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Medium of Instruction (MOI) policies in Ghanaian and Indian primary schools:

An overview of key issues and recommendations

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Abstract

While the MDGs and SDGs seek to ensure inclusive and equitable quality education, they rarely address the issue of Medium of Instruction (MOI). Increasing attention is being paid to appropriate and feasible language-in-education policies in LMICs and evidence which demonstrates the benefits and challenges of various policy options. Research in this field, though, tends to be diversified, with a range of small-scale empirical studies scattered among a number of disciplinary contexts. There is therefore a need to consolidate and systematically identify the extent to which this diverse body of literature has evaluated the various language-in-education policy options. To this end, this paper reports on a rigorous literature review of MOI-related research on Ghana and India, whose language-in-education policies represent two contrasting models of use of local languages and the development of competence in English. The paper begins by briefly overviewing the language-in-education policy in these two countries and sets out the methodological approach underpinning this review. It then turns to the initial findings, which are discussed in two parts: The first categorises the three areas of research explored in the empirical studies reviewed, namely the effectiveness of language-in-education policies, problems hindering the implementation of these policies, and attitudes to these policies. The second provides an overview of the recommendations for how, given the obstacles in implementing the current policies, to better ensure the effectiveness of language-in-education policies in Ghana and India. Together these findings show that similar

issues arise that contribute to challenges of providing equitable, quality education, and similar recommendations have been put forward as a result. This paper thus provides a valuable overview of key issues in the role of language-in-education policies in improving equity and quality in education in LMICs. [283 words]

Key words: language-in-education policy, multilingual education, medium of instruction (MOI), English as a medium of instruction (EMI), Ghana, India

1. Introduction

While policies such as the Millennium Development Goals and the Sustainable Development Goal seek to ensure inclusive and equitable quality education, they rarely address the issue of Medium of Instruction (MOI), despite increasing recognition that this plays a significant role in accessing knowledge (Pinnock, 2009; UNESCO, 2016). Various language-in-education options have been proposed in lower and middle-income countries (LMICs) – each of which aim to give local, regional and national languages a prominent role in education, and hence also greater access to learning for the wider population. English nevertheless increasingly features prominently in the curriculum, whether as a subject or a medium of instruction (MOI), with the intention of providing access to a language of wider communication. Transitions to English medium instruction (EMI) are common in primary school systems across Sub-Saharan Africa, but may be postponed until vocational or higher education in South Asian countries. In Ghana, for example, the current national educational policy is that the local language serves as the MOI in primary grades 1-3, with English being taught as a subject, followed by a transition to English as the MOI in grade 4. In India, in contrast, the national educational policy – known as the ‘three language formula’ (NCERT, 2005) - promotes the state language as the MOI, with English and another Indian language being introduced subsequently as curricular subjects.

However, learning outcomes from these countries indicate that neither of these language-in-education policies can be described as overwhelmingly successful, whether with regard to ensuring literacy and access to learning in the local/national languages or to English language learning (see UNESCO, 2014 for Ghana and Pratham, 2012 for India). Thus, increasing attention is being paid to considering appropriate and feasible language-in-education policies

in LMICs, with growing interest in evidence of the benefits and challenges of various policy options. Research in this field, though, tends to be diversified, with a range of small-scale empirical studies scattered among a number of disciplinary contexts (applied linguistics, comparative education, African studies, literacy studies etc.) and published in a range of outlets, with little strategic development of concepts, questions and ideas across the field. There is therefore a need to consolidate and systematically identify the extent to which this diverse body of literature has evaluated the various language-in-education policy options.

To this end, this paper reports on the first phases of a rigorous literature review of MOI-related research on Ghana and India. It begins by briefly overviewing the contemporary contexts of language-in-education policy in Ghana and India. These national contexts were chosen because their language-in-education policies represent two contrasting models of use of local languages on the one hand and the development of competence in English on the other. The paper then sets out the methodological approach underpinning this review of over 75 research articles published between 2000 and 2015. The article then turns to the initial findings of this literature review, which are discussed in two parts: The first set of findings categorises the three main areas of research explored in the empirical studies reviewed, namely the effectiveness of language-in-education policies, problems hindering the implementation of these policies, and attitudes to these policies. The second set of findings provides an overview of the recommendations for how, given the obstacles in implementing the current policies, to better ensure the effectiveness of language-in-education policies in Ghana and India. Together these findings show that, despite the vastly different language-in-education policies in these two contexts, similar issues arise that contribute to challenges of providing equitable, quality education and similar recommendations have been put forward to improve current policies. This paper thus provides a valuable overview of key issues in the

role of language-in-education policies in improving equity and quality in education in LMICs.

2. Context: Language-in-education policy in Ghana and India

Ghana and India provide interesting sites for a comparison of language-in-education policies. Both countries have been re-classified to LMICs by the World Bank in the last ten years, which means that they are on a trajectory of growth and development. Together with these economic advances, and perhaps also related to them, both have witnessed great progress at all levels of education since 2000, particularly in terms of enrolment. However, low student achievement, discussed further below, remains a chronic issue (see Darvas and Balwanz, 2013; UNESCO, 2014 for Ghana and Pratham, 2012 for India). Both countries are extremely diverse ethno-linguistically, with high levels of societal multilingualism, and plurilingualism while English has an official status in each and plays an important role in their education systems. However, different language-in education policies have arisen in the two contexts – each of which attempts to promote students’ ‘mother tongue’, a term broadly understood to refer to the language that individuals are most familiar with and proficient in using. Mother tongue education is promoted in early schooling in part to a recognition of regularly reiterated UNESCO guidelines (1953, 2008), which have been formed with regard to research that recommends its prolonged use in early schooling– ideally for six to eight years – in order to ensure strong foundations in literacy that allow access to learning, including the successful learning of other languages such as English.

2.1 Ghana

English has long been an official language of education in Ghana, where language-in-education policies have fluctuated between English-only and promoting the use of the mother tongue in the first three years of schooling (Ansah, 2014; Owu-Ewie, 2006). Secondary and tertiary education in Ghana has always been in English, with regional Ghanaian majority languages studied as a subject (Rosekrans et al., 2012). Since 2007, English has been the official MOI beyond primary grade four, with 11 of the 79 recognised Ghanaian languages stipulated for use in primary grades 1-3 (namely, Akan (Fante and Twi), Nzema, Ga, Ga-Adangbe, Ewe, Gonja, Kasem, Dagbani and Dagaare) – languages which have a literary tradition (Ansah and Agyeman, 2015). The policy, which is at the time of writing under review, stipulates that the majority of instructional time is spent in the mother tongue (80% in primary grade 1) while time for English gradually increases to 50% by primary grade 3 (MOE Ghana, 2003). It was introduced with the intention to ensure that primary school pupils be functionally literate and numerate, and have reading fluency in the mother tongue and in English upon completion. The policy could be defined as an early exit, transitional bilingual education model, in which children are required to switch to learning through the language of wider communication at an early age. Translanguaging – the strategic use of multiple languages to support learning, which is common to most multilingual education contexts (García, 2009) – is neither recognised nor sanctioned in policy.

2.2 India

With Hindi as its official language, English as an associate language, 22 ‘scheduled languages’ and over a hundred additional languages recognised among its 35 states and union territories, and the use of 25 distinct writing systems, India represents a particularly complex multilingual context for the implementation of language-in-education policies, perhaps more

than ever since the Right to Education Act (2009) has achieved almost comprehensive access to primary schooling. The country has long recognised a divide between government and elite private education, the former generally being local Indian language medium and the latter English medium. Higher education has been almost uniquely English medium, the post-independence, proposal to replace this with Indian languages within universities over a 15 year transitional period having been unsuccessful.

Formalised in 1968, India's 'three language formula' is intended to guide state school language-in-education policies. This recommends the mother tongue (generally presumed to correspond to the state language) as the MOI, with both another modern Indian language (specifically Hindi where this is not the state language, or that of another state if it is) and English to be taught subsequently as curricular subjects (NCERT, 2005; 2006; NCF, 2009). The intention behind the trilingual formula is to ensure that every child enters secondary education with competence in at least three languages. While it makes no mention of English as the MOI, many government schools have yielded to societal pressure to teach the language as a subject at primary grade 3 and, increasingly, grade 1, rather than the recommended grades 5 or 6 (Meganathan, 2011). Some state schools are going further and introducing an English MOI strand at early levels alongside the existing local language strand. The widespread proliferation of low-cost private schools, where English is often the purported MOI represents a significant challenge to the state school system (James and Woodhead, 2014).

3. Methodology of the Literature Review

The literature review of empirical research investigating language-in-education policies in these contexts was conducted as the first stage of an eighteen-month research partnership investigating MOI policies in LMICs, which involves the British Council, Education Development Trust and the Open University, UK. The literature review team – the authors of this paper – consisted of four academics from across the Faculty of Education and Language Studies at the Open University, UK and one research assistant, with complementary expertise in applied linguistics, sociolinguistics, second language acquisition, English language teaching and international education.

As there are relatively few large-scale empirical studies into the effectiveness of MOI policies in LMICs in general and in Ghana and India in particular, the review demanded a rigorous but flexible and inclusive approach. It thus drew on Hagen-Zanker and Mallett's guidelines for conducting rigorous literature reviews within the field of international development to enable reviewers to 'take empirical evidence seriously, to minimise retrieval bias and to ensure relevance and utility of the final product, while also allowing for flexibility in the retrieval process' (2013:1). The team collaboratively conducted a search for literature related to MOI in the contexts of Ghana and India in an extensive collection of over 900,000 full-text journals and over 500 databases, using a variety of key terms associated with the field (e.g. 'language policy', 'language of instruction', 'medium of instruction'). The search was limited to peer-reviewed articles published between 2000 and 2015, thereby covering the most recent developments in language-in-education policy and issues arising due to increased access to school since the formulation of the MDGs.

The initial searches brought up over 600 results, after which exclusion criteria were applied to ensure that the studies were published in a peer-reviewed journal, as this was taken as a

sign that they were sufficiently relevant, valid and reliable. The titles and abstracts from the peer-reviewed articles were then independently screened by two members of the team to verify that they were directly concerned with MOI-related issues. This resulted in 64 articles being selected for review (36 relating to India and 28 to Ghana). Each of these articles was read independently in full by two team members, with pairs being assigned to each of the contexts. To ensure a comparable approach, a template was designed to capture and categorise the content of the articles according to the theoretical and methodological framework they employed, evidence of the reliability of that methodology, the key findings of that study and any recommendations made in terms of language policy and practice. Each reader completed this template independently and then met with the other team member to compare their results and find consensus on any differences.

On completion of this formal search and review process, the research team felt that some key publications investigating issues in MOI had not been uncovered. This was attributed to the diversity of the field and the large number of key terms identified in the studies – including some that were not in our initial search, e.g. ‘codeswitching’ or ‘English language teaching’. Moreover, several relevant studies featured in edited volumes, which were not readily available as digital files, or took the form of grey literature such as project reports and therefore did not fit the original search criteria. The team therefore identified any additional studies cited in the original selection of articles which they thought should be included in the review – what Hagen-Zanker and Mallett (2013) term a ‘snowball’ process. This led us to the inclusion of a further 13 relevant studies, which brought the total number to 77.

A ‘strength of evidence’ matrix was then applied to each of these publications using codes to indicate the robustness of the study and the level of relevance (see Appendix). This process

was undertaken independently by pairs of researchers, who then discussed any differences in ratings and came to a consensus. Only seven of the MOI studies were ranked as being ‘very strong’ in terms of the methodology reported and the size and length of the study reported on (5 related to Ghana and 2 to India). Around half of the studies (33) were ranked as being ‘moderately strong’, which meant that they were ranked as being rooted in empirical work (either primary or secondary), with some reporting on the methodology (the majority of these being small-scale qualitative studies). Another large group of studies (25) were ranked as ‘other’ – as they were conceptual pieces and/or had weak or no reported methodology. This paper does not attempt to include all of the study, but relies primarily on a selection ranked as ‘very strong’ or ‘moderately strong’. The conceptual studies, and related studies undertaken in other contexts, have been drawn on to provide background information and add strength to the arguments put forward in the empirical studies.

4. Findings

The initial findings of the literature review are discussed here in two sections. The first describes the main areas of research explored in the empirical studies reviewed. The second provides an overview of recommendations for how to ensure the effectiveness of language-in-education policies in Ghana and India.

4.1 Three areas of research covered in the review

This section presents a broad overview of the three areas of research covered in the empirical studies reviewed and the findings from this research, specifically studies about the

effectiveness of language policies; problems with the implementation of these policies; and perceptions of these policies.

4.1.1 The effectiveness of language-in-education policies

Research has been conducted in Ghana and other Sub-Saharan African contexts which compares the effectiveness of learning through the mother tongue to that of learning through English (e.g. Alidou et al, 2006; Ankohmah et al, 2012; see also Benson, 2010; Brock-Utne et al, 2010; Heugh et al, 2007). These studies find evidence of higher learning outcomes when mother tongue-based policies are implemented. These findings are relatively unsurprising, as they reinforce research conducted in other contexts which has consistently demonstrated that mother tongue based instruction in early years education results in higher levels of with regards to subject learning, as well as more rapid and successful mastery of other languages, even if acquired considerably later (e.g. Cummins, 2000; Kosonen, 2005; Thomas and Collier, 2002).

However, in Ghana, there is evidence that the mother tongue education provided from early years schooling is often not providing students with the requisite skills to transition into English as the sole MOI from primary grade 4. A World Bank report found that 65 percent of grade 6 students leave primary school without having become proficient in English or mathematics (Darvas and Balwanz, 2014: xi). Corroborating such findings, Ngwaru and Opoku-Amankwa (2010) found that the use of English from primary grade 4 creates anxiety for students, due to their lack of ability in the language, and stalls effective classroom participation. Similarly, Davis et al (2013) found that students are significantly hindered by the use of English in solving mathematical word problems, even when they have

demonstrated that they understand the underlying mathematical concepts (see also Rea-Dickens et al, 2013; UNESCO, 2016).

Studies focusing on teacher practices in Ghana found that these too are more effective when teachers use their mother tongue (Alidou et al, 2006; Ankohmah et al, 2012). Similarly, those teachers whose training makes use of the mother tongue are more likely to have the technical and pedagogical vocabulary needed to teach curricular subjects and the necessary confidence in their own language ability (Heugh et al, 2007). This is due in part to teachers' level of competence in English being low – particularly in communities where the language is not widely used (Ankohmah et al, 2012; see also Mukorera, 2014). Related to this, studies suggest that the use of English as MOI increases the likelihood of a reliance on 'safe talk' (e.g. Williams, 2014), as teachers who are not confident in English rely more on drilling and memorisation, while they use more strategies when teaching in the local language which means that learners are more animated and understand more (Ankohmah et al, 2012). Also contributing to the reliance on drilling and memorisation, and the low learning outcomes found is the finding that the English curriculum and textbooks are aimed far beyond students' existing competences and realistic achievement levels (Ankohmah et al, 2012; see also Milligan, this volume).

In India, where mother tongue education is promoted for use throughout the curriculum, there is a large number of students radically behind in terms of reading and maths, with attainment levels falling rather than rising overall (Pratham, 2012). While the role of MOI in low attainment levels is underexplored in India (Jhingran, 2009), unsatisfactory learning outcomes may be attributed to the fact that, in many cases, the highly multilingual nature of many Indian states means that the school language does not in fact correspond to the mother

tongue of large numbers of students, particularly first generation learners, creating considerable disadvantage from the start of their education. Although several programmes that have been introduced to enhance classroom pedagogy in general – among them Activity Based Learning and Joyful Learning – lack of recognition of linguistic diversity continues to contribute to widespread educational disadvantage (Jhingran 2009).

With regard to the learning of English as a curricular subject in India, this is also extremely problematic: Fewer than half the children in primary grade 5 were found to be able to read simple words in English (Pratham, 2012) and, of the children who could read words, approximately 40 per cent could tell the meanings of the words they had read (Banerji and Bobde, 2013:31). Poor student attainment in English may be attributed to low levels of ability and confidence in the language among primary teachers, which in turn limits their employment of effective language teaching strategies. Rather, over reliance on choral repetition and copying is commonplace, with little focus on student comprehension (Bhattacharya, 2013; Jhingran, 2009). Thus, while Indian language-in-education policies follow what has been promoted in research in terms of employing mother tongue MOI and teaching English as a curricular subject, attainment remains less than desirable, suggesting that, either these policies are not being implemented as planned, and/or that there are other factors impacting on learning.

On a more general level, learning in general and language learning in particular are very much dependent on the nature of teaching provided. Teachers need pedagogical expertise in order to provide support for the development of language and cognitive skills. Some have suggested that more important than choices about MOI is that students are valued, included and given opportunities to participate in the classroom (D'Souza, 2006). But in both Ghana

and India primary school teachers very often have relatively low levels of education and training themselves (ref). Teacher training is largely theoretical and does not tend to focus on supporting the realities of the classroom, such as more multilingual and ethnically diverse groups, as access schooling becomes more universal. The increased demand for and provision of English – whether as a subject or as the MOI – is not usually accompanied by language enhancement or appropriate training. This is especially challenging for primary teachers who are not necessarily language specialists but are expected to teach across a range of subjects (Clegg, 2010). Although subject-based English teaching materials may be increasingly communicative in their approach, teachers are often more comfortable relying on more familiar, traditional methods in exploiting them (Graddol, 2010).

4.1.2 Research exploring policy implementation

Research conducted in both contexts explores some of the factors impacting on the success of language-in-education policies and uncovers several examples of a lack of implementation (Davis and Agbenyega, 2012 for Ghana; see also Trudell, this volume). Reasons identified for this include teachers and students not sharing a language (Ansah, 2014; Ansah and Agyeman, 2015; IEQ, 2000 for Ghana; D’Souza, 2006 for India); school communities being diverse and students not sharing a language, particularly in urban contexts (Mfum-Mensah, 2005 for Ghana; Jhingran, 2009 for India); or there being a mismatch between the state language which serves as the MOI in government primary schools and the languages that many children use at home (for India, see Mohanty, 2010; Singh and Bengay, 2014; Woodhead et al., 2013; also Mackenzie and Walker, 2013). Other studies found that even when the language of the school is the child’s mother tongue, it may be a very different form of that language (e.g. a highly Sanskritised versions of Hindi), which means that considerable

effort is required in learning this variety (D'Souza, 2006: 162; Dyer, 2008). Similar examples can be found in research about Ghana, when the mother tongue of students is not one of the 11 languages supported by the government (Ansah and Agyeman, 2015).

Further difficulties in implementing mother tongue policies were found in Ghana, where there is a lack of resources in all government-sponsored languages (Ankohmah et al, 2012; Ansah and Agyeman, 2015; IEQ, 2000; Opoku-Amankwa et al, 2015). Both the teaching syllabuses and teaching materials for primary schools, apart from text books on Ghanaian languages as subjects, are in English. This means that the teachers had to translate the lessons from English to the language of the locality (Ansah, 2014: 12).). In India, resources have had to be especially created where non-scheduled languages are being used as the MOI (Mohanty, 2010).

Studies of practices in Ghana also uncovered examples of schools instituting practices that were in absolute violation of the policy, such as prohibiting the use of local languages in classrooms and in the school compound, even during play or break time (Ansah and Agyeman, 2015); instituting various forms of punishment to students for not speaking English (Edu-Buandoh and Otchere, 2012); or holding back students in early years due to low levels of English (IEQ, 2000).

4.1.3 Research into perceptions of language and language policy

Another area of research that several studies focused on is perceptions about language and language policies, and how this affects policy implementation. Studies report that mother tongue-based education may not be supported because indigenous languages are associated

with ‘powerlessness and insufficiency’, both in Ghana (Djité, 2008; Mfum-Mensah, 2005; Williams, 2014), and in India, where such attitudes can be witnessed among children as young as seven (Mohanty et al, 1999). There are thus examples in both contexts of mother tongue education being perceived as a means of perpetuating marginalisation (Lee, 2014 for Ghana; cf. Kamwangamala, 2013 for Africa; D’Souza, 2006 for India).

Findings also report strong ideologies of English as a language of education, economic development and social mobility (James and Woodhead, 2014; Woodhead et al, 2012; see also Seargeant and Erling, 2011), as well as assumptions regarding the value of English in the labour market (Erling, 2014; Roy, 2014) and as the language of opportunity (Davis and Agbenyega, 2012; Davis et al, 2013; see also Trudell, 2007). Davis et al (2013), for example, show how Ghanaian students prefer being taught mathematics through English, despite difficulties in speaking, reading and understanding the language because they feel that this will help them to succeed in the world (see also Edu-Buandoh and Otchere, 2012). There is also significant pressure from parents, who generally want their children to speak English, on the assumption that this will provide them with greater opportunities for the future (James and Woodhead, 2013 for India; Norton, 2012; Probyn, 2009; Tembe and Norton, 2011 for Africa).

Such perceptions of English are fuelling the mass migration in India of rural and poor children from government schools to low-cost private schools (where English is often the purported MOI) both in Ghana and India. While the relationship between MOI and learning in low-cost private schools is only starting to be explored, evidence so far suggest that EMI is inhibiting learning, debunking these perceptions (e.g. Rubagumya 2003; Rubagumya et al,

2011 for Tanzania and James and Woodhead, 2014; Nair, 2015; Singh and Bangay, 2014; Singh and Sarkar, 2012 for India).

4.2 An overview of recommendations from the literature

Given the challenges with the current language-in-education policies in Ghana and India reported in the literature reviewed, and the obstacles uncovered, the second step of the review explored recommendations put forward for improving the effectiveness of these policies. The recommendations are not exhaustive, but are aimed at various stakeholders in language-in-education policy. Interestingly, given the vast differences in the national contexts being compared here, the recommendations were surprisingly similar. It should be noted from the outset, however, that while they may stem from empirical studies, there is limited evidence that they will work, and thus further trialling and evaluation is necessary.

1. Changing the rhetoric: ‘sustainable additive multilingualism’ as the goal of language-in-education policies

One common recommendation emerging across the studies covered in the literature review is the need for current language-in-education policies to take into account sociolinguistic realities of these highly multilingual, multi-ethnic contexts (Alidou et al., 2006; Ansah, 2014; Norton, 2014; Rosekranz et al, 2012 for Ghana; Agnihotri, 2007; for India). One means of doing this is by formulating more holistic language-in-education policies that promote what Hornberger and Vaish (2009) have called ‘sustainable additive bilingualism’, or what might also be called ‘sustainable additive multilingualism’ (similar to what others have labelled ‘mother tongue-based multilingual education’ (Mackenzie and Walker, 2013). The term

‘additive multilingualism’ refers to a situation in which the mother tongue is used throughout the educational system (as a MOI and/or in classroom translanguaging), and additional languages are learned without detracting from the development of the mother tongue. This term denotes a recognition that language is a valuable resource, and that teachers may not have fluency in all of their languages. Implicit in sustainable additive multilingualism is a recognition that the mother tongue may be mobilised in the teaching of additional languages, such as English. The term ‘sustainability’ used in this context refers to the capacity of languages to endure through their use in education, and indexes that language-in-education policies are dynamic and future-oriented, taking into account the social context in which they operate (García, 2009).

2. Modelling ‘sustainable additive multilingualism’ in teacher education

Any shift in language-in-education policy rhetoric requires a shift in teacher education, as teachers need pedagogical expertise— what has been labelled ‘language supportive pedagogies’ (e.g. Clegg, 2010). The research therefore recommends that teacher education programmes (both pre- and in-service) provide practitioners with support to develop effective multilingual pedagogic strategies to help their students achieve a range of cognitive and affective learning goals (Ankohmah et al, 2012; Bhattacharya, 2013; Mackenzie and Walker, 2013). Modelling sustainable additive multilingualism in teacher education entails making use of teachers’ own mother tongues and translanguaging. This would provide them with better access to professional learning and would also provide teachers with a positive experience of sustainable additive multilingual education, something their own schooling probably did not offer them. Additionally, teachers should be posted to schools where they can communicate in their students’ languages. If this is not possible, they should be enabled

and encouraged through policy and the curriculum to learn about their students' languages and cultures (Alidou et al, 2006).

3. Enacting 'sustainable additive multilingualism' in the classroom

A shift in language-in-education policy and teacher education ideally entails a shift in classroom practices. The types of changes in practices that are recommended in the literature include identifying, acknowledging and incorporating local contexts and multiple language use in classroom instruction as well as using translanguaging as a pedagogical resource.

Possible types of pedagogic practice that would be enabled through this policy are described by Hornberger and Vaish (2009). These include concrete examples of classroom translanguaging practices such as the teacher focusing primarily on communication and not correcting non-standard student uses; drawing simultaneously on mother tongue and English media to communicate and contextualise the decontextualised curricular content that students are working with; or inviting and encouraging questions to stimulate an interactive dialogic classroom. Fonken (2008) suggests that students be given a chance to think academically in the mother tongue first before responding in English, while Probyn (2009) also points to the value of mother tongue use for exploratory talk and group work. Ramanathan (2003; 2005), in turn, suggests that teachers use the mother tongue to awaken students' interest in stories before moving on to English or to connect Western literary themes to accessible vernacular ones (e.g. using Hindu myths). Noting the importance of translation in English classes, Bhattacharya (2013) recommends that this practice be shifted to devote more attention to syntactic and lexical items – with a strong focus on meaning. Other recommendations include using visuals and more accessible instructional materials, employing highly accessible forms

of teacher talk and prompting and extending student utterances through interactions with the teacher (Clegg, 2010:54).

4. Developing resources for sustainable additive multilingual education

In order to enact sustainable additive multilingual education, solutions need to be sought for the development of resources that facilitate English learning and improve learning across the curriculum (Mackenzie and Walker, 2013; UNESCO, 2016). Studies recommend that these resources should be meaningful to students' lives, incorporate local contexts and multiple languages and feature accessible levels of English as well as themes that are age-appropriate and interesting (D'Souza, 2006; Fonken, 2008; Ramanathan, 2005). While societal multilingualism is often presented as an obstacle in the development of local resources, the literature reviewed here includes instances of how some of these challenges have been overcome. The LaST project in Rwanda, for example, has sought to develop materials that offer bi-lingual vocabulary support; good quality, contextually relevant illustrations; clearly labelled, relevant support activities; and teachers' guides in the mother tongue and English to complement these (see Milligan, this volume). Other studies have shown that where resources have been developed in local languages in Africa, this can help to standardise such varieties and promote their use for wider communication (Rosekrans et al, 2012; Trudell, 2007). Such materials are suggested to be particularly impactful when implemented together with changes to the assessment system, which should also be adapted to allow for multilingualism.

5. Decentralising language-in-education policy

Given the varying sociolinguistic realities uncovered in the research reviewed, and that students in some sites have more access to and experience with English than others, some

studies have argued for decentralisation of language policies – with the specifics of their implementation being determined locally. This would involve selecting from the various models of multilingual education proposed by Heugh et al (2007: 128-130) which feature different options for when and how to shift from one medium to another (though this shift need not be final); what the balance is between learning through mother tongues and learning through English; and how much time in the curriculum is dedicated to the learning of English and the learning of local and national languages.

Studies from Ghana recommend starting English later in the curriculum to give students more time to learn the language before they are asked to learn through it (Alidou et al, 2006; Davis and Agbenyega, 2012; Davis et al, 2013). However, the percentage of teaching in local languages and English, and when and how the shift occurs might be best decided at local levels with consideration of the linguistic ecology of the area and the levels of multilingualism and English proficiency. Thus more information needs to be available about the local linguistic ecology and levels of English among the population in order to trail and evaluate the balance of languages in schools most conducive to attainment and progression. This would also be relevant to India, where levels of English differ vastly in various regions, coupled with a lack of recognition of the various home languages students speak.

6. Addressing economic realities

The literature reminds us that significant resources need to be dedicated to the implementation of language-in-education policy (Hamid et al, 2013). It therefore recommends realistic estimations of the cost of implementing policies across the system, along with managing expectations about the amount of time it takes to experience results

(Alidou et al., 2006; Clegg, 2010; Hamid et al, 2013). Heugh et al (2007:38-42) provide details of various models of multilingual education and what they cost, arguing that using the mother tongue in education is not necessarily more expensive than the alternative, particularly when taking the long view and considering what one saves in terms of reducing grade repetition and attrition. More attention needs to be paid to the long-term costs of implementing language-in-education policies in Ghana and India, and discussion of these costs should be discussed and evaluated more openly so that realistic plans for implementation can be made.

7. Greater collaboration between stakeholders

Many of these studies suggest that key to implementing successful language-in-education policies that address sociolinguistic and economic realities is greater collaboration between stakeholders. This involves advocacy and awareness-raising as a means to shifting attitudes. Within schools, ministers, local authorities, head teachers, teachers, parents and students should all be informed about the language-in-education policy adopted, as well as research concerning the value of using the mother tongue as the MOI (Davis and Agbenyega, 2012). Alidou et al (2006:83) suggest, for example, that the public should be informed of ‘the critical role of both African languages and other languages of wider communication for successful and sustainable development of literacy, success in education, and national development’. Trudell (2005) also promotes sharing research that highlights the advantages of using local languages alongside English. This could help shift attitudes away from overestimating the role of English as a tool for learning and teaching, towards accepting multilingualism as an asset and resource (Alidou et al, 2006; Rosekrans et al., 2012). Indeed the IEQ project (2000) found that some parents changed their attitudes in favour of using

local languages as MOI once they were informed about what it was and why. To ensure participation in and support for multilingual education, it is suggested that schools work closely with parents and members of the community (cf. Buckler, 2015). Doing so provides an additional means of valuing local voices and bringing local languages into schools. It also allows teachers to regularly review the curriculum and ensure that it mirrors students' needs and identities (Igboanusi, 2014).

Finally, in order to support the ideological shifts required, it is recommended that governments develop a communication or advocacy strategy which informs and engages communities in language-in-education debates, with awareness also raised through TV and radio campaigns (Rea-Dickens et al, 2013).

8. Changes at the systemic level

Language-in-education policies may be in need of review, and following the recommendations proposed above would surely have positive results on their implementation. It must, however, be recognised that such changes need to be accompanied by significant action at the systemic level. As Dyer (2008: 251) notes, states must first provide 'appropriate working conditions and support for schools that serve the most disadvantaged groups in society'. Moreover, better regulatory structures in place to reinforce policies (Clegg and Afitska, 2011). Finally, concrete efforts at national and regional levels will have to be made to reduce the role of English as a gatekeeper to public sector jobs and other economic opportunities. It should be recognised that actions of such magnitude are required to propel the systemic and ideological shifts in the national value system, which would provide a suitable environment for sustainable additive multilingualism to take root.

5. Conclusion

This paper presents the initial results of a rigorous review of MOI-related research on Ghana and India. It finds that research to this date has focused mainly on the effectiveness of language-in-education policies, problems hindering the implementation of these policies, and attitudes to these policies. This review, though covering two contexts which differ significantly in their linguistic landscapes and current language-in-education policies, finds that similar issues are arising, contribute to challenges of providing equitable, quality education.

It then presents an overview of the recommendations from this research for ensuring the effectiveness of language-in-education policies in Ghana and India. Specifically, there is a need to create pedagogical spaces in which students' mother tongues are valued and promoted as pedagogical resources, and there are opportunities to successfully learn English. There is a need for adjustment to policy rhetoric to be in line with linguistic realities, and for implementation plans to be realistic and achievable. Finally, language planners and policy makers must find positions from which to engage with societal attitudes about which languages and language-in-education policies foster human development. These findings point towards a need to embrace the idea of 'sustainable additive multilingualism' in policy, as doing so would enable an environment where linguistic diversity is embraced, multilingual strategies would be drawn on in classroom practices and therefore also be central to teacher education and resource development. The adoption of this approach also entails a focus on all stakeholders in education policies, and the need for policies to recognise sociolinguistic and economic realities, and to work at all levels to implement change.

While a wide variety of studies have been considered for this review, the evidence base on which the recommendations are made are relatively weak. More evidence needs to be collected about the relationship between MOI and learning in both Ghana and India, and a greater understanding is needed of the potential of the recommendations proposed. The recommendations made here could therefore be potentially criticised as idealistic. This is why the next step in this research project is to liaise and work in partnership with local stakeholders to clarify what it means to enact these recommendations and gain further understanding of the obstacles that work against them. In doing so, this research aims to make an important contribution to ensuring that MOI policies in LMICs can support students to achieve their learning potential and enhance their capabilities and opportunities.

[6331 words]

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