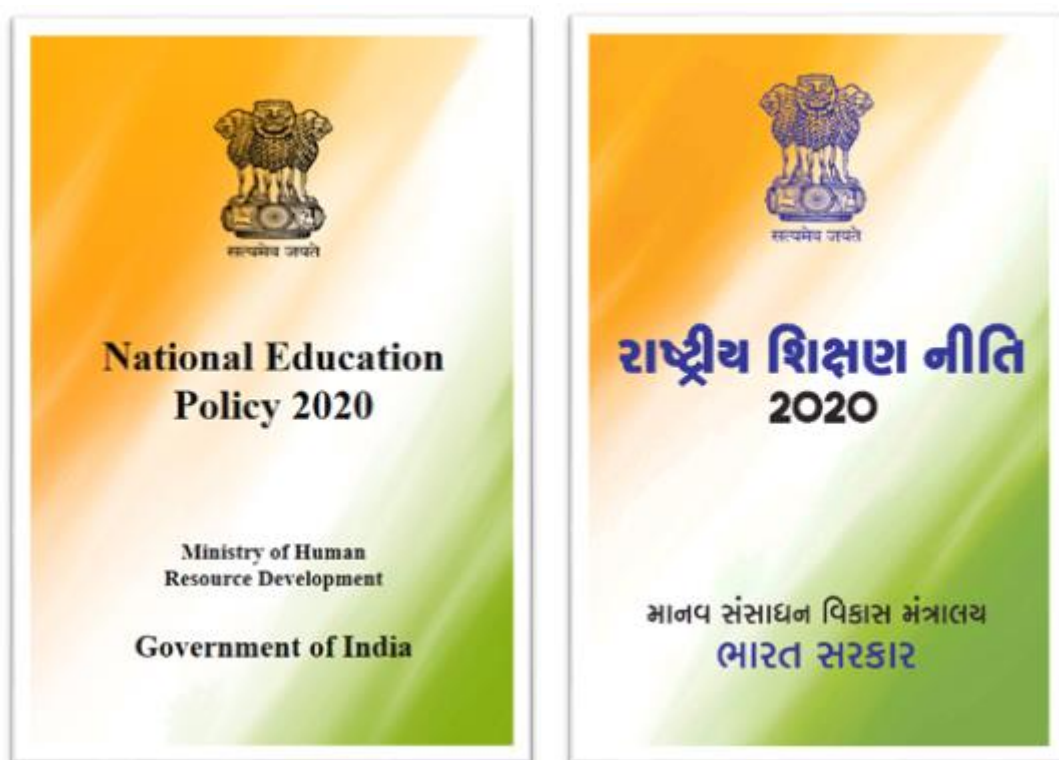




1. Background

1.1 Support in new education policy

The new National Education Policy 2020 has been announced which we are all aware of. Para 4.12 and 4.14 recommend bilingual education. Here they are.



4.12 As research clearly shows that children pick up languages extremely quickly between the ages of 2 and 8 and that multilingualism has great cognitive benefits to young students. Children will be exposed to different languages early (but with a particular emphasis on the mother tongue), starting from the Foundational Stage onwards. All languages will be taught in an enjoyable and interactive style, with plenty of interactive conversation, and with early reading and subsequently writing in the mother tongue in the early years, and with skills developed for reading and writing in other languages in Grade 3 and beyond.

4.14. All efforts will be made in preparing high-quality bilingual textbooks and teaching-learning materials for science and mathematics, so that students are enabled to think and speak about the two subjects both in their home language/mother tongue and in English.

Inspired by the new National Education Policy 2020, it has been decided to introduce a methodology following this principle in the "Mission School of Excellence" project.

1.2 successful pilot project and recommendation by expert committee

Bilingual medium is not at all a new thing for Gujarat. Since the year 2016, 29 schools in Surat city have been using 'Bilingual medium' with the approval of the state government using the term 'Global Gujarati Medium' for it. According to the third party evaluation, conducted by the District Education Officer, this method is found to be successful and effective. After this initial favourable review, the state government appointed a committee of academics and experts in the year 2019 to consider whether this system can be implemented at a larger scale state-wide in some form. According to the report submitted by the committee, this method promises to be successful for the students of Gujarat and it is relevant to the demands of the changing global trends. Following multiple representations to the Hon'ble Minister of Education, the Government is keen to introduce this method in its 'Mission School of Excellence' project on an initial basis, and also in private schools. Private schools may also use this bilingual medium as a third alternative to English medium and Gujarati medium. Private schools may implement this bilingual medium on a voluntary basis, with the approval of the Government. Necessary steps are being taken for defining the procedure.

