn in an environment where they can understand, expand and contribute their ideas, but also strengthen and build their social networks to fully inhabit and situate themselves independently, linguistically and culturally within the wider educational context. In addition to their intrinsic worth, funds of knowledge can also be converted into tangible outcomes and resources such as improved socio-economic conditions, increased power and status in society, and greater life opportunities and overall well-being. Pinnock & Vijayakumar, 2009, concluded, based on his extensive data, that the best language policy for schools is "Mother-tongue-based multilingual education", leading to improved skills such as seeing problems from different points, dealing with complex issues, and multitasking leading to more original and creative ways of solving problems. Trudell (2005), in a study, reports that minority language in the north of Cameroon offers "pedagogical and cultural relevance to local realities", while still providing access to the official languages, French and English. Research has shown a positive correlation between multilingual language proficiency and academic achievement by emphasising that multilingualism leads to greater cognitive flexibility, can enhance the performance of spatial

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tasks, analytical strategies, and promote skills of communication and creative thinking that fit the broader aims of education and social tolerance to fit in a local culture (Olmed 2003). In the African context, Robinson (1996) is of the opinion that official and local languages are regarded as opposed to each other rather than as complementary by the fact that one of the two languages may be regarded as more suitable language for certain domains and the characteristic functions are seen in dichotomous terms. He says local languages are characterized by oral usage, individual/community usage, emotional attachment, village solidarity, and personal loyalties. On the other hand, the official language like English is characterized by institutional usage, written usage, functional use, economic advantage, and national communication. This unequal access could sour relations between ethnic groups further as dominant groups continue to benefit from the availability of multi-linguistic education and those marginalised are left even further behind. UNESCO's report in 2007 of China's mother tongue-based bilingual education programme teach children briefly in ethnic minority languages, before rushing towards transition to the national language. Similarly, in Pakistan, Rahman (2019) states that there are sporadic interventions with language activists running schools in home languages while formal education continues in English or Urdu. The study of Netherlands has the highest level of multilingualism with over 90% Dutch citizens speaking an additional language and over 75% able to communicate in two languages in addition to their L1. Further, research on L2 acquisition shows that when a child masters the first language, then learning another language becomes less problematic in the habits of speech, listening, reading, and writing (Maclaughlin, 1987; Krashen, 195; Ndamba 2008 citing Cummins, 1981; Hawes, 1979; Obanya, 1985; & Dawes, 1988). So, respect for the languages of persons belonging to different linguistic communities, therefore, is essential to peaceful cohabitation. This would go a long way in mainstreaming the linguistic minority children and preventing indigenous languages from dying out. In Philippines, the problems associated with effective bilingual education among the linguistic minorities can be traced to a lack of reading and instructional materials in the local languages. Yet, even in these circumstances, test scores of children studying in Lubuagan improved in reading and language by up to 40%. Filipino scores were up by 38% and English by 31% (Smits, 2008). In the African context, where the second language becomes more of a necessity than a choice, research suggests that students studying in the mother tongue performed better in all subjects, including the English language (Heugh et al. 2007). In bilingual schools in Guatemala, which cover about 15%

of the population - grade repetition is about half that of traditional schools, while dropout rates are about 25% lower (The World Bank, 2005: "Education Notes: In Their Own Language). In Guatemala, a study found that mother-tongue-based bilingual schooling created savings of US\$5.6 million a year through reducing drop-out and repetition, despite higher initial costs for introducing new materials and teacher training (World Bank, 1995, Costs and Benefits of Bilingual Education in Guatemala). Thus, the use of mother tongue along instruction mirrors the aspiration of learners to promote national and cultural distinctiveness, and those who read and write in mother tongue before learning another language not only are more successful as second language learners but also excel more quickly than their peers who did not become literate in their first language (UNESCO, 2006). Thus, if an education system submerges learners in L2 without first trying to further develop the skill they already have in L1, the school risks impeding their competency in L2 for years to come, while also limiting continued, autonomous development of their L1. Pilot projects relating to the Mother Tongue - Based Multilingual Education (MTB-MLE) disclose that the teachers observe a remarkable level of participation among students because they could readily relate the lessons to their own experiences, prior knowledge and other socio-cultural background. Thus, mother Tongue-Based instruction provides an opportunity for our children to exercise their right to learn in their first language, in which classroom is not an alien place for them anymore. Moreover, researchers believe that borrowing English terms for science concepts are the immediate solution to the problem of translating terms of science concepts from English to the first language (Vela, 2012). Ricardo et al., 2009 deduced that research on Mother Tongue Based Multilingual Education (MTB-MLE) resulted in the active participation of the learners, and eliminated inhibition and fear in many pupils especially the younger ones. So, multilingual children have an enormous contribution to make to their societies, and to the international global community, but our educators should put into practice what we believe is true for all children: children's cultural and linguistic experience in the home is the foundation of their future learning and we must build on that foundation rather than undermine it. Hence, it is evident that although language planning in some form is required in all societies, the need for it is greater in a multilingual society where the problem of communication is complex, and challenges the speaker with a multitude of options. Overall, we have found that although there is a gap in the performances of the students whose mother tongue and the language of instruction is different compared to those whose mother tongue and medium

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of instruction are same, this gap vanishes if we introduce mother-tongue based multi lingual education. Thus, a careful decision regarding the medium of instruction in education with reference to learners' development and learning competence is more crucial when it is being decided.

However, most education systems have an acute shortage of teachers who speak or have access to different languages, for effective usage of local languages and other national and international languages for instruction is that there must be enough teachers to teach in it (Fasold, 1984; Thomas, 2009). In fact, several studies have highlighted the central role of teachers in addressing the vernacular divide within and outside classrooms. As countries and communities increase mother tongue-based multilingual educational programs, regular training and seminars for teachers at teacher training institutions are essential to implement methodologies and strategies; to orient and guide them on how to handle learners with different languages, to acknowledge the importance of linguistic diversity (Malone, 2011; Mackenzie, 2015). Teachers often fail to implement the child-centred teaching strategies in which they are trained and are more likely to focus on acquisition of the L2, which in most cases is done through submersion, as it is the language of high-stakes examinations even though the language policy advocates the use of L1 pedagogy (Capper, 2000). In fact, Menon et. al., 2014 studied that teachers not only have a pivotal role in classrooms but also in responding to language policies that affect their students. Furthermore, Walter & Dekker (2011) stated that, "teachers should be up to date on literacy demands of a curriculum especially on the language demands in order to obtain flexible techniques in teaching". In Namibia, a 2011 government study showed that 98% of the country's teachers are not sufficiently proficient in language.

Moreover, in most low - and middle income countries, the majority of primary schools have no libraries, books are luxuries which families cannot afford, and where textbooks are rarely available in local languages. In many other countries, the educational basics - textbooks, learning materials and the teacher's language of instruction - are primarily or entirely available only in non-mother-tongue languages. A review of the situation in schools across Africa found that teaching practice and the development of literacy are negatively impacted by a severe lack of appropriate educational materials (Alidou, 2006). In Papua New Guinea, where there are over 800 languages of which 450 are used in early years of education, there are hardly any appropriate

materials. The unavailability of appropriate literature and instructional materials is often identified as a constraint in the development of a localised curriculum (Diane Dekker and Catherine Young, 2007). Localised Curriculum reflects the culture and lifestyle of the students, and encourages comprehension development and reflection on the content by including familiar situations and increased contextual clues. However, in developing countries, the task of developing print materials in local languages can be daunting and the costs of editing and publishing can be prohibitive. For instance, a study in Jharkhand, India, found that very few reading and writing materials are available in tribal or regional languages, resulting in poor reading and writing skills (UNICEF & Jharkhand Tribal Welfare Research Institute, 2013). Moreover, in Malawi, insufficient resources were made available for a local language programme which led to an ineffectual roll-out (Kamwendo, 2009). While exact costs depend on context and approaches, it is clear that investment in mother tongue education is more than offset by improved educational performance. In other words, where benefits have been calculated, the savings from reduced school repetition and drop-outs have considerably outweighed the incremental costs of establishing and maintaining schooling in local languages (production of learning materials, teacher training, etc.). Large amounts of teaching time, materials and infrastructure are wasted when children drop out, repeat grades, or fail to achieve learning outcomes. Moreover, in situations where there are very small language communities, print-runs may not reach a break-even point for publishers, and relying on international publishing house would be expensive and inappropriate. So, decentralised publishing may be the best way forward. So, collaboration between linguists, educators and community members is required to establish orthographies, developing materials, grammars and dictionaries to raise the status of home languages. In many places, the development of mother tongue literature has been promoted through writing contests, festivals, book signings, writing and illustration workshops, debates and radio and television programs (Srujan in Orissa). These programmes showed remarkably positive results in enrolment, attendance, reading and achievement levels across the curriculum, and encouraged the community's interest and engagement in children's education (Panda & Mohanty, 2013). Furthermore, in Orissa, a programme called Srujan was initiated by the government to increase access to knowledge, information and materials for the multilingual education programme. Srujan is a community-based approach with an objective to link community knowledge and practices with the school curriculum. The programme has been a real

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success, and children have been better-able to understand the content and connect classroom knowledge with their own experience, and were being able to think creatively. However, the students who pass from these schools go to the English medium colleges, because there is hardly any college in the country that offers a bilingual medium of instruction as the Indian education system blocks multilingualism as one moves into higher education.

So, review of different studies, at national and international levels, suggest that curriculum rooted in the child's known language, culture and environment is crucial for children's educational success. While there are encouraging signs that the policy pendulum is beginning to swing towards a greater understanding of the importance of mother-tongue based multilingual learning, there is still a long way to go. The various strategies for policy makers to ensure educational standards for the whole population of a country are:

- Strong political and financial will, particularly for initial investment costs to introduce language policies to implement and support various methodologies to effectively deliver a multi-language policy; providing technical assistance to partner governments for the same; building capacity in educational administrations for decentralised development; and communal unity and participation to successfully implement these educational policies.
- In countries with diverse linguistic groups, work with teacher unions to develop appropriate recruitment and training approaches (enhancing their skills so that they are very well equipped with the necessary knowledge, and improve their vocabulary with the use of mother tongue) which may include allocating them to places and training them in the language they already speak by acknowledging the importance of linguistic diversity; giving them incentives to be placed in rural communities; should also be trained in learner-centred interactive teaching methods and pedagogies (with emphasis on contextualization and innovativeness) to curriculum design and delivery; and introducing a second language in gradually and carefully managed stages, ideally with specialist trained language teachers. Moreover, institutes of higher learning as producers of globally competitive professional teachers - unions and professional councils - should revisit its multi-lingual curriculum in teacher education to develop student's skills and

abilities in mother tongue (UNICEF and Jharkhand Tribal Welfare Research Institute, 2013).

- Allocate and access specific local budgets towards supporting and facilitating investment in mother-tongue teaching: translating, developing and printing books and materials in low cost by setting-up flexible textbook and reader purchasing; ensure relevant local skills and techniques for the production of literacy materials, language teaching materials, pedagogical grammars, dictionaries, and so on based on local knowledge, practices and environment rather than simply receiving shipments of books in a language set at central level.
- Build a supportive community environment so that communities and families understand the benefits of mother-tongue learning and cultural values, and there must be information available on the status and function of language and culture.

Statement of the problem

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Objectives of the study

Study was aimed to find out the following objectives:

1. To review the impact of mother-tongue on the academic achievement of a child
2. To review the mother-tongue based multi-linguistic instruction for the wider educational context and communication of the child - globalisation
3. To analyse the various strategies to implement the mother-tongue based multilingualism in education

Review of Literature

Alcazaren & Rafanan (2021) studied the different language-in-education policies and mother tongue-based instruction in Asia and Africa, explored the different challenges and pedagogical implications of mother tongue-based instruction to synthesize emerging issues and insights. Research suggested devaluation of a nation's mother tongue due to its people's negative perspective and the poor policy planning that was found out. Furthermore, it was also found that

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most of these developing communities understand the importance of English as a language of globalization.

Beka (2016) assessed the psychological benefits and challenges of mother tongue as a medium of instruction. Results found that majority of students have positive attitude and addressed psychological benefits of mother tongue as a medium of instruction.

Dash & Das (2019) studied the linguistically responsive teaching framework for multilingual education in inclusive classroom. Research found that it is necessary to adopt a pragmatic approach to linguistic usage in inclusive education, and take into account the mechanisms of standardization of language in plural societies. Moreover, multilingual and multicultural education requires a degree of planning, and proficiency in the language of the classroom, and a high level of skill in teaching (Saraf, 2014).

Englis & Boholano (2021) studied the implementation of teaching mother tongue-based instruction in teaching elementary Mathematic. The results revealed that there is a substantial increase in the performance of learners after the intervention of the mother-tongue instruction, and there was an increase in retention skills and performance of the learners.

Everlyne & Wilson (2021) studied the influence of teacher presentation skills of mother tongue usage on literacy skills of pupils in early childhood development and education. The findings indicated that teacher attitudes towards mother tongue accounted for 55.7% of literacy skills, and created opportunities for learners to develop effective literacy skills.

Fakeye (2016) investigated the perception of primary school pupils on the efficacy of MTE in enhancing cognitive achievement in selected primary schools in Ibadan metropolis. Findings of the study revealed that primary school pupils perceived MTE as good and efficacious in enhancing cognitive achievement.

Jones & Mutumba (2019) investigated on the mother tongue-based instruction, its funds of Knowledge, its identity, and social capital in an Ugandan pre-school classroom. Findings indicate that MT-based instruction engaged and supported the cultivation of children's funds of knowledge, identity, social capital related to home and community relationships, resources and practices, classroom learning communities, bilingual development, and agency and empowerment.

Khan, 2014 studied the education in mother tongue: A children's right. Results suggested a lack of education in a first language was a reason for children dropping out, while their access to instruction in their mother tongue resulted in enrolment and attendance. Moreover, classrooms using first languages of children as instruction were more than three times less likely to drop out and five times less likely to repeat the year.

Lartec et al., 2014 studied the strategies and problems encountered by teachers in implementing mother tongue - based instruction in a multilingual classroom. From the analysis of the data, the findings revealed that the teachers used strategies like translation of target language to mother tongue, utilization of multilingual teaching, utilization of lingua-franca, improvisation of instructional materials written in mother tongue, remediation of instruction.

Nishanthi, (2020) studied the importance of mother tongue on the learning of the children, in which it was suggested that the language policies need to take account of mother-tongue learning, and there is a need to express better policies for it. Further it revealed that the models of education which ignore the mother tongue in the early years can be unproductive, ineffective and have a negative effect on children's learning. More governments are developing policies and programmes that take account of mother tongue in the early stages of learning.

Nwali (2014) attempted to look into the impact of mother tongue on the academic achievement of the child. The findings concluded that parents and all those people concerned with child upbringing should not to deny children the right or opportunity to speak their mother tongue.

Pillos et al., 2020 aimed to examine the use of Mother-tongue as the language of instruction on pupils' performance in mathematical problem solving skills, and the study found out that the use of Mother Tongue as a medium of instruction in mathematical problem solving improves learners' knowledge comprehension and strategies in solving problems.

Raaj (2017) studied the mother-tongue based second language instruction in Indian rural multilingual context. Results found that the exclusion of mother tongue in education limits access to resources and perpetuates inequality by depriving language communities of linguistic human rights, democratic participation, identity, self-efficacy, and pride, and linguistic discrimination in India forms the core of their capability deprivation through educational and social neglect.

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Rogers, 2014 discussed the possibilities and effects of different language policies in schools around the world. Study found that the current language teaching situation is not actually succeeding in improving students' use of English or their learning in general, and there is a great risk of producing one or more generations of school leavers and graduates who cannot function beyond everyday conversation in their first language.

Siyang (2018) examined the effectiveness of mother tongue-based instruction in teaching Mathematics. Results found that among disadvantaged groups in India, linguistic discrimination forms the core of their capability deprivation through educational and social neglect which contribute to their poverty in a vicious circle.

Trujillo (2020) studied the pupils' performance using the mother tongue as medium of instruction across the years. The findings showed that there was an improvement in pupils' cognitive, motor skills, and affective ability by the implementation of the mother tongue in consecutive three years, and teachers' general views of challenges were lack of instructional materials in the teaching mother tongue, lack of translated terms, and programmed training.

Tagle & Rodriguez (2017) aimed to show the effectiveness of the Mother tongue - based instruction as medium of instruction of the grade two pupils. Research findings suggested that respondents obtained high scores in the Mother tongue - based instruction, and found hard in comprehending and understanding the concepts in English - based instruction resulted to a very low scores and percentage.

Methodology

Research methodology is the specific procedures or techniques used to identify, select, process, and analyse information about a topic. In this research paper, methodology allows the researcher to critically evaluate a study's overall validity and reliability. Whileas, meta-analysis is used to statistically analyse the particular research problem by combining the results of multiple scientific studies. It is considered the most trustworthy source of evidence by the evidence-based scientific literature.

Interpretation and conclusion

Educational policy-makers are confronted with the challenge to ensure language educational standards for the whole population of a country, while as to protect the rights of those who belong to specific linguistic and ethnic populations to ensure inclusive education for all. Mother tongue is the principal means used by human beings to communicate with one another, the most powerful form of symbolization and a divine gift, bringing them a sense of solidarity in their culture. Denying children the opportunity to learn in the language that has mediated their lives until the time they enter school results in poor self-esteem and “identity deprivation” as children come to understand that their mother tongue and all that is associated with it like local knowledge, family and cultural traditions, and community structures is extraneous, unappreciated, and without value in formal educational institutions. Moreover, it is well-established now that children who receive schooling in their mother tongue in early grades, rooted in child’s culture and environment with appropriate and locally-developed reading materials, is crucial for their early success and better learning outcomes, resulting in significantly lower drop-out rates, higher retention and increased achievement and enrolment i.e., high literacy levels. Furthermore, specialists believe that instruction of the content is best done in a language to which the learners are proficient with, and that access to two or more languages may accelerate the development of multi-linguistic skills (Vygotsky 1962). Moreover, this kind of situated pedagogy of multilingualism increases the chances for learners to feel ownership of their education and reduce conditions that hinder their acquisition and learning of knowledge of wider context. In fact, our curriculum in schools should acquire a holistic approach to language planning in which a global language like English has a complementary and supplementary role in the whole of language education. Because children in schools where MTB-MLE is promoted, children are able to convert and activate their funds of knowledge, identity, social capital by enabling them to learn in an environment where they can understand, expand and contribute their ideas, but also strengthen and build their social networks to fully inhabit and situate themselves independently, linguistically and culturally within the wider educational context. Therefore, it is important to raise awareness, and promote tolerance and understanding of people's linguistic sensitivities while providing learners with the knowledge of the languages they are likely to need in practice. In fact, countries and communities strive for mother tongue-based multilingual educational programs, so regular training and seminars for teachers at teacher training

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institutions are essential to implement methodologies and strategies to orient and guide them on how to handle learners with different languages - to acknowledge the importance of linguistic diversity. Moreover, in most low - and middle income countries, the majority of primary schools have libraries, books and other learning materials rarely available in local languages. In other words, the educational basics - textbooks, learning materials of the teacher's language of instruction – should be available in mother-tongue languages as well because the unavailability of appropriate literature and instructional materials is often identified as a constraint in the development of a localised curriculum. So, strong political and financial will, therefore, is necessary to support various methodologies to effectively deliver a multi-language policy in our schools. Moreover, allocation and access local budgets towards supporting and facilitating investment in mother-tongue teaching like translating, developing and printing books and materials in low cost by setting-up flexible textbook and reader purchasing; ensure relevant local skills and techniques for the production of the same for pedagogical grammars, dictionaries, and so on based on local knowledge, practices and environment rather than simply receiving shipments of books in a language set at central level. Moreover, building a supportive community environment so that communities and families understand the benefits of mother-tongue learning and cultural values is absolute necessity.

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