

# Policy & Practice

Teaching and Learning in English in Punjab Schools



Campaign for Quality Education



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POLICY AND PRACTICE  
TEACHING AND LEARNING IN ENGLISH IN PUNJAB SCHOOLS



Society for the Advancement of Education

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The Society for Advancement of Education (SAHE) is a nongovernmental organization established in 1982 by a group of concerned citizens and academics. It builds on the belief that educational justice entails not just access to school, but to quality education, for all children in Pakistan. SAHE works through an extensive network, the Campaign for Quality Education (CQE), to conduct collaborative research and evidence-based advocacy on key issues to influence educational reform. It has sought such evidence in the realm of data related to school inputs and student outcomes, budgetary analysis, public sector reform and privatization, teacher professional development, language as well as citizenship education.

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# Preface

The issue of the Medium of Instruction (MoI) to be adopted for schooling has been the subject of considerable debate in Pakistan. In particular, the role of English has been the focus of much attention. It has been seen as a private as well as a public good on the one hand while being decried on the other as the legacy of a colonial past and the central feature of an 'apartheid' educational system. Broadly, though, education in English has come to be conflated with quality. The adopting of English as a MoI by elite private schools, low fee private schools and government schools in Punjab, in that order, is an instructive illustration of the trend. However, generally speaking, children attending the latter two categories of schools do not appear to acquire proficiency in English. If true, that has serious implications for learning that goes beyond a particular school subject: it is not just the language that they are not learning; they are also not learning other subjects taught in English. Considering that the overwhelming majority of children attend government schools or low fee private schools, we felt that a study that takes a closer look at language use by teachers as well as students in our classrooms was warranted. Our focus in this study is on government schools.

As a backdrop, the study briefly looks at language policy in Pakistan in an historical perspective and outlines the Punjab government's rationale for introducing the current policy, making English the medium of instruction in public sector schools from grade-1. The literature review summarizes the discussion by scholars with regard to the appropriate medium of instruction as well as insights provided by research in language and learning in multilingual contexts in other parts of the world.

The study has analyzed data derived from detailed observations in 126 classrooms in six districts of Punjab, spanning the subjects of Math, Science and English to develop insights into language use. What is equally important, when it comes to issues of language and learning, are the perceptions of parents and teachers. The study reports on their views with regard to the language policy. The study was undertaken with a view to providing support for an appropriate language policy that is sensitive to the process of the child's cognitive development as well as serving to ensure proficiency in English and Urdu.



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# Acronyms

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B.Ed.	Bachelor of Education
BA	Bachelor of Arts
DSD	Directorate of Staff Development
EFA	Education for All
FGDs	Focus Group Discussions
L1	First Language
L2	Second Language
LFP	Low-Fee Private
M.Ed.	Master of Education
MA	Master of Arts
MOE	Ministry of Education
MoI	Medium of Instruction
NEP	National Education Policy
OSI	Open Society Institute
PEAS	Punjab Education Assessment System
PEC	Punjab Examination Commission
SAHE	Society for the Advancement of Education
SLO	Student Learning Outcomes
TESOL	Teaching of English as a Second Language



# Executive Summary

The status assumed by English, and the ultimate conflation of English with quality, draws on more than one strand in the context of Pakistan. The origins of the phenomenon can be traced back to the British domination of India in the 19th century and the rise of English as the language of the court and official discourse. In Pakistan, as in many other post-colonial societies, English remained the language of the elite and hence of mobility and power. The primacy of English also manifested itself in the education system in the form of elite schools using English as a Medium of Instruction (Mol). But it is not just the past that privileges English, its importance has only been amplified in this era of economic globalization where English has become the international language of communication. In the domestic context, those who achieve competence in English are better placed to access jobs in the public as well as the private sector.

These historical developments have been instrumental in increasing the demand for using English as the Mol in schools. In the process of meeting this demand, the educational system has ended up in a situation in which the formal medium of instruction usually differs from the student's first language. An unfortunate consequence of this development is the conflation of quality and English. Parents target English medium schools not after ascertaining that such schools offer high quality instruction rather, they appear to be motivated to send their children to such schools with an expectation that their children will learn to communicate well in English.

Several attempts to introduce English into public sectors schools have been made by various governments. Most recently, the Punjab government has sought to address this demand by declaring in 2009, that English will be the Mol in government schools from Grade 1, a decision to be effected by way of a strategy of gradual implementation.

In this study the issue we wanted to investigate is this: Does the policy of adopting English as the medium of instruction at the primary level support meaningful teaching and learning in Punjab government schools? In order to answer the question, quantitative discourse analysis was conducted for a total of 126 observations of Math, Science and English. As part of this analysis, we counted teacher and student utterances<sup>1</sup> in different languages, mainly English, Urdu and Mixed<sup>2</sup>. Further, we conducted an in-depth review of a selection of transcripts to complement the quantitative analysis. We sorted the utterances according to their role/purpose in the

<sup>1</sup> "An utterance is a natural unit of speech bounded by breaths or pauses". What is Utterance? Retrieved from: (<http://www-01.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatsAnUtterance.htm>)

<sup>2</sup> Mixed use of language refers to intra-sentential and inter-sentential code-switching between English and Urdu

classroom interactions. In addition to looking at the use of language in the classrooms, we also elicited the perceptions of the main stakeholders through interview and focus group discussions. Specifically we reached out to 21 head teachers, 38 teachers and 152 parents to assess the implications of the policy from their perspective.

Findings from the study show that the use of English by teachers is relatively greater in English classrooms but still only 36%. So around one-third as compared to approximately one-fourth in Science and Math classrooms, 28% and 23%, respectively. Mixed utterances are about 41% in the English classroom whereas there are about 62% in Math and 53% in Science. Urdu was pre-dominant as the host language for all the communication taking place in the classrooms in all the three subjects.

Teacher talk was mostly restricted to textbook reading and behavioral commands.<sup>3</sup> Questions and explanations constituted less than a third of the talk. The questions were mostly closed-ended and explanations were short. Such communication did not appear to encourage students to express their understanding either.

In all three subjects, teachers frequently switched back and forth between Urdu and English. They also attempted to use specialized vocabulary i.e. certain subject specific terms inserted in Urdu sentences. However the use of English words in Urdu syntax does not appear to be strategic or purposive. In fact when teachers code-switch, they are not necessarily using the most appropriate English words within Urdu syntax either.

The competence of teachers in English comes across as a major issue. Even when some teachers were able to explain grammatical structures in the English lessons, they remained reluctant to communicate in English. In the case of Science and Math, it appears that teachers' subject knowledge deficit combined with their lack of facility with the MoI compromises the quality of teaching.

Textbook reading by students was the highest in English classrooms at 59% with 22% in Science and very little in Math. Mixed use of language was 13% in English and 15% in Science with the highest in Math at 45%. There was also a higher incidence of use of Mathematical terms by the students in Math, which was 35% of the student talk. Whereas in Science, we observed that 56% of the communication by the student was either a short response or names/functions of things.

As the data from the Science and Math classrooms amply demonstrates, students tend to employ English sparingly and do so almost exclusively by way of short responses or general names of functions or things. They almost invariably take recourse to Urdu if the matter does not pertain to a general response or the textbook. There was little evidence of use of English to communicate in full sentences—except when reading from the textbooks or choral repetition after teachers.

Our observations did not record any instances of children asking substantive questions. The only instances of sentences ending with question marks involved children asking teachers' permission to do something. Children seldom explained any concept. Learning was made visible only through

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<sup>3</sup>Behavioral commands such as "open it", "sit down" and variations of "yes", "no" constitute short responses.

short, single or two word, responses to teacher prompts.

The implications of language use in a multilingual classroom differ for subjects. In Math and Science, the primary purpose is the teaching of these subjects and in theory any combination of languages achieving that objective should be acceptable. In the case of English the medium and the subject converge. If the medium itself is the subject, it needs to dominate the lesson. Going by our observations, there is extensive use of Urdu in English classrooms. This makes the learning of English by the students less likely. In a situation where learning a second language is difficult for the student, the occasional recourse to his or her first language to aid comprehension is considered appropriate. But sustained use of the first language by the teacher, at a time when the objective is to teach the second, will make it harder for the student to learn the latter.

Teachers are using English terms in both Math and Science, and students are also repeating them. But this, on its own, does not suggest a change in the language of learning and teaching, which continues to be Urdu. The specialized vocabulary is introduced mostly through intra-sentential code-switching. Even so, instances of incorrect usage abound. While students are learning the names of concepts and operations in English, they are also frequently learning to use these terms in inappropriate and incorrect ways.

The findings suggest that the opportunities for meaningful interactions conducive to learning of Math, Science and English were fairly restricted. In English, the limited oral interaction and communication between the teacher and students where a major objective is the learning of language is particularly significant. In Math and Science, we found very little evidence of teachers communication aimed at engaging students in activities, open-ended questions, or encouraging students to express their conceptual understanding. It is not entirely clear as to how the introduction of additional cognitive burden through the use of English will help address pre-existing issues and raise the quality of instruction in Math and Science.

Outside textbook reading, classroom interaction is primarily characterized by what is often referred to as safe-talk. Essentially, this constitutes behavioral commands by the teacher and routine, mostly confirmative, responses by the students. Safe talk does not indicate quality teaching and learning. Under these circumstances, teachers primarily use English to read from textbooks, to pass simple instructions to children, and do not use it to pose problems to children, help them solve those problems, and express their solutions. Thus making English the MoI in circumstances where both teachers and students are not already in a position to communicate in English runs the risk of causing overall deterioration in the quality of education.

It can certainly be argued that traditional practices of instruction, which precede the recent shift in the language in education policy, did not encourage children to ask questions either or to provide meaningful responses, and express themselves clearly. But, at a minimum, such expressions, which are central to quality learning, require a certain degree of competence in the language of learning and teaching. So, an emphasis on these, in a language that children are more comfortable with, would be more likely to improve the quality of learning. Conversely, a shift to English appears to put

such engagement on the part of the children at even greater remove as the observed utterances in English indicate a tendency to resort to safe talk, in a bid to comply with expectations rather than to communicate. Thus, if the policy objective is to improve the quality of education in Math, Science and English, then a shift in medium of instruction may actually work against such an objective. The findings of this study suggest that switching to English has certainly not helped address the major shortcoming in existing teaching practices.

Coming to perceptions among parents and teachers with regard to the policy, as expected, a very high percentage of parents, i.e. 70%, approve, equating the greater emphasis on English with increased prospects for their children to learn English, a skill they understandably value highly. However, a majority of teachers and head teachers, around 70%, found the policy of teaching Math and Science from Grade 1 problematic. Among the 30% who favor the policy, a large percentage, add a crucial qualifier: the government must put in place an enabling setting to ensure the success of this policy. This puts a question mark against their approval and may be indicative of their concern at the implications of dissenting from official policy.

So while parents conflate the policy of using English as a medium of instruction from very early on in school with improved prospects for the learning of English, a majority of teachers and headmasters more familiar with the actual situation in the classroom do not endorse the policy and many of those who do add a virtually nullifying caveat to their endorsement; to say that a proper enabling environment must be provided for successful implementation of the policy of English as Mol, is also to clearly suggest that one does not exist right now in the classrooms.

Based on existing research and global experience we have provided some tentative recommendations: English needs to be taught at the primary level as a subject from Grade 1, or later, depending on the availability of competent teachers and not as the Mol. Based on evidence from research on language and learning it is advisable to use the first language or proximate language as the Mol in the first three grades. However, it would be useful to engage in deliberations with experts to determine the most appropriate developmental stage at which to begin using English as Mol. Certainly, there is a need to investigate more fully the area of teaching of English as a second or foreign language and train teachers and develop materials accordingly. There is also a need to review the policy of using English as Mol in Math and Science. There is considerable merit in the argument that at advanced levels of education in these subjects fluency in English can help. However, at the earlier stages of schooling what clearly matters more is that the child be helped to gain a basic understanding of a new subject and this is best done in the language that he or she is most comfortable with.

If the language policy is to be reviewed, not least with a view to ensure that children actually do acquire proficiency in English, the evidence from this and other contexts will need to be widely shared with stakeholders in order to encourage a review of deeply held beliefs with respect to language and learning. This is essential if we are not to continue to undermine the prospects of genuine learning for millions of children in Punjab as well as in Pakistan as a whole.

# Introduction

*At the heart of this study is the assumption that good teaching implies presenting content to children appropriately in a language that they understand.*

The debates about the Medium of Instruction (MoI) are as old as the advent of mass schooling. For multilingual societies, the challenge is even greater as they often need to make difficult choices about MoI. Making this choice becomes particularly difficult when the language of power and privilege in a society is different from the first language of its inhabitants. In such circumstances, providing a level playing field to all citizens, which remains an important purpose of mass education within a democratic dispensation, entails requiring students from a very early stage to attain competence in a language other than their own.

In many post-colonial societies, the so-called English medium schools have emphasized the use of English, which remains associated with higher social capital, as MoI. In Pakistan, a small number of high-end or elite English medium schools have been a feature of the educational landscape since independence. More recently, low-fee private (LFP) schools have also formally adopted English as the MoI to bolster their claim of delivering quality education. For their part, the public sector schools have been largely using Urdu as the MoI. However, the Government of Punjab has recently decided to declare English as the MoI for all public sector schools in Punjab. This policy shift comes in the midst of, and is justified on, the basis of the growing importance of English as the global language of Science and Commerce.

There is no denying the fact that those who are competent in English are better positioned to benefit from opportunities associated with globalization. Certainly, in Pakistan, competence in English makes better jobs and opportunities more accessible. Therefore, it appears entirely reasonable to find ways and means for enabling our children to develop competence in English. As noted above, even the LFP schools, catering to children from low-income groups, have now adopted English as the MoI. To what extent they actually succeed in making children proficient in the language, given the paucity of qualified teachers<sup>4</sup> and the absence of an enabling environment is another matter. But the LFP schools' ability to market themselves as English medium schools appears to have contributed to their popularity and rapidly rising enrolment.

Now, the Government of Punjab has decided to adopt English as the MoI for public sector schools in the province as well. It may well be a calibrated response to a need to help our children learn an important global language of communication. But, in part, it may also be a matter of following in the footsteps of the private sector by way of using English to project quality. In any case, we cannot ignore the fact that the great majority

<sup>4</sup> "62% of the private school teachers and 56% of government teachers registered scores in the lowest possible bands in Aptis test". (Can English Medium Education work in Pakistan? Lessons from Punjab - PEELI Report, British Council, 2013)

of children in Punjab use a local language as a language of communication. In routine interaction, it does not appear easy for them either to understand what is being said in English or to articulate what they want to say in that language. Establishing English as MoI, therefore, runs the risk of curtailing the meaningful communication, which is sine qua non for quality education.

Since learning and language are deeply intertwined, it seemed appropriate to investigate how teaching and learning is actually taking place in classrooms across Punjab. In the study reported in this document, the Campaign for Quality Education (CQE) has reached out to 21 schools distributed across Punjab to observe as many as 126 lessons in Math, Science, and English language. The purpose of the study was to develop insights about the implications of introducing English as the MoI, especially in the often disadvantaged schools of Punjab.

At the heart of our study is the assumption that good teaching implies presenting content to children appropriately in a language that they understand. Typically, the language that children understand best is the one in which they learn to communicate in their homes. The reasons for the choice of a particular language as MoI may be political, cultural, or economic. Yet, whatever the reasons may be, the choice of the language of instruction has a profound influence on the ability of teachers and their students to communicate meaningfully and on the latter's development of understanding and learning gains. Thus, the problem of developing a modicum of quality is deeply intertwined with resolving the question of MoI. The political and economic stakes associated with a particular language in a society can lead to a perception that the quality education is synonymous with using a particular language as MoI at all stages of education, *including the earliest*.

## **Salience of English**

The status assumed by English, and the ultimate conflation of English with quality, has many reasons in the context of Pakistan. The origins of the phenomenon can be traced back to the British domination of India in the 19th and 20th centuries and the rise of English as the language of the court and of official discourse. In Pakistan, as in many other post-colonial societies, English remained the language of the elite and hence of mobility and power. The primacy of English also manifested itself in the education system in the form of elite schools using English as MoI. But it is not just the past that privileges English, its importance has only been amplified in this era of economic globalization where English has become the international language of communication. Since, it provides an access to cutting-edge knowledge in diverse fields; those who achieve competence in English are better placed in the public as well as the private sector.

These historical developments have been instrumental in increasing the demand for using English as the MoI in schools. In the process of meeting this demand, the educational system has ended up in a situation in which the formal medium of instruction usually differs from the student's first language. Now, this is not an issue for the very small number of children coming from well-off families with access to English and, more generally, a variety of educational inputs, at home. Their parents are also more likely to be able to afford schools that have better staff and other facilities. An unfortunate consequence of this development is the conflation at two levels: quality and English on one hand and

learning English and learning school subjects in English on the other. The parents target English medium schools not necessarily after ascertaining that such schools offer high quality instruction in all school subjects; they appear to be motivated to send their children to such schools with an expectation that their children will learn to communicate well in English. So, in the parents' perception, English serves as a proxy for quality, in all subjects. Again, it must be emphasized that the context here is the earliest stages of schooling.

One of the purposes of mass education is to provide a level playing field to all children by helping them to acquire the capacities needed to succeed in a competitive economy. Since inequity in education appears to be related to Mol, with English medium on the advantaged end of the educational spectrum, universalizing English medium schools appears to be a justified response to equity issues.

### Language Policy in Perspective

In Pakistan, the issue of language in education has been seldom linked to pedagogical considerations; rather the issues of nationalism and politics have consistently overshadowed the discussion. At the time of independence, Pakistan had a negligible number of private schools with public sector schools being the norm. The first educational conference in 1947 linked the language in education policy to the making Urdu "the lingua franca of Pakistan" (Rahman, 1996). As such it was now to be taught in schools as a compulsory language, even though Urdu was the first language of a very small minority of its citizens. Urdu was already being used in some parts of Pakistan as a Mol. For example, Urdu had been promoted in Punjab by the British as the language in education despite efforts by educationists to give precedence to Punjabi (Leitner, 1991). In East Pakistan, Bengali was the first language of nearly 55% of the population. But, according to the report of the Commission on National Education (1959) (also known as the Sharif Commission):

"We are firmly convinced that for the sake of our national unity we must do everything to promote the linguistic cohesion of West Pakistan by developing the national language, Urdu, to the fullest extent".

Of course, there were exceptions such as missionary schools and elite institutions where teaching in English was the norm, but these were few and far between. So, the formula was simple; no use of the regional languages in school as this was considered divisive in the national narrative, Urdu for the masses who needed to be integrated and English for the elite that needed access to modern ideas and knowledge in order to lead.

Notwithstanding, interventions and changes in formulation, this formula has essentially held sway across subsequent policies and intervening years. Under Zulfiqar Ali Bhutto rule (1971-77), the role of Urdu was again formally emphasized in the context of nationalism although the provinces were encouraged to develop the regional languages. However, given the political economy of the language issue in terms of status, job opportunities and so on, the norm largely remained constant: send your child to an English medium school or settle for an Urdu medium one. After General Zia ul

Haq took power in 1979, Urdu was again emphasized as the language of national and Muslim unity and it was announced that school-leaving board exams would be conducted in Urdu from 1989. But this decision, under the Benazir Bhutto Government rule, was reversed and soon thereafter her Government announced that English would be taught as a subject in all schools from Grade 1. Up to that point, English was taught as a subject from Grade 4. Later in 2006, a white paper commissioned by the Musharraf Government recommended that English should be made a compulsory subject in all public schools depending on the availability of teachers starting from Grade 1 and from Grade 6 onwards it was recommended to use English as Mol for Math and Science.

In line with above mentioned developments in language policy the National Education Policy (NEP, 2009) emphasizes the role of English language and its nexus to employment:

"A major bias of the job market for white collar jobs appears in the form of the candidate's proficiency in the English language. Most private and public schools do not have the capacity to develop the requisite proficiency levels in their students. English language also works as one of the sources for social stratification between elite and non-elite. Combined with employment opportunities associated with proficiency of the English language the social attitudes have generated an across the board demand for learning English language in the country" (NEP, p. 27).

In order to address the issue of inequitable access to learning English language, the NEP suggested the development of a comprehensive plan of action for "implementing the English Language Policy, in the shortest possible time, paying particular attention to disadvantaged groups and lagging behind regions" which includes curriculum from Grade 1 onward shall include English (as a subject), Urdu, one regional language and Math, (NEP, p. 28). The provincial and area education departments were given the choice to select their Mol up to Grade 5. From Grade 6 onwards, English will be the only Mol for Math and Science. The option to teach Math and Science in English/Urdu or the official regional language is for only 5 years as all provinces are expected to teach Math and Science in English only from 2014.

In March 2009, the Government of Punjab announced that some selected government schools in each district will be converted from Urdu Mol to English from the beginning of new academic year. This policy was to be implemented in a phased manner in Grade 1, Grade 2 and Grade 6 with the idea of converting all schools to English Mol gradually over the next 4 years.<sup>5</sup> This attempt stand out for its seriousness in compared to previous such initiatives.<sup>6</sup>

The rationale for this policy change<sup>7</sup> was based on four key points:

- It is important to have a uniform system of education. The class division in the education

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<sup>5</sup> In 2009, 588 High schools and 1103 government community model girls' primary schools were converted. In 2010, 1176 High and Higher secondary schools and 1764 Elementary schools and 7056 primary schools were changed and finally in 2011, all the government schools from primary to higher secondary were converted.

<sup>6</sup> For instance DSD teacher guides in English and a list of 3,000 English words were made available for teachers to enhance their vocabulary.

<sup>7</sup> This was stated in a notification issued to all government schools.

system created through parallel school systems i.e. the public and the private sector has led to stratification of society over the use of English and Urdu MoI's. This will affect the collective thinking of the nation. For this reason, the MoI will be uniform in all the public schools similar to the examinations for Grade 5 and 8.

- The choice between Urdu and English for different subjects has been made on the basis that subjects such as Science, Math and English are best taught in the same language in which their body of knowledge exists. Therefore, the MoI for teaching these subjects will be English. However, Urdu and Islamiyat will be taught in Urdu. In case of teaching Social Studies, schools will have the right to select the MoI, as this subject covers topics which include local as well as international knowledge.
- The aim is to reduce the exploitation done by the private sector schools by attracting parents from all segments of the society including children from economically challenged households in the name of English MoI. The Government of Punjab wants to provide a reliable alternative.
- This initiative will help in increasing the enrolment in Government schools which will increase the talent pool in the public school system.

Two assumptions appear to inform this policy: first, it will bring the public sector schools at par with the often better-regarded private sector schools. Second, the earlier you make English the MoI, the easier it will be for the child to become proficient in the language. Also, this way English gets taken to the larger population through public sector schools that still cater to a majority of our children. This is welcome given not just the context of globalization but the equally urgent need for taking all kinds of measures to move towards bridging the great class divide at home. But, unless we are willing to deal with design and implementation issues, the results could be very different from what the government hopes for.



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*If children learn the first language well in the initial stage of schooling, learning the second language becomes easier.*

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The first body of literature, consisting mainly of the research and reflection by scholars within Pakistan, has reached different but overlapping conclusions. Some have advocated the use of Urdu as the Mol to be preferred over English as well as other regional languages. This argument is grounded in a need to develop a national identity commensurate with the use of a national language and to stop the current state of 'education apartheid' (Rahman, 1999). According to Cummins (2000), the language in which education is conducted is the language in which basic skills and knowledge are imparted into the population and the language in which the production and reproduction of knowledge is done. In this regard, studies by Salami, Setati and Adler, Ncedo et al. (cited in Jegede, 2011) have advocated the use of first language (L1) to supplement English. The proponents believe that the learning sequence is best formed when constructed along the following trajectory: students acquire basic literacy skills in the first language and communicative skills in the second. They then learn to read and write in the second language (L2), in effect, transferring to it the skills they have acquired in the first. "The pedagogical principles behind this positive transfer of skills are Cummins' interdependence theory (Cummins, 1991) and the concept of common underlying proficiency, whereby the knowledge of language, literacy and concepts learned in the L1 can be accessed and used in the second language once oral L2 skills are developed, and no re-learning is required"<sup>8</sup>. Adding to this, Mansoor (2005) argues for using first language as the Mol with a second language introduced only when sufficient competence has been acquired in the use of first language.

The second school of thought has approached the problem of language in education from a cognitive perspective by adopting a graduated approach in learning of multiple languages beginning with the children's first language in the early years<sup>9</sup>. Coleman's argument finds some resonance in a book length argument on the subject by Zubeida Mustafa (2011) who points out the danger of English becoming a part of the already dangerous class divide and recommends the use of the first language in the early years for all children including those coming from an elite background.

Unlike Coleman, however, Mustafa (2011) does not argue for a sequential linguistic development beginning with the first language and ending with English as a Mol. English, going by this stance, should only be taught as a school subject. Shamim (2008)

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<sup>8</sup> As specialists Lanauze & Snow explain, transfer means that "Language skills acquired in a first language can, at least if developed beyond a certain point in L1, be recruited at relatively early stages of L2 acquisition for relatively skilled performance in L2, thus shortcutting the normal developmental progression in L2" (1989: 337).

<sup>9</sup> See, for example, Coleman, H., (2010). Coleman argues for a graduated approach to the learning of English, starting in the early grades with the first language, moving on to Urdu towards the end of the primary cycle and transitioning to English with an initial focus on developing communication skills. English could ultimately become the Mol provided children developed their cognitive schemas in their first language.

grounds the importance of English in the global and local imperatives but draws the attention of policymakers toward the elements that need to be in place for the policy of 'democratizing' English to work. Failing this, as she warns, the policies aimed at achieving mass literacy in English can actually lead to widespread illiteracy.<sup>10</sup> Shamim's argument differs from that of the others, i.e., she regards the failure of the policy of 'democratizing' English as essentially a matter of implementation. She does, however, warn that if badly implemented, the policy may actually bring down learning levels so that instead of aiding learning it may actually be counterproductive.

The third stream of literature looks at the use of languages in education in multilingual developing countries in particular. This literature views the use of unfamiliar language, i.e. second language as yet another burden in addition to so many other barriers to learning. According to Kyeyune, using English in a multilingual context often leads to unsatisfactory quality of educational performance (cited in Jegede, 2011). For instance, studies (Setati, 2002, 2005; Adler, 1998, 2001; Plüddemann, et al., 1999) on Math learning in multilingual classrooms have shown that pupils perform poorly in Math due to the specialized concepts such as divisor, denominator, standard deviation, quotient, radius, circumference, etc., which cannot be well explained in English. If the use of English as a MoI creates a learning problem in multilingual Math classrooms, then it is necessary to find solutions which are workable in the classroom since developing countries usually do not give enough time to the much needed transition between L1 and L2: "Shortcut transitions try to do too much too fast and fail to produce optimal results" (Benson, 2005).

When teachers and students are not competent in the language of learning and teaching, they preserve their dignity through what Chick (1996) has called safe talk<sup>11</sup>. Where teachers are competent in L2, they often use code-switching i.e. they alternate between L1 and L2—while using L1 as a resource to craft and communicate meaningful explanations in the school, mainly in Math and Science. Numan and Carter (2001) briefly define code-switching, as "A phenomenon of switching from one language to another in the same discourse".

A body of literature also indicates the use of code-switching in the teaching and learning process. In this respect, code-switching tends to be a supporting element in communication of information and in social interaction; therefore serves for communicative purposes in the way that it is used as a tool for transference of meaning. Sert (2005) discussed three functions of code-switching which make it an acceptable phenomenon in a language classroom.

- Topic switch, where the teacher alters his/her language to the first language of his/her students' according to the topic that is under discussion. Thus, a bridge from known (native language) to unknown (new foreign language content) is constructed in order to transfer the new content and meaning is made clear in this way. This is also supported by Cole (1998): "A teacher can exploit students' previous L1 learning experience to increase their understanding of L2." In supporting the existence of code-switching in language classrooms, Skiba (1997)

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<sup>10</sup> Illiteracy is defined as the inability to read and think critically and absence of skills for life-long learning.

<sup>11</sup> The cognitive, intellectual, political ramifications of these strategies have been discussed in depth in the classical work of Martin Jones and colleagues (e.g. Martin Jones, 1995).

suggests that in the circumstances where code-switching is used due to an inability of expression, it serves for continuity in speech instead of presenting interference in language.

- The teacher builds solidarity and intimate relations with the students through affection which is another important function of code-switching.
- The repetitive function of code-switching in an L2 classroom makes it an acceptable phenomenon in a language classroom.

However, it has been discouraged because it will influence one or both of the languages and lead to language decay (Aitchison, 1991). The opponents of this approach argue that code-switching can serve as an indicator of subtractive development of language when students do not have the grasp of a second language firmly enough to communicate; thus reaching for their primary language to fill in the gaps, (Shaussey, Brice, and Ratliff, 2006). Thus, code-switching may be a barrier which prevents mutual intelligibility when students interact with the native speakers of the target language (Sert, 2005).

The studies cited above are focused on language in education but also have wide-ranging concerns including the role of language in the context of the equity imperative as well as cultural pluralism. We share some of the key concerns highlighted in these studies.

However, our sole concern in this study is to focus attention on language in the context of teaching and learning. The key question for us is how is English being used to further learning; be it the learning of other subjects in English or learning of the language itself.



The purpose of the study was to develop insights about the use of English in primary level classrooms of Punjab in both English and other major school subjects. We have attempted to observe if Math, Science and English classrooms have changed in ways that would help fulfill the policy requirement of using English as a MoI.

## Research Questions

Based on the concerns stated in the preceding section, this research seeks to answer the following questions:

- How are teachers using English as MoI in Math, Science and English classrooms?
- What are head teachers,<sup>12</sup> teachers and parent's perceptions about using English as a language of learning and teaching in the classrooms?
- What insights can we develop about the effects of the policy shift to use English as the Medium of Instruction (MoI)?

## Methodological Approach

In order to find an answer to these questions, CQE conducted a mixed-method study involving intensive classroom observations. A closer look at teachers' response to the policy of using English as MoI and its implications for quality teaching and learning requires mapping the use of language during instruction. It also requires ascertaining meaningful interaction in that language. Such interaction is at the heart of the study's concern with the role of language in quality education. The latter, in turn, is necessarily bound up with the use of language by teachers to represent and communicate concepts to students in ways that are developmentally appropriate and that make full use of their existing knowledge and experiential resources.

The quantitative aspect of the research has to do with the detailed analysis of the bilingual classroom discourse. To this end, we observed and recorded interaction between teachers and students for entire sessions across the three subjects. This provided us with insights into the actual teaching and learning process in the classroom that will hopefully generate more informed and constructive debate on the crucial issue of language in education.

Mindful of the absence of the teachers' voice in many such studies, we supplemented these observations and recordings with a large number of interviews of teachers of Math, Science and English. Clarke (1994) points to the gap between the researcher and

<sup>12</sup> For our report, we have used head teachers for school heads to avoid inconsistency issues.

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*To generate an informed understanding of language in education, the study sought to develop insights into actual teaching and learning processes in the classroom.*

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practitioner in this regard and warns against the dysfunction inherent in a situation where teachers are "placed in a position of receiving proclamations from researchers".

The study reached out to approximately 1700 students through 126 classroom observations, 152 parents through 18 focus group discussions (FGDs), 21 head teachers and 38 teachers by visiting 21 schools in 6 districts. Details of data collection methods are given below:

**Classroom Observations:** Observations were conducted in 126 classrooms, 42 each in the subjects of Math, Science and English. Each classroom observation was audio-taped and transcribed. The observation was based on carefully designed instruments by subject specialists and university based researchers in the relevant field. The observation tools were piloted in four schools of Lahore, two rural and two urban.

**Interviews:** Interviews were conducted with 21 head teachers and 38 teachers. Two kinds of semi-structured questionnaires were designed. Head teachers were asked about their opinion on the policy and its advantages and disadvantages, experience of implementing the policy, impact on learning outcomes, the language of assessment tools and their recommendations. Similar questions were used for the teacher interviews with some additional queries with reference to their teaching practices in the classroom. These tools were also piloted and revised based on pilot feedback.

**Focus Group Discussions:** FGDs were conducted in 21 schools with a total of 152 parents. On an average, seven parents participated in each FGD based on their availability and consent. The instrument included prompts aimed at getting parents to talk about the pros and cons of using English as MoI. The parents were encouraged to provide rationale for their opinions on the policy shift.

## **Data Collection Strategy**

The data was collected in January 2013. Linguistic heterogeneity was an important factor in determining the data collection sites across Punjab.

### **District selection**

Based on linguistic diversity of Punjab, we selected data collection sites in each region i.e. North, Central and South by further selecting two districts from each region including Chakwal, Rawalpindi, Sahiwal, Okara, Multan and Muzaffargarh (refer to Table 3.1). We had to drop Rawalpindi due to unforeseen closure of schools during the data collection period. Alternatively, we selected Lahore considering both the cities have relatively similar urban setting.

**Table 3.1: Selected Districts**

Region	District	Language of Daily Use	National Language	Medium of Instruction in Schools
Region	Chakwal	Potohari	Urdu	English
Central	Okara	Punjabi	Urdu	English
Central	Sahiwal	Punjabi	Urdu	English
Central	Lahore	Punjabi	Urdu	English
South	Muzaffargarh	Saraiki	Urdu	English
South	Multan	Saraiki	Urdu	English

### School and grade selection

The new policy has been unevenly implemented in the province. As mentioned, it was initially launched in 588 high schools. Therefore, it was reasonable to select the data collection sites out of these schools. We shortlisted those schools which had convenient access and enrolment in primary sections. We also eliminated schools with multi-grade teaching conditions. Each observer spent three days in a school to be able to comprehensively understand language use in Math, Science and English classrooms. In total, 21 schools were observed.

Selection of the grade for classroom observations was based on the level of policy implementation. This policy, as mentioned earlier, was introduced in 2009 from Grade 1. Currently, the children studying under this initiative were in Grade 4 in January 2013. Therefore, the Grade 4 was selected for classroom observations.

### Training of data collectors

Data collectors were selected based on their prior teaching experience at school level. A two-day intensive training was conducted to acquaint data collectors with the instruments, data collection processes and ethical considerations. The training consisted of the following main activities:

- A field activity to provide them with an opportunity to practice the use of classroom observation tool and audio recording technology in real school environment.
- Exercises to help them in developing accurate descriptions of observed classrooms.
- Practice in the conduct of semi-structured interviews and FGDs in the similar pattern.



*There is little evidence to suggest that the use of English supports meaningful communication between teacher and students in the classroom at the primary level.*

The purpose of introducing English as a Mol is to improve the quality of education in public schools of the Punjab province. Advocates of the policy expect that this move will help children learn English better by providing them with opportunities to communicate in English. They also expect the learning in other subjects to improve as children improve their ability to comprehend and use specialized subject specific vocabularies in English. Our findings suggest that these hopes were not based on pedagogical considerations. The quality of education processes, which include both teaching and learning, are hinged upon establishing meaningful and purposive communication between teachers and learners. Language, as a means of communication, has an indispensable and crucial role to play in this process. Our observation of language in use suggests a preponderance of utterances by both teachers and students that are not conducive to development of meaningful communication aimed at facilitating learning.

The analysis presented below is based on a discourse analysis of 126 English, Math and Science lessons in the Grade 4 classrooms across Punjab. The discourse analysis employed by this study uses several categories ranging from a simple enumeration of utterances in different languages to distinguishing the utterances based on their length, purpose, and effects. There is a notion of quality implicit in this analysis, which needs to be made somewhat explicit before proceeding any further.

Following Krashen (1985)<sup>13</sup>, we regard a quality lesson of English as one in which children both learn as well as are made to use English as their second language. He stated that, "all the lesson or as much as possible should be in L2 [English in our case], and that there is a definite relationship between comprehensible input in L2 and proficiency" (Krashen, 1985, p.14). Gatenby agreed, by claiming that "the language being studied should be the mode of communication in the lesson" (cited in Phillipson, 1992, p. 185). This implies a preponderance of English utterances by both teachers and students, as frequent use of the first language is not considered conducive to learning of English as a second language. However, it does not require establishing a monolingual classroom with English as the sole language of instruction regardless of the students' ability to comprehend. More appropriately, it implies a classroom setting where teachers occasionally revert to the student's first language to aid comprehension.

Accordingly, our analysis of English language lessons aims at determining the salience

<sup>13</sup> Krashen is credited for his theories on second language acquisition. Refer to: Krashen, S.D. (1981). *Second Language Acquisition and Second Language Learning*. Oxford: Pergamon. Krashen, S.D. (1982). *Principles and Practice in Second Language*, Oxford: Pergamon. Krashen, S.D. (1985). *The Input Hypothesis: Issues and Implications*, New York: Longman.

of various languages used in the classroom by focusing on the sentence as well as word count.

In Science and Math, the use of English cannot be construed as central to teaching and learning. The salience of English, therefore, is not as important as it is in the English lessons. In fact, the teachers who are competent in both English and the students' first language do revert to the latter to facilitate meaningful communication and learning. We, therefore, focused more on the count of phrases in English, Urdu, and Mixed languages and their purposes. As will become more apparent subsequently, our purpose was to determine whether the use of language by both the teachers and students was supporting meaningful communication needed for learning.

More specifically, we have mapped teacher and student talk in all the three subjects: English, Math and Science. We have quantified the use of Urdu (first language), English (second language), and Mixed<sup>14</sup>. We have also documented the purposes of teacher utterances after categorizing them in terms of questions, explanations, textbook reading, behavioral commands and subject-specific terminology or procedures (in case of Math and Science).

Our analysis of student talk follows a slightly different trajectory than that of teachers. In English lessons, we have coded the student talk in four categories i.e. Urdu, English and Mixed sentences/utterances and Textbook reading.<sup>15</sup> In case of Math and Science, we focused on counting the instances of the use of English for subject specific terminology, the use of Mixed utterances containing English terms, full sentences in English and behavioral commands. Throughout this analysis, it is assumed that a preponderance of open-ended questions, explanations and opportunities for children to communicate would imply greater opportunities for learning, and, therefore, higher quality teaching and learning practices. On the contrary, if the classroom time is filled with closed-ended questions, textbook reading, and behavioral commands, the quality of teaching and learning is likely to suffer.

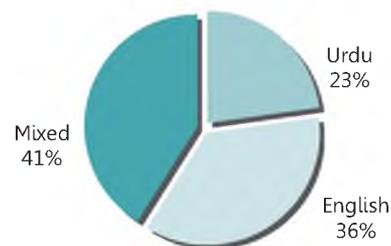
The following sections describe the teacher talk findings for English, Math and Science, followed by similar sections for student talk analysis. At the end, there is a discussion of the teacher and student talk findings.

### Teacher Talk in English Classrooms

We determined the salience of Urdu and English in teacher talk in 42 classrooms by calculating the percentage of utterances in different languages and reviewed classroom data to assess if patterns of language use supported learning of English language.

Figure 4.1 provides an overview of language use by

Figure 4.1:  
Teacher Language Use in English Classrooms



<sup>14</sup> This term encompasses both intra-sentential and inter-sentential code-switching.

<sup>15</sup> We have kept textbook reading as a separate category as for students it is a substantively different category of utterances. This was done after a preliminary review of classroom transcripts through which we found that other than single or two word utterances, most student talk sentences in English were part of textbooks.

teachers in the classrooms. English-only utterances constitute just over one-third of the total on average. Nearly a quarter of all utterances were Urdu-only, while 41% were Mixed language use with inter and intra-sentential code-switching between Urdu and English.

We also reviewed the data for both the incidence of English and Urdu words and how they were used. To this end, we counted the number of English and Urdu words uttered by the teachers in these 42 classrooms. Teachers spoke a minimum of 6 and maximum 957 English words. With respect to Urdu, the minimum words uttered by the teacher were 22 words and maximum were 1854 words. In over 75% lessons, teachers on average uttered 360 English words and 631 Urdu words.

Since Urdu was used more than English, we reviewed the classrooms to see how it was being used in English classrooms. We found that English words were embedded within Urdu sentences and intra-sentential code-switching was common. This is illustrated by Excerpt 1 from an English classroom in central Punjab, where over two thirds (68%) of the total words spoken by the teacher were in Urdu.

### Excerpt 1

Teacher	<p>سورج ہمیشہ اپنے time پہ نکلتا ہے اور time پہ ہی غروب ہو جاتا ہے۔          موسم سرما ہمیشہ دسمبر میں ہی آتا ہے۔          آتا ہے ناں؟</p> <p>Winter season سردیاں ہمیشہ دسمبر میں ہی ہوتی ہیں اور جون میں ہمیشہ گرمی ہی ہوتی ہے۔          season جو ہیں وہ بھی ٹائم کو follow کرتے ہیں۔          اسی طرح انسان نے بھی انسان جو ہیں وہ time کو follow کرتے ہیں۔          کرتے ہیں ناں؟</p> <p>ہماری ساری زندگی جو ہے ہم اپنے time ہم ایک time کو follow کرتے ہیں۔          According to time ہم نے اپنے کام کرے ہوتے ہیں۔          صبح کے Time ہم کام کرتے ہیں۔ اپنے business کو جاتے ہیں۔ سکول جاتے ہیں شام کو سو جاتے ہیں۔          رات کو سو جاتے ہیں ناں؟</p> <p>ٹھیک ہے ناں یہ ایک fix time ہے۔          Fix time میں ہم fix کام کرتے ہیں۔          آج جو ہمارا topic ہے the watch ہے۔</p>
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This excerpt is an illustration of the frequent intra-sentential code-switching. Code-switching has been a focus of interest for scholars investigating teaching and learning in multilingual environments. Earlier studies regarded code-switching as a sort of interference or performance error by deficient bilinguals, "However since the early 1970s, code-switching has been recognized as a rule-governed purposeful linguistic behavior that can fulfill both social and pedagogical functions" (Moodley, 2007). But, in Excerpt 1 no such function appears to be fulfilled. Consider the teacher's phrase: "season jo hein woh bhi time ko follow karte hein."

## Excerpt 2

In another English classroom in Northern Punjab, where again, we found that about 75% of the words spoken by the teacher were in Urdu (refer to excerpt 2).

Teacher	<p>تہوار آپ کے کہتے ہیں؟ اکثر آپ کے ہوتے رہتے ہیں جیسے بھی ہے ناں۔ بہار کے موسم میں یہاں پھولوں کی نمائش ہوتی ہے۔ اس طرح کوئی بھی چیز کوئی بھی تقریب کرتے ہیں تو اسکو کہہ دیتے ہیں festival تو یہ ہمارا کیا مذہبی تہوار ہے۔ آپ لوگ بھی کرتے ہو آگے دیکھنا ہم پڑھیں گے وہی کچھ لکھا ہوا ہے جو آپ ہر عید پر اپنی shopping کرتے ہیں عید پر جو بھی آپ لیتے ہیں۔</p> <p>After the holy month of Ramdan, the Muslims celebrate Eld ul Fitr.</p> <p>Month مہینہ، رمضان۔ رمضان المبارک آپ کو پتہ ہے ناں کہ رمضان المبارک میں روزے رکھے جاتے ہیں۔ ٹھیک ہے ناں 30 روزے رکھتے ہیں۔ کتنے روزے رکھے جاتے ہیں؟</p>
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The only incidence of switching from Urdu to English on the part of the teacher was a sentence from the textbook.

The use of Urdu as the predominant language, as is evident in Excerpt 2, is a problem when interpreted in terms of findings of earlier research (Krashen, 1985). Furthermore, there is no suggestion that teacher's utterances are being used to teach English as a second language. This use of Urdu in an English language is detracting from a focus on the target language.

The word count and examination of classroom excerpts show random and non-purposive code-switching and frequent use of Urdu in ways that are likely to compromise the learning of English as a second language. This may be explained by an obvious lack of competence in English and inadequate training in the teaching of English as a second language. On numerous occasions, teachers were observed making grammatical errors when attempting to speak English without the aid of textbooks.

In some instances, teachers appeared to have a grasp of English grammar themselves, but they were constrained to explain grammatical usage in English by employing Urdu as the host language, as exemplified by Excerpt 3.

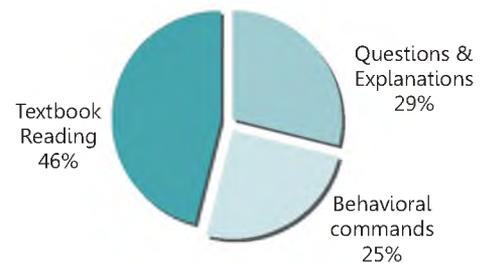
### Excerpt 3

<p><b>Teacher</b></p>	<p>Present indefinite سب کو پتہ چلا کہ نمبر one پر ہے</p> <p>Present continuous نمبر two پر ہے</p> <p>Present perfect نمبر three پر کونسا آئے گا</p> <p>اب میں آپ کو Present indefinite کے بارے میں بتاؤں گی۔</p> <p>سب سے پہلے ہم نے اس کی پہچان کرنی ہے یعنی کہ اس کے فقرے کے آخر میں تا ہے، تی ہے، تے ہیں وغیرہ آتا ہے۔</p> <p>ہاں جی اب اس کا formula آئے گا یعنی بنانے کا طریقہ آئے گا۔</p> <p>کون سی form استعمال کرنی ہے اور اس کی arrangement کرنی ہے</p> <p>کون سی form آئے گی؟</p> <p>First form آئے گی۔</p> <p>سب سے پہلے جملے میں کیا آئے گا۔</p> <p>میں نے آپ کو بتایا ہے کہ اس کا formula کیا ہے؟</p> <p>کوئی form استعمال ہوگی۔</p> <p>اور اس میں first form استعمال ہوگی</p> <p>ہاں جی کریں ابھی یہ میں نے آپ کو بتایا ہے کہ یہ کیسے کرنے ہیں واحد جملوں میں first form لگانی ہے۔ جملے میں</p> <p>Subject, verb, object آئے گا۔</p> <p>اور واحد جملوں میں es یا s کا اضافہ کرنا ہے۔</p> <p>مگر جمع کے جملوں میں es یا s کا اضافہ نہیں کرتا۔</p> <p>اب یہ آپ نے خود کرنے ہیں میں am کا ذکر ہی نہیں آتا۔</p> <p>جس بچے نے کر لیے ہیں کھڑے ہو کر بتائیں۔</p> <p>وہ بازار جاتی ہے۔</p>
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In classrooms where English words were used more frequently, we attempt to analyze their purpose in the form of English utterances. As discussed above, we categorized them in three categories i.e. textbook reading, behavioral commands and questions and explanations.

**Figure 4.2: Types of Teacher Talk in English Utterances (English Classrooms)**

We find that 46% or nearly half of the English spoken constituted textbook reading. Another quarter was made up of behavioral commands by teachers. Taken together, explanations and questions constituted only 29% or less than a third of the total (refer to Figure 4.2).



In most observed lessons, the reading from textbooks was not accompanied supplementary observations or queries that could help students make meaningful responses and enhance their

ability to communicate in English. In a classroom in Central Punjab, we found that nearly 70% of the total words spoken in the classroom were in English but for the most part these came from textbook reading, as exemplified by Excerpt 4.

#### Excerpt 4

<b>Teacher</b>	<p>Listen to me today we learn about the easy chair.</p> <p>Chair in Urdu will we say</p> <p>کرسی</p> <p>ٹھیک ہے؟</p> <p>کرسی ہمارے کس کام آتی ہے؟ Chair ہمارے کس کام آتی ہے۔</p> <p>بیٹھنے کے لئے۔</p> <p>یہ ہمارے گھروں میں offices میں دفاتر میں ہر جگہ available ہوتی ہے ٹھیک ہے؟</p> <p>یہ مختلف قسم کی بھی ہو سکتی ہے اور اس Chair کی طرف دیکھیں۔</p> <p>اسکی back ہے۔</p> <p>the chair اس میں آپ لکھ سکتے ہیں۔</p> <p>You can write in the regard. It is a chair. It is my chair.</p> <p>لکھیں آپ، note book، پینسل نکالیں۔</p> <p>It is a chair. It's my chair. It is my chair. It is my chair. Its color is brown.</p> <p>Its price is two thousand rupees. Carpenter made it. Its color is brown.</p> <p>یہ فقرہ آپ لکھیں۔</p>
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Another excerpt from a classroom in Southern Punjab (refer to Excerpt 5) also shows reliance on textbook reading.

#### Excerpt 5

<b>Teacher</b>	<p>Eid is a day of joy and pleasure for the Musiims</p> <p>عید کا دن۔</p> <p>عید کا دن means joy. لطف اندوز ہونا، خوشیوں بھرا عید کا دن مسلمانوں کے لئے خوشی اور</p> <p>مسرت کا دن ہے۔ خوشی۔ مسرت یعنی ہم بہت خوش ہوتے ہیں مناتے ہیں عید ٹھیک ہے ناں</p> <p>It is a religious festival</p> <p>Religious مڑہی ہمارے پاکستان میں آپ دیکھیں گے کہ ہمارے ارد گرد Christian بھی رہتے ہیں</p> <p>غیر مسلم رہتے ہیں ناں لیکن یہ صرف ہمارا مسلمانوں کا دن ہے</p> <p>The Muslims wait for this day the whole year</p> <p>مسلمان انتظار کرتے ہیں اس دن کا whole year۔ The whole year تمام</p>
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<b>Teacher</b>	<p>اور year سال مسلمان سا رسال اس دن کا انتظار کرتے ہیں۔ کرتے ہیں ناں  آپ لوگ بھی کرتے ہو آگے دیکھنا ہم پڑھیں گے وہی کچھ لکھا ہوا ہے۔  جو آپ ہر عید پر اپنی shopping کرتے ہیں عید پر جو بھی آپ لیتے ہیں  sorry نہیں کے رمضان After the holy month  After the holy month of Ramadan, the Muslims celebrate Eid ul Fitr  Month مہینہ، رمضان۔ رمضان المبارک آپ کو پتہ ہے ناں کہ رمضان المبارک میں روزے رکھے  جاتے ہیں ٹھیک ہے ناں 30 روزے رکھتے ہیں کتنے روزے رکھے جاتے ہیں</p>
----------------	--

Behavioral commands mostly constituted instructions such as stand up, sit down, open your books, read, etc. These behavioral commands cannot be construed as being meaningful language input on the part of the teacher.

### Teacher Talk in Math Classrooms

The language in use in by teachers in Math classrooms was mapped in 42 Math classrooms. Figure 4.3 provides an overall distribution of languages used by teachers.

A more detailed look at teacher utterances reveals that most teachers did not use English as frequently as Mixed language. In over 75% of lessons, teachers made no more than 14 English utterances. A mix of English and Urdu, however, was predominantly the de facto Mol. In Math lessons, this mix consisted of [mainly Mathematical] English terms inserted within Urdu sentences. Thus, the teachers were responding to the requirement of using English in teaching of Math mainly through the use of specialized English vocabulary. Yet, as the data from interviews with teachers suggest, they remained somewhat reticent and uncomfortable in using English terms.

An examination of teacher utterances in English and mixed languages suggests that they mostly consisted of reading from the textbooks, passing explicit instructions, or asking [mostly closed-ended] questions. A snapshot of how teachers used English and Mixed language has been provided in Figures 4.4 and 4.5. Rather than

Figure 4.3:  
Teacher Language Use in Math Classrooms

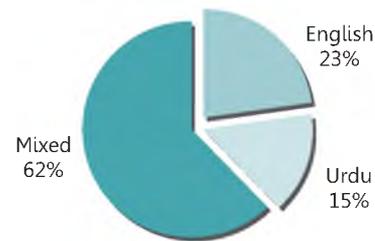


Figure 4.4:  
Types of Teacher Talk in English Utterances (Math Classrooms)

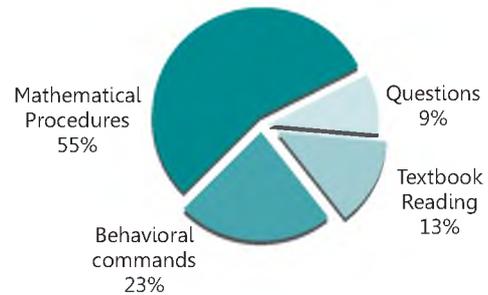
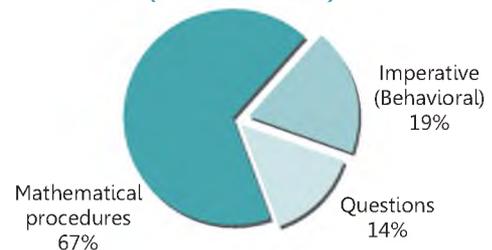


Figure 4.5:  
Types of Teacher Talk in Mixed Utterances (Math Classrooms)



explaining difficult concepts, teachers were prone to providing a simple set of instructions about how to perform particular Mathematical operations.

As can be seen from the figures, teacher utterances involving dictation of steps for the execution of particular Mathematical algorithms are most frequent; 55% of total English utterances and 67% of all mixed utterances consisted of such instructions. An illustrative example has been provided in Excerpt 6.

### Excerpt 6

<b>Teacher</b>	First of all we change the sign of division, firstly we replace the sign of division by multiply. Interchange the numerator by denominator, interchange numerator & denominator
----------------	--

In other similar examples (refer to Excerpts 7 and 8), the teacher dictated exact steps to students to carry out division of one fraction by another fraction.

### Excerpt 7

<b>Teacher</b>	Write down $7/10$ divided into $5/6$ Write down 3 are $2 \times 3$ are six $2 \times 5$ are ten $2 \times 5$ are 10 Write down here [ <i>pointing towards the board</i> ] three and you will multiply 7 multiplied by three Hurry up After cancellation our answer is twenty are by 25
----------------	---

### Excerpt 8

<b>Teacher</b>	جب بھی آپ کریں گے تو آپ کی right side والی fraction ہوگی۔ وہ change ہوگی۔
----------------	--

The choice of an excerpt from a lesson on division of fractions is illustrative of a trend whereby teachers use English to pass simple instructions to execute steps involved in Mathematical operations. Students are expected to remember these steps and follow them faithfully. There are no activities, no explanations, and no communications aimed at helping students understand the procedures that they are expected to implement.

The students whose knowledge of division of fractions is restricted to steps, such as “invert and multiply” as illustrated in the excerpt, get no opportunity to develop deep understanding. They also do not acquire the capacity to use Mathematical knowledge and skills to solve real world problems involving division of fractions. Learning to solve such problems will require a whole range of knowledge and problem-solving skills. A good deal of instructional time should be spent on developing and assessing these important notions (refer to Figure 4.6 for further discussion of this

issue). This requires meaningful communication between teachers and students. Yet such meaningful communication becomes difficult when attempting to communicate in a language with which the student, and in many cases the teacher, is not comfortable.

Figure 4.6 illustrates a problem in teaching at two levels: content knowledge and communication. The teachers do not appear to be encouraging students to think, develop conceptual understanding, and use problem-solving skills. In order to teach difficult concepts well, the teachers need to represent the concepts in terms of things that students are familiar with, make use of students' daily life experience to construct Mathematical problems, and provide multiple representations and explanations of difficult Mathematical concepts.

In addition to developing their subject knowledge, they also need to learn to communicate it in meaningful ways. Yet, this is where the problem also becomes intertwined with the choice of MoI. Meaningful interactions in the Math classroom require greater ability to fluently communicate in the language of learning and teaching. Yet, if the current level of competence in English is any indication at all, it is highly unlikely that a switch to English as MoI will help remove hurdles in the way of quality of instruction in Math.

#### Figure 4.6: Discussion of Quality Instruction in Math Classrooms

*Quality instruction must involve, at a minimum, following existing teacher guides. For every lesson, the guides encourage teachers to tailor instruction to respond to student learning outcomes. They are required to assess the existing knowledge of students through appropriate questions, design and implement purposive activities, conduct and scaffold classroom conversations in ways that meet the learning objectives for the lesson.*

Reconsider the example of division of a common fraction by another common fraction. If the instruction largely involves dictating the steps in the division algorithm to students, then this is what they are expected to remember and use when presented with a problem in the following form:

$$\frac{18}{7} \div \frac{16}{21}$$

Students who remember these instructions will perform the inversion, convert the division form into a multiplication form, and find the answer as follows:

$$\frac{18}{7} \div \frac{16}{21} \longrightarrow \frac{18}{7} \times \frac{21}{16}$$

The ability to solve this problem depends entirely on student's ability to remember to invert the divisor and their knowledge of whole number multiplication. It does not require any conceptual understanding of division of fractions. Without such understanding, they are not prepared to solve problems of the form:

*How many halves are there in six fourth? Or*

*The longest race on our tehsil sports day track is 3/4th of a mile long. The organizer wants to place a water cooler every 3/8th of a mile. How many coolers will be needed?*

A proper development of concepts and relationships among fractions is essential for understanding operations on fractions. For this communication of concepts to take place, meaningful interaction in a language with which both teachers and students are comfortable with, is a pre-requisite.

## Teacher Talk in Science Classrooms

The overall distribution of language used by teachers in 42 Science lessons across Punjab has been provided in Figure 4.7. The use of mixed language at 53% was higher in comparison to English and Urdu utterances at 28% and 19% respectively. In over 75% of the classrooms, there were 25 or less English utterances and about 44 or less mixed language utterances.

Our coding of teacher talk data in Science lessons reveals similarities as well as differences with the use of language in Math lessons. As mentioned above, teachers used more English in Science lessons than in Math. However, on closer inspection this increase could be attributed to more frequent textbook reading in Science subjects. A difference was that teachers did actually try to explain the passages read out from the textbooks in Mixed language or Urdu. Hence more instances of inter-sentential code-switching were documented in the case of Science lessons. A snapshot of how teachers used English and Mixed language is given in Figures 4.8 and 4.9.

A comparison of the pie charts shows that most English utterances consist of reading from the textbooks, while all explanations are given in Mixed language. These mixed utterances typically follow the reading of textbook passages in English and, therefore, represent an instance of purposive or strategic code-switching (Moodley, 2007). Such explanations were about 57% of all mixed utterances, however (an example of mixed utterances is given in Excerpt 9), while teachers attempt to switch code to explain the textbook contents, the choice of words is not always appropriate. As an example, consider the fourth line after the code is switched. The teacher's use of the word "combine" in this line is awkward. The correct English translation of this sentence is, "machines are made of different parts working together". This is an illustration of a frequently occurring problem. Teachers are not necessarily using the most appropriate English words, when using them within an Urdu syntax. There are also numerous instances of inappropriate insertion of English terms in instances of intra-sentential code-switching.

Figure 4.7:  
Teacher Language Use in Science Classrooms

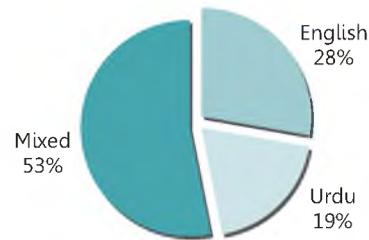


Figure 4.8: Types of Teacher Talk in English Utterances (Science Classrooms)

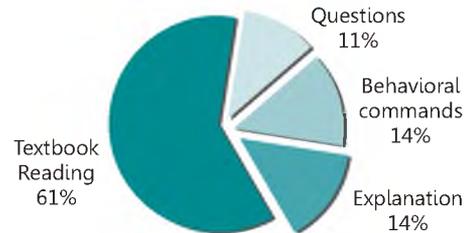
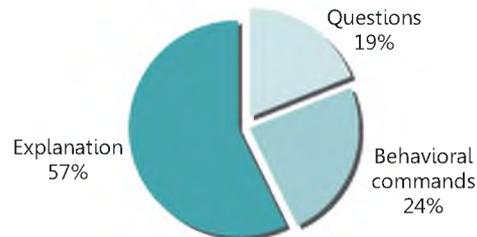


Figure 4.9: Types of Teacher Talk in Mixed Utterances (Science Classrooms)



## Excerpt 9

<b>Teacher</b>	<p>We use many machines in our daily life. Bicycle, motorcycle, motorcar, sewing machine are examples of machines. Machines have many parts, which work together.</p> <p>[Reading from the textbook] [Code switched from here onwards to mixed language]</p> <p>ہمارا body جو ہے۔ ہمارا جسم جو ہے same body ایک machine کی طرح سے work کرتا ہے۔ جس طرح machine کے مختلف different parts ہوتے ہیں اور وہ combine ہو کر اکٹھے ہو کر مل کر کام کرتے ہیں۔ اسی طرح سے جو ہمارا body ہے وہ ایک machine کی طرح سے work کرتا ہے۔</p>
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Another example is given in Excerpt 10. Here the use of several English terms within the Urdu syntax appears somewhat forced and inappropriate. Consider, for example, the use of "around" in the fifth line. Likewise, the terms "previous knowledge", "discuss" and "read" are used in ways that appear awkward. Thus, the teacher's recourse to intra-sentential code-switching does not seem to be in pursuit of any specific purpose.

## Excerpt 10

<b>Teacher</b>	<p>اب بتائیں ancient people کیا کہتے تھے کہ جو sun ہے وہ earth کے گرد move کرتا ہے یا earth جو ہے sun کے گرد کرتی ہے۔</p>
<b>Student</b>	<p>Sir جی وہ کہتے تھے کہ sun move earth کے گرد کرتا ہے</p>
<b>Teacher</b>	<p>اس بچے کا answer یہ ہے سن لیں سب بچے پھر بھی آپ پوچھیں گے یہ کہتا ہے کہ ancient people یہ کہتے تھے۔ اونے بیٹا ادھر دیکھو اونے اب ادھر میری طرف دھیان رکھیں پھر سمجھ آئے گی پڑھ کے تو آئے نہیں گھر سے۔ وہ یہ کہہ رہے ہیں کہ sun جو ہے earth کے گرد around یعنی move کرتا ہے اس بچے نے یہ کہا ہے۔ بچے نے یہ مجھے answer دیا ہے کہ آج کے جو scientist ہیں ان کا یہ view ہے کہ earth جو ہے وہ sun کے گرد move کرتی ہے۔ اب دونوں view سامنے آگئے ہیں۔ کئی بچوں نے wrong answer دیئے ہیں مگر نے صحیح دیئے ہیں۔ جنہوں نے wrong دیئے ہیں وہ گھر سے پڑھ کر ہی نہیں آئے۔ انہوں نے previous knowledge کو discuss ہی نہیں کیا deal ہی نہیں کیا۔ پڑھا ہی نہیں ہے بس ایسے ہی home work لکھ آئے ہیں وراس کو read ہی نہیں کیا۔</p>

One manifestation of quality teaching is its ability to meet the Student Learning Outcomes (SLOs) stated in the National Curriculum Framework (2006). The SLOs typically require a great deal of communication from students. For instance in the case of a unit on movements of earth, the SLOs at Grade 4 level have been provided in Table 4.1

**Table 4.1 Movement of the Earth**

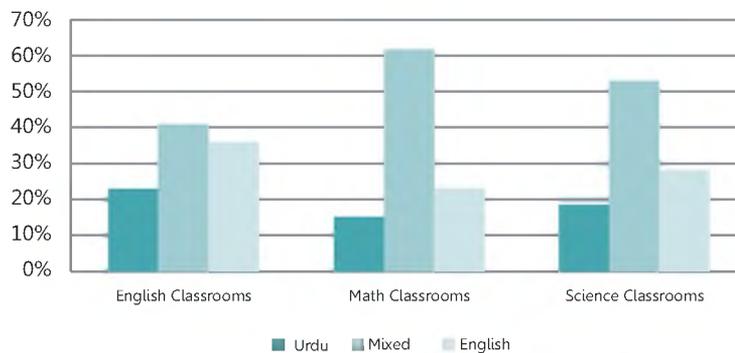
Earth	Describe the shape of Earth.
Earth's Spin Day and Night	Relate the Earth's spin with the occurrence of day and night.
Revolution	Define the term revolution. Identify that the distance between the Earth and the sun effects the time Earth takes to revolve around the sun.
Seasons	Explain that the Earth is tilted on its axis and this tilt causes seasons.

The verbs relating to student learning in these SLOs are describe, relate, define, identify, and explain, whereas, the excerpts above suggest a teacher-centered instructional practice with limited opportunities for students to make their learning visible. This is the case regardless of the language in use. However the requirement to use English is apparently perceived by teachers as a serious issue to be addressed, pushing into the background the problems central to their instructional practices.

### Teacher Talk Summary

In summary, the use of English is relatively greater in English classrooms but still only 36%, as compared to 23% in Math and 28% in Science classrooms (refer to Figure 4.10). Mixed utterances are about 41% in English, whereas there are about 62% in Math and 53% in Science. Urdu-only utterances are 15% in Math and 19% in Science in comparison to 23% in English.

**Figure 4.10: Teacher Language Use by Subject**



Urdu was pre-dominantly being used as a host language for all the communication taking place in the classrooms in all the three subjects. In English classrooms especially, this is likely to compromise the learning of English as frequent use of Urdu detracts from a focus on the target language i.e. English.

Teacher talk was mostly restricted to textbook reading [13 % in Math, 46% in English, and 61% in Science] and behavioral commands [23% in Math, 25% in English and 14% in Science] (refer to Figure 4.11 for details). Questions and explanations constituted less than a third of the talk. The questions were mostly closed-ended and the explanations were short and usually followed by a prompt such

as “Have you understood?” Such prompts were usually met by “Yes miss” type of responses from the students. Such communication did not furnish any evidence about the actual understanding of the students, nor did it appear to encourage them to express their understanding.

In English lessons, textbook reading was seldom accompanied

by any discussion that would elicit meaningful responses from the students and enhance their ability in English. In Math, teachers used simple instructions by way of inserting Mathematical terminology in Urdu sentences to explain Mathematical operations without attempting to explain difficult concepts. In Science, teachers did try to explain the textbook passages after reading them but this was more in a form of translation without any meaningful discussion.

Teachers frequently switched back and forth between Urdu and English in all the three subjects. There is more inter-sentential code-switching in the English lessons and greater intra-sentential code-switching in the Math and Science classrooms. Given that in this study inter-sentential code-switching appeared mostly in instances of textbook reading, the greater proportion of this activity in English classrooms may explain this trend.

They also attempted to use specialized vocabulary i.e. certain subject specific terms inserted in Urdu sentences. However, the use of English words in Urdu syntax does not appear to be strategic or purposive. In fact when teachers code-switch, they are not necessarily using the most appropriate English words, within Urdu syntax either.

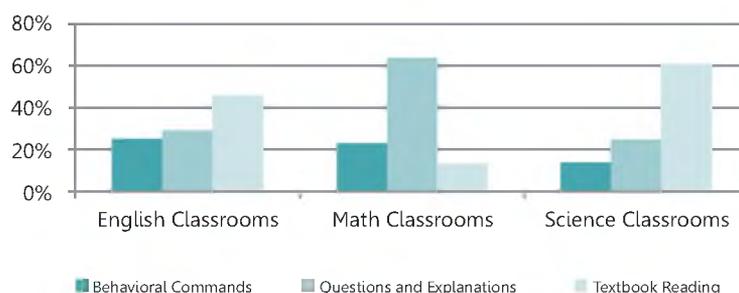
The competence of teachers in English came across as a major issue. Even when some teachers were able to explain grammatical structures in the English lessons, they remained reluctant to communicate in English. In the case of Science and Math, teachers' subject knowledge deficit combined with their lack of facility with the Mol to compromise the quality of teaching.

### Student Talk in English Classrooms

To further understand the use of language in the classrooms where there was evidence of considerable communication from the student, we reviewed the student responses in detail to understand the ways in which students put various languages to use in their expressions.

Generally, the communication of students with respect to teachers was far more limited in all 42 English classrooms. Student communication mostly constituted a very small percentage of classroom talk. An enumeration of English words used by the students shows that in over 75% of the classrooms, students spoke about 150 English words out of the total 200 words on average. In some

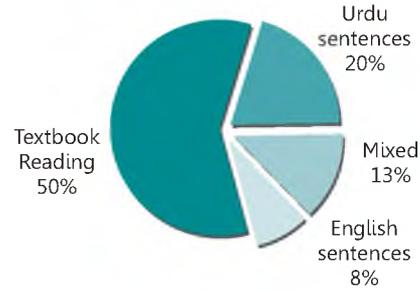
Figure 4.11: Teacher Talk Types in English across Subjects



classrooms student had spoken more than 850 English words as well.

To understand the purpose of student communication, we reviewed the student utterances by language (refer to Figure 4.12). We found that 59% of the total student communication was in the form of English sentences from textbooks. Other full sentences/utterances spoken in Urdu were about 20% with about 8% in English. There was 13% code-switching which is a mix of Urdu and English sentences.

Figure 4.12: Student Language Use in English Classrooms



There was no evidence of meaningful conversation, for instance, using "appropriate expressions to express regret," as stated in the SLOs for Grade 4. Students usually give limited one word responses as can be seen the Excerpt 11.

### Excerpt 11

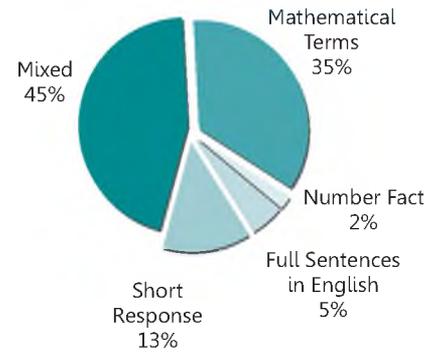
Teacher	Clock کیا ہے؟
Student	مس clock ایک گھڑی ہے جس میں ہم time دیکھتے ہیں۔
Teacher	Yes ہم کہہ سکتے ہیں کہ Clock ایک ایسی چیز ہے جو ہمیں کیا بتاتی ہے؟
Student	Time
Teacher	Time اس کے لیے ہم ایک اور word بھی استعمال کرتے ہیں کوئی بچہ مجھے بتائے گا؟ دیے تو یہ watch ہی ہے ٹھیک ہے اس کو ہم watch بھی کہتے ہیں نا؟
Student	The watch

### Student Talk in Math Classrooms

In order to understand the ways in which students were using English and other languages in their talk, we counted students' use of Mathematical expressions. Since students frequently used English Mathematical terms as single-word responses to teachers' prompts, we counted them separately and also looked at the type of interactions in which single word responses were used. Apart from Mathematical terms as single utterances, the remaining students' talk largely consisted of mixed and less frequent English utterances. From these we excluded and separately counted responses to behavioral commands.

The analysis of language in use, as given in Figure 4.13 show that approximately 13% of all utterance in Math classrooms consisted of short responses. Students typically uttered yes/no—mostly in chorus—when responding to an instruction by the teacher or suggestive phrases such as, “Have you understood?” Students seldom uttered a full sentence in English, i.e. only 5% of all the utterances, and that too usually when asked to read or something from the textbook. Taken together, Mathematical terms in English constituted approximately 80% of all student utterances [45% in Mixed language and 35% English responses].

**Figure 4.13:**  
**Student Language Use in Maths Classrooms**



The Mixed language utterances typically involved substitution of Urdu by English terms in Urdu sentences. The Mixed sentences used by the students are not well formed.

Some examples of such uses from the data are given in Excerpts 12-14. For example in Excerpt 14, most mixed sentences during the observed lessons are spoken without due attention to the rules of sentence formation.

#### Excerpt 12

<b>Student</b>	ٹیچر multiply کروں
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#### Excerpt 13

<b>Student</b>	اوپر والا ٹیچر acute angle ہے
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#### Excerpt 14

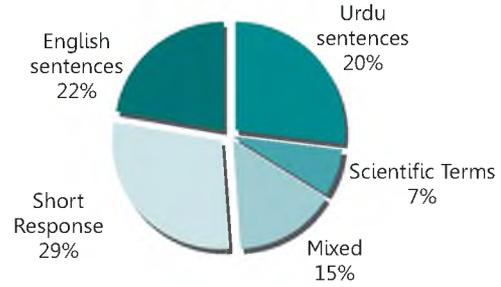
<b>Student</b>	Proper fractions، denominator اور number چھوٹا اور
----------------	--

With short responses to closed-ended questions dominating student talk, it is evident that students are not using English as a vehicle of meaningful communication. Students must become proficient in the use of English before they can use it to support their learning in Math. However, we cannot expect this to happen spontaneously.

## Student Talk in Science Classrooms

The use of English language in Science is largely similar to Math. English is mainly read from textbooks, used in small sentences, and subject specific terminology is used within an Urdu syntax. The number of full sentences uttered in English by students in the case of Science was 22% which is much larger as compared to 5% in Math (refer to Figure 4.14). This was primarily because of more textbook reading in Science. Relative to Math lessons, the use of Urdu as the host language with English words embedded in it was less frequent in Science. Compared with Math (45%) the use of Mixed language by students in Science lessons was counted at 15% of all utterances.

Figure 4.14:  
Student Language Use in Science Classrooms



An examination of the transcripts reveals that students are asked to spend more time reading from the texts thus increasing the percentage of English utterances. Since explanations are more likely to occur in Mixed language, a smaller number of Mixed utterances also mean fewer explanations by students. Some examples of the use of Mixed utterances in Science lessons are given in Excerpts 15 - 18.

### Excerpt 15

Student	جب seven years کی عمر ہو جاتی ہے تب milk teeth گرنے شروع ہو جاتے ہیں permanent teeth آجاتے ہیں۔
---------	---

Since reading from the book constituted a large chunk of utterances in Science classrooms, students were observed as volunteering to read from the book in short Mixed sentences as illustrated in Excerpt 16.

### Excerpt 16

Student	کروں ریڈنگ ٹیچر میں
---------	---------------------

The data also reveals a predominance of single-word responses such as yes/no and *names of objects*—56% of total student utterances. Some illustrative examples are given in Excerpts 17 and 18.

### Excerpt 17

Teacher	جو move کرتی ہیں وہ کیا ہوتی ہیں وہ living things ہوتی ہیں non-living things ہوتی ہیں تو آپ سب کیا ہیں۔
Students [In chorus]	Living

## Excerpt 18

Teacher	ذرا ایک ایک کر کے بتاؤ
Students	Eyes, nose, ear, brain, teeth, heart...

As in the case of Math, there is little evidence of the use of English to support meaningful communication in Science. As described in the teacher talk science section, several SLOs require students to express themselves fluently. We found no evidence that those requirements were met. Given the current levels of poor grasp of English language, it is unlikely the curricular objectives can be met by using English as Mol in Science classrooms.

### Student Talk Summary

Textbook reading is the highest in English classrooms at 59% with 22% in Science. Mixed use of language was 13% in English and 15% in Science with the highest in Math at 45% as there is hardly any textbook reading in Math (given that there is no content in form of complete paragraphs in the Math textbook). There is also a higher incidence of use of Mathematical terms by the students in Math, which is 35% of the student talk in all 42 classrooms. Whereas in Science, we observed that other than the textbook reading, 56% of the communication by students was in form of short responses or names/functions of things.

The findings suggest that the opportunities for meaningful interactions conducive to learning of Math, Science and English were fairly restricted. There is extensive use of Urdu in the English classroom. This makes the learning of English by the students less likely. As the data from the Science and Math classrooms amply demonstrates, students tend to employ English sparingly and do so almost exclusively by way of short responses or general names of functions or things other than when they are asked to read from the textbook. They almost invariably take recourse to Urdu if the matter does not involve a general response or the textbook. There was little evidence of the use of English to communicate in full sentences—except when reading from the textbooks or choral repetition after teachers.

Our observations hardly recorded any instances of children asking questions. The only instances of sentences ending with question marks involved children asking teachers' permission to do something. Likewise, children seldom explained any concept. Learning was made visible only through short single or two word responses to teacher prompts.

### Discussion of Teacher Talk & Student Talk Findings

This section provides a discussion of the findings of teacher and student talk. First it discusses the English-specific findings, then the Math and Science findings and finally those issues common to all three subjects.

### **Over-use of Urdu in English classrooms**

The implications of language use in a multilingual classroom differ for the subjects under discussion. In Math and Science, the primary purpose is the teaching of the subject and in theory any combination of languages achieving that objective should be acceptable. In the case of English, however the situation is somewhat different for here the medium and the subject converge. If the medium itself is the subject, it is reasonable to assume that it would dominate the lesson. And, if very little English is being used in the English lesson it would suggest that a necessary condition for the teaching and learning of language is not being met, if so other inputs into the enterprise may not matter that much. Atkinson (1993, p.2) integrates communicative methodology with selective and limited use of L1 and noted, "L1 can be a valuable resource if it is used at appropriate times and in appropriate ways". Also, L1 can be used to relax students, but "overuse of L1" can also challenge the objective of the class (Cole ,1998). Clearly, there is a problem when the teacher and the learners, "resort to their mother tongue to such an extent that the matrix language is the mother tongue." (Moodley, 2007, p.709). In the English observed lessons one can also see this "overuse" of L1 where the teacher and the learners having once switched to Urdu continue to speak in Urdu and the interaction is sustained in Urdu, as such the learners "tune out" (Moodley, 2007, p.719) and are not able to learn the target language.

### **Inadequate emphasis on communication skills in English**

Listening and speaking are the two central communication skills deemed to provide the most effective basis for learning a language. As the classroom observation makes it clear, these are precisely the skills that are ignored in the English classroom, as students are neither being supported to listen with comprehension or to express themselves even by way of seeking clarification. Instead the emphasis, as we have seen, is on reading.

The classroom reality of limited student talk has obvious implications for some key SLOs in English as emphasized in the lesson plans put together by the Directorate of Staff Development (DSD) such as: "Recognize function of simple WH (what, when, why, etc) forms used in questions/respond to, and ask more WH questions,"<sup>16</sup> or "use appropriate expressions in conversation to express regret/express likes and dislikes."<sup>17</sup> Given the brief, routine, answers that students give, there is no evidence of a meaningful question-answer dynamic being established in any of the numerous sessions that were observed and such outcomes are not likely to be achieved in the given circumstances.

### **Inadequate explanations of concepts in Math and Science**

Sound explanations imply reaching out to the children's world and relating the concepts being taught with their lived experiences. This is essentially what child-centered instruction ought to be all about. For the last two decades reforms in education have aimed to turn teaching away from its traditional practices toward more child-centered, activity-based, and inquiry oriented practices (especially in Science). These activities have been advocated to be the building blocks on which

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<sup>16</sup> Student Learning Outcome taken from Lesson Plan 2 from the National Curriculum Framework (2006) for grade 4.

<sup>17</sup> Student Learning Outcome taken from Lesson Plan 5 from the National Curriculum Framework (2006) for grade 4.

children develop a deep understanding. But children live their lives through immersion in their first or proximate language. Therefore, it is difficult to tap into their lived experiences in second language. In other contexts, where teachers are competent in both English and local languages, they introduce topics and concepts in English, but explain them partly in children's first language. Referred to as inter-sentential code-switching, this switching between languages enables the teachers to make use of children's first language as a resource to advance understanding. In observed classrooms, the code-switching was not purposive.

### **Incorrect use of specialized English vocabulary in Math and Science**

Teachers are using English terms in both Math and Science, and students are also repeating them. This alone does not imply a change in the language of learning and teaching, which effectively continues to be Urdu. As discussed earlier, specialized vocabulary is introduced through intra-sentential code-switching. Yet, the instances of incorrect usage abound. Frequently terms that are used as verbs in English are used as nouns when inserted within an Urdu matrix. For example, teachers ask students to "plus [or minus]" numbers instead of asking them to "add [or subtract] them". So while students are learning the names of concepts and operations in English, they are also frequently learning to use these terms in awkward and incorrect ways.

### **Limited meaningful communication**

In English, the limited oral interaction and communication between the teacher and students where a major objective is the learning of language is particularly significant. In all the lessons observed, across the three subjects we hardly have any examples of students going beyond one or two-word utterances in English, unless they are reading from the textbook or repeating after the teacher. This may also have to do with the ethos of the conventional classroom that does not encourage students to express themselves. But clearly, they are even less likely to do so in a language they are not fluent in. Meanwhile literature on the subject strongly recommends encouraging communication skills in L2 as the first important step in the transition process (Benson, 2005). Once students have basic literacy skills in the L1 and communicative skills in the L2, they can begin reading and writing in the L2, efficiently transferring the literacy skills they have acquired in the familiar language. The pedagogical principles behind this positive transfer of skills are according to Cummins' (1991) interdependence theory and the concept of common underlying proficiency, the knowledge of language, literacy and concepts learned in the L1 can be accessed and used in the second language once oral L2 skills are developed.

In Math and Science, we found very little evidence of teachers communication aimed at engaging students or encouraging students to express their conceptual understanding. Learning, however, must involve, "building up of cognitive connections." (Haylock and Cockburn, 2008, p.9). With reference to Math and Science, such cognitive connections are developed when children understand concepts and link concepts with each other. For example, the concept of division is best understood in its relationship with the concept of repeated subtraction as inverse of multiplication. Such linkages are best developed when children are involved in appropriate instructional activities,

encouraged to respond to appropriate questions, and express themselves. The specific communicative acts involve understanding and solving problems, communicating the solutions to teachers and fellow students, and defending their solutions when asked to do so. These activities require the ability to communicate. As noted above, the evidence from this study suggests that students are not involved in meaningful communication that can support high quality learning experiences.

### **Recourse to “safe talk”**

Aside from textbook reading, interaction in the classroom is primarily characterized by what is often referred to as safe-talk. Essentially, this constitutes routine prompts and directives by the teacher and routine, mostly confirmative, responses by the students: 'Open your books', 'sit down', 'stand up', 'read' and the student response is mostly variations of 'yes.' Originally introduced by Chick (1996), the term safe talk defined by Heller and Martin- Jones (2001, p. 13) as “a set of interactions between teachers and students in which both preserve their dignity by hiding the fact that no learning is taking place”.

Safe talk does not indicate quality teaching and learning. Language needs to be learnt before it can be used as a medium of meaningful communication. Clearly, a curtailed capacity on the part of both teachers and students to communicate with each other does not support quality teaching and learning. Under these circumstances, teachers primarily use English to read from textbooks, to pass simple instructions to children, and do not use it to pose problems to children, help them solve those problems, and express their solutions. Thus making English the MOI in circumstances where both teachers and students are not already prepared to communicate in English runs the risk of further undermining the quality of education.

### **Underlying shortcomings in teaching practice**

It can certainly be argued that traditional practices of instruction, which precede the recent shift in the language in education policy, did not encourage children to ask questions either, or provide meaningful responses, and express themselves clearly. Such expressions, which are central to quality learning, require a certain degree of competence in the language of learning and teaching. So, an emphasis on these, in a language that children are more comfortable with, would be more likely to improve the quality of learning. Conversely, a shift to English appears to put such engagement on the part of the children at even greater remove as utterances in English indicate a tendency to resort to safe talk, in a bid to comply with expectations rather than to communicate. Thus, if the policy objective is to improve the quality of education in Math, Science and English, then a shift in MOI may actually work against such an objective. The findings of this study suggest that switching to English has certainly not helped address this major shortcoming in the existing teaching practices.

## Perceptions of Key Stakeholders

In order to gain insight into the thinking of key stakeholders with regards to language in education policy and practice in the classroom, the study reached out to 21 head teachers, 38 teachers and 152 parents. The same teachers whose lessons were observed by the research team were interviewed.

### Perceptions of Head Teachers

Head teachers had mixed perceptions of the benefits of the language policy for students. For a majority of head teachers the beneficiaries are mostly children of 'middle class' and 'educated parents'. Over 50% of head teachers interviewed suggested that children coming from better-off families were at an advantage with this policy. Some head teachers also felt that 'intelligent' children were also benefitting from this policy. Understandably, children, whether of middle class or educated parents or naturally gifted, are few and far between. So a majority of children, according to the head teachers, were not benefitting from the policy. They are largely the ones coming from impoverished families. As one head teacher put it:

"...students coming from poor and almost illiterate background matters a lot. They have no other exposure or help other than school to English language...and in schools old teachers can't do much...new teachers seem to be working hard. My experience is that student learning has slowed down."

Those who favored the policy put forth several reasons ranging from their own experience of starting English late during their schooling to the status of English as an international language.

"I think it's a good policy. We used to learn English at Grade 6 now our students are learning English from Grade 1...this will sure improve their language, IQ and day to day vocabulary till they reach 6th grade."

"I totally favor this policy because of its international acceptance and scope in higher education ...all successful fields require English..."

"Even Chinese are learning English."

"We all prefer to educate our children in private schools...with this policy public schools will be able to compete with the private schools and both will come to equal level."

The opinions of those who did not support the policy appeared to be shaped by the issues with its implementation and a concern that students were put at a disadvantage due to this policy. As one head teacher put it:

*Majority of teachers and head teachers do not endorse this policy and those that do emphasize the need for a proper enabling environment.*

“This policy has more negative impacts than positive...students are not getting anything...we are pushing them towards cramming not comprehension.”

Several head teachers drew attention toward the lack of preparation of teachers to teach in English. Some of what they said has been provided below:

“Teachers are not that educated to teach in English, their own English language skills are poor.”

“We need the right teachers for this job...if teachers are good then this is successful otherwise it is very difficult.”

“Both teachers and students are disturbed. It was implemented without proper planning.”

### **Perceptions of Teachers**

Teachers are impacted most by changes in the policy. They are expected to respond to new requirements by making changes in their instruction. It is important, therefore, to know their perceptions, their view of their readiness to respond to new language policy, and their assessment of its impact on their students.

More than half of the teachers<sup>18</sup> (53%) interviewed were not supportive of the policy. One of the reasons provided for favoring Urdu or first language as a medium of instruction included student's rural background, which according to teachers inhibited their ability to learn English without support from home. As one teacher said:

“No, I will not favor this policy of enforcement to all, things here in urban areas are different and in rural areas are quite different.”

Teachers from Punjab's Southern rural districts did not think their students could benefit from this policy. As one of them put it:

“We are Saraiki, we understand first in Saraiki, then Urdu and in the end in English, and in all this we move nowhere.”

About a third of teachers (37%) were in favor of introducing English as Mol. Some of these teachers explained their preference in terms of the status of English as a global language as well as the potential that English language skills brought as a socio-economic lever. One teacher from a Southern district said, “English is a basic need in the world now. We have to go along with it.” Another from a Central district said, “We have to follow international needs and trends.”

About 10% of the teachers had mixed views. Though some of those favored English as Mol but they also talked about the constraints. Teachers find textbooks difficult. One teacher from a southern district said, “Textbooks should be in simple English.” Another from a central district said, “I am in

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<sup>18</sup> Out of 38 teachers interviewed, 63% had less than 10 years of experience, 24% had about 10 to 20 years of experience and the remaining with experience of 25 years and more. About 82% of these teachers had a BA or a MA degree, while 66% teachers had professional qualifications in the form of B.Ed. or an M.Ed.

favor of this policy but Science textbooks are too difficult, books should be according to students level.”

Not all teachers have had access to training to help them respond to the policy. 16 teachers (42%) reported that they never received any training. But there were others who did and reported that they had benefitted. At least 5 teachers said their English speaking skills were enhanced after participation in the training organized by the DSD. Whereas, 7 teachers said that the training was not quite useful in helping them meet the challenges they faced in classrooms. As one teacher put it:

“I got 15 days training on Science, Math and English in Okara...After English medium policy I have heard that a 15 day training was conducted. Trainings are useful for those who have studied in English medium from beginning...I did not find it much useful. Also, the trainings were also conducted mostly in Urdu.”

### **Perceptions of Parents**

We asked 152 parents whether they agreed or not with the policy to use English as the MoI. Over 71% agreed with this policy (57% strongly agreed and 14% agreed), whereas, 22% of the parents did not approve of the policy. Those who approved of the policy appeared cognizant of the role of English in higher education and in the job market. Their opinions on the use of English as MoI were quite nuanced; these are illustrated by quotes given below:

“It is useful, and it should continue because English is very important for future career and development.”

“Children can help us in daily routine of life like bringing medicines because they can remember names in English. Our children correct our words if spoken incorrectly.”

“An English educated child is an advantage to the whole family.”

“It will help them in higher grades and for jobs abroad.”

Those who disapproved of the policy saw it as burdensome for them and their children. They also did not feel confident in the ability of the teachers to teach with English as MoI. As one of them put it:

“Teachers in government English medium schools cannot teach properly in English and we have to adopt tuition. In a way it has not proved very helpful in terms of expenditure on children's education. There should be some check on teachers so that they teach properly.”

Parents also thought that some subjects were more easily taught in English than others. As one of them put it:

“Social Studies is difficult to read, children can't understand. Math should remain in English that is easy. Science should remain in Urdu because for that we have to send children to tuition. They don't understand but just cram. The children who have done some grades in Urdu should not be forced to study English; it is not possible for them.”

Many of them, especially in the rural environments, were also aware of their limitations in terms of helping children do well in school:

“We are not educated. We don't know English, so we can't help our children in their studies. We can't even judge what are they studying...and performing. When it was in Urdu, at least we knew what the contents of the book were and we could ask.... 'Do you know this and that?' Now we are totally helpless and at the mercy of school teachers. We can't afford tuitions. Children often hesitate to go to school because of fear of teachers and English. They can't do homework and lessons.”

### Perception Findings Summary & Discussion

As one might expect, a very high percentage of parents, i.e. 70%, approve of the new government policy, equating the greater emphasis on English with increased prospects for their children to learn English, a skill they understandably value highly. However, a majority of teachers and head teachers, around 70% found the policy of teaching Math and Science in English from Grade 1 problematic. Clearly, at 30%, those favoring the policy of English also constitute a substantial number. However, a large percentage within this category add a qualifier for the success of the policy: the government must put in place an enabling setting to ensure the success of this policy. This puts a question mark against their approval and which may be more indicative of their concern at the implications of dissenting from official policy as opposed to genuine endorsement of the policy within a pedagogical context.

So while parents conflate the policy of using English as a MoI from early on in school with improved prospects for the learning of English, for which we have found little evidence in the study, a majority of teachers and headteachers more familiar with the actual situation in the classroom do not endorse the policy and many of those who do add a virtually nullifying caveat to their endorsement; to say that a proper enabling environment must be provided for successful implementation of the policy of English as MoI, is also to suggest that one does not exist right now in classrooms.

*We strongly support a language policy that ensures a balance between the child's cognitive development and proficiency in English and Urdu.*

Quality teaching and learning requires a transformation of teaching practices. It must involve reaching out to children and making use of their everyday experiences to support learning. Accordingly, efforts for improving the quality of education in the last two decades have privileged the notions of child-centred and activity-based teaching practices. Introducing and implementing child friendly teaching practices, however, will require greater communication with children.

The evidence collected during this study, however, suggests that using English may not support change and improved quality of teaching and learning in our classrooms in the absence of enabling conditions. Among other things, such enabling conditions require teachers to be competent in English and be able to teach it as a second language to children who cannot readily communicate in English. The teachers must be able to make full use of the linguistic resources that children bring with them to the classrooms.

Clearly, a curtailed capacity on the part of both teachers and students to communicate with each other does not support quality teaching and learning. Thus making English the Mol in circumstances where both teachers and students are not adequately prepared to communicate in English, runs the risk of further undermining the quality of education.

Our assumption is that the government does seek to improve students' learning levels in English as well as in other subjects. This is quite apart from any immediate government considerations underlying the policy of introducing English at an early stage. Among these could be competing with private sector claims of quality linked to the use of English as the medium of education particularly on the part of Low Fee Private (LFP) schools. Of course, the latter's claim with respect to quality teaching and learning in English may also be questionable to some degree.<sup>19</sup> Nevertheless, improving competence in English in public sector schools should, justifiably, remain a primary goal.

Based on existing research and global experience some tentative recommendations have been provided below.

### **Teach English as a subject with a focus on communication and not as Mol at the primary level**

Contrary to the current practice of teaching English as an academic subject, it should initially be taught as a means of oral communication. "The

<sup>19</sup> "62% of the private school teachers and 56% of government school teachers registered scores in the lowest possible bands in Aptis test". (Can English Medium Education work in Pakistan? Lessons from Punjab, Punjab Education and English Language Initiative – PEELI Report, 2013)

communicative method emphasizes the ability to communicate the meaning of the message rather than correct grammar and 'using' the language as much as 'learning' the language. The method also prioritises active student interaction and the learners' personal experiences and situations.<sup>20</sup> If the decision is to teach English from the very beginning, then it needs to be taught at the primary level as a subject from Grade 1, or later, depending on the availability of competent teachers and not as the MoI.

Based on evidence from research on language and learning (Benson, 2005) it is advisable to use the first language as the MoI in the first three grades but since this does not appear feasible in the current environment in Punjab, perhaps the MoI can be Urdu with the first language and English taught as subjects. There is considerable discussion in the literature on the need to know the first language well, given the implications for cognitive development, in order to learn the second language quickly. In Punjab whether we accord this status to Urdu or Punjabi (or another language) may vary with urban to rural and regional settings, the point is that teaching the first language well facilitates the learning of the second. The government should commission more research on how Urdu (or any other first language) is to be properly taught since student attainment in Urdu, not just in English, is low (PEAS, 2011).

### **Ensure that teachers are competent in the teaching of English as a second or a foreign language**

If the objective is for students to learn functional English It would be critical to have appropriately qualified teachers. They could upgrade their competence in English through Language Improvement Programs. Here it is useful to keep in mind that the Teaching of English as a Second Language (TESOL) is a specialized field. And teachers of English need to be qualified in this particular area if they are to do the requisite job. Such training could be made a part of the trainings offered, for instance, under DSD's Continuous Professional Development program.

### **Align the curriculum, textbooks and examinations framework to reflect the focus on teaching of English as a second language**

Appropriate curriculum and high quality textbooks will help children learn the language. Review the curriculum, textbooks and examinations with the objective of teaching English as a second language. Commission the development of appropriate materials at the primary level to this end.

### **Review the policy of using English as an MoI for Math and Science**

It must be kept in mind that better English teaching alone will not fix the problem of there not being enough competent Science or Math teachers or the myriad other problems such as poor quality textbooks and assessment systems. There is considerable merit in the

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<sup>20</sup> <http://www.tjtaylor.net/English/teaching-method-communicative-clt#bottom>).

argument that at advanced levels of education in these subjects, proficiency in English can help in better understanding of complex technical and conceptual subject matter. However, at the earlier stages of schooling what clearly matters more is that the child be helped to gain a basic understanding of a new subject and this is best done in the language that he or she is most comfortable with, taught by a teacher who knows Math and Science and may or may not have developed communication skills in English.

### **Commission further research to determine an appropriate language policy for schooling**

It would be useful to engage in deliberations with experts to determine the most appropriate developmental stage at which to begin using English as MoI. It is encouraging to note that the recently launched Punjab School Education Sector Plan also points to the need for a policy that ensures a balance between the child's cognitive development on the one hand and proficiency in English and Urdu on the other.

If language policy is to be reviewed, not least with a view to ensure that children actually do acquire proficiency in English, the evidence from this and other contexts will need to be widely shared with stakeholders in order to encourage a reflection on deeply held beliefs with respect to language and learning. This is essential if we are not to continue to undermine the prospects of genuine learning for millions of children in Punjab as well as in Pakistan as a whole.

## Key Points to Take Away

### What we know:

- Learning English is of great importance for all children in Pakistan.
- Teaching functional English to support learning in all subjects is a priority.
- If children learn the first language well in the initial stage of schooling, learning the second language becomes easier. So, it is not a zero-sum game between the two or more languages.

### What this study found:

- An absence of qualified and trained teachers even at the primary level.
- A lack of meaningful interaction in English between the teacher and students in the classroom.
- Adding English to the mix compounds pre-existing quality issues such as gaps in content knowledge and poor teaching practice.
- Most parents endorse government policy believing that their children will learn English, if they start early.
- Majority of teachers and head teachers do not endorse this policy and those that do emphasize a proper enabling environment for English MoI, which also suggests that it does not exist right now.

### What we recommend:

- English should be taught as a subject, with a focus on verbal communication, at the primary level.
- English can be adopted as MoI at the elementary level, depending on the availability of teachers.
- Teaching English is a task for teachers who are qualified and trained to teach English as a second language.

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What is the language in which we should educate our children?

Since independence, this question has generated heated debate and for good reason. English has been the language of teaching and learning in the elite schools for some time now. Others have followed suit. Understandably, there is great demand for English also because it has become a global lingua franca.

The Punjab government, mindful of this sentiment, decided to gradually introduce English as a medium of instruction in its schools from 2009. The policy has found favor with most parents, if not with most teachers. There is no debate on whether children should learn English. But, there is room for much deliberation when it comes to determining how this is best done. This report attempts to contribute to the efforts to engage policy-makers, parents and teachers in a serious deliberation on this complex issue.

The study presents the findings and analysis from classroom observations spanning 126 lessons of Math, Science and English across six districts of Punjab in 2013. The findings are a wake-up call for all those who want to see improved learning levels in English as well as in other subjects taught in the language. The recommendations draw from the findings as well as literature on global experience with language and learning.



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