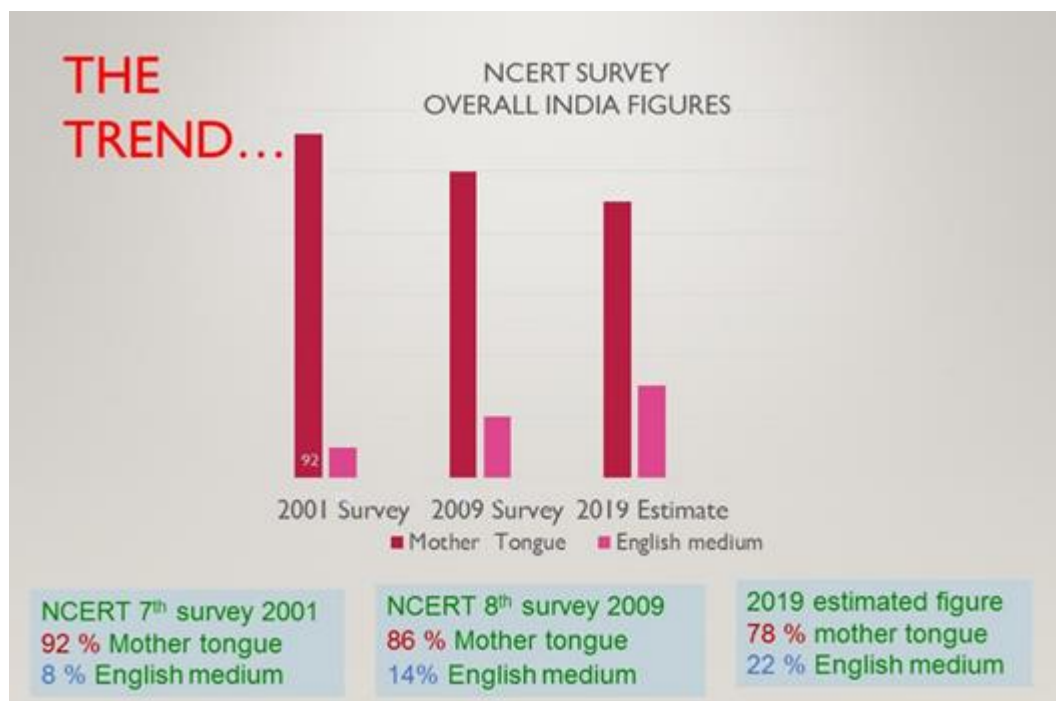
2. Bilingual medium philosophy

The bilingual medium aims at two goals simultaneously

Preserve mother tongue – a step towards nurturing traditions and culture

Attain mastery over a global language – a step towards development

At present, the inclination of parents towards Gujarati medium is decreasing. They feel that Gujarati medium schools are too late and slow in starting English language education. Increasing number of middle class Gujarati Parents are choosing English medium for their children because of fear of falling behind in the current global trends. Most of the time, within the limits of their financial capacity, they end up choosing a very poor or average quality English medium private schools. On the other hand, despite the best efforts of the government, government schools are losing students. According to an NCERT survey, the number of students studying in their mother tongue has decreased from 92% to 78% in the last 20 years.



Educational Psychology would strongly recommend that mother tongue should be a major tool in beginning years of education. At the same time, it is equally important to start English as a second language as soon as possible. There is also an utmost need to improve the quality of English education in our state, especially in primary years. Since children can learn both languages (mother tongue and English) well simultaneously, there is no need to ignore one in order to adopt the other. The essence of a Bilingual medium can be concluded in one sentence, “when ‘Gujarati or English’ is a dilemma, the solution can only be ‘Gujarati plus English’.”



Modern trends and most research work in subjects like mathematics and science happen at global level. To catch up with it, students must know English terminology. And, in further higher studies, maths and science are taught using English terminology. That is why it is desirable and advisable that at school level the child learns both these subjects using a Bilingual medium. This step will enable the student to keep pace with the global pool of knowledge. Doing so will enable students to take advantage of the vast ocean of knowledge and the reference material (especially relevant to maths and science subjects) which is available mainly in the English language only.

Bilingual medium aims at:

1. Improving the quality of English subject education (as second language) from the beginning
2. Teaching mathematics and science through bilingual medium 3rd standard onwards

Apart from these two main provisions, other things remain the same as in the existing Gujarati medium.

From the third to the tenth standard, in subjects of mathematics and science/environment, both mother tongue and English are to be used freely in the classroom conversations.

The bilingual medium can be divided into four phases

Phase 1 - Standard 1 2

Introduction to English through listening-conversation

Introduction to the list of English numerals and terms in the two subjects : mathematics and environment

Phase 2 - Standard 3 4 5

Bilingual books in Mathematics and environment. Teaching will mainly be in Gujarati medium - Gradually beginning to understand these subjects in English also. The rest of the subjects will be taught in Gujarati medium.

Phase 3 - Standard 6,7,8

Bilingual books in Mathematics and Science in Std. 6 and 7. Gradually the increasing use of the English language for these two subjects especially terminology. from Standard 8 only English medium books will be used in Mathematics and Science. The rest of the subjects will be taught in Gujarati medium

Phase 4 - Standard 9, 10

English books on mathematics and science. The rest of the subjects will be taught in Gujarati medium

3. Bilingual method: Method and implementation

The bilingual medium will be implemented in School of Excellence of Gujarat.

This method will be introduced in the first-second standard of the School of Excellence with immediate effect.

If the school is ready, it can implement this method during this year in the third standard also.

This medium will not be implemented midway to children who are currently studying in 4th standard or above. These provisions will apply year by year as new entrants proceed in the upper standards.

3.1 Phase 1 - First and second standard

In the first and second standard, education will be imparted according to the present “Pragya” system using the mother tongue. There will be only two changes.

A. Modification 1

Non-formal teaching of English will be introduced in the order of Listening-Speaking-Reading-Writing (LSRW). In the first and second standard, children will be made to enjoy English listening and speaking with the help of audio-video teaching materials and English labs, Special experts, visiting English teachers will be appointed as per the requirement per district. School language teacher of the current Pragya class will also participate in teaching and implementing. Priority will be given to listening and speaking basic simple English. Exposure to basic reading skills in English can be started informally with games, pictures and study materials. English writing will not be introduced at this level. Using a combination of all these systems, daily one hour will be spared for English education. This topic is elaborated in para 7.

Doing read alouds from story books is one the most effective ways of introducing any language; we should add the usage of story books (bilingual or just English) in this age group; the library in class will additional encourage students to pick up the books themselves and learn from it; bilingual books will help them learn both Gujarati letters which getting familiar with English

B.

At this level, children will be taught mathematics and environment in their mother tongue only. To acquaint them with English terminology while teaching, a glossary (a list of important words as of bilingual terminology) will be provided as teaching aids in both of these subjects.

પર્યાવરણ

ધોરણ-૧

શરીરના અંગો અને તેના કાર્યો.

Parts of the body and their functions.

| ક્રમ | ટર્મિનોલોજી | Terminology |
|------|-------------|-------------|
| (1) | શરીર | body |
| (2) | માથું | head |
| (3) | આંખો | eyes |
| (4) | નાક | nose |
| (5) | કાન | ear |
| (6) | હોઠ | lip |
| (7) | દાંત | teeth |
| (8) | જીભ | tongue |
| (9) | હાથ | hand |
| (10) | પગ | leg |

3.2 Phase 2 - Third to Fifth standard

3.2.1.

From the third standard onwards, English subject reading and writing will be started. New 'English Second Language (Higher) Textbooks' will be available. These new English second language textbooks will be of higher level than the current Gujarati medium books. These textbooks will be a little easier than English first language textbooks. Much of English teaching will still be activity based and interactive. This will be accomplished with the help of audio-video teaching and learning materials, English Labs, Expert special visiting teachers and the current language teacher.

Apart from storybooks, english teaching will include use of flash cards, puppets, toys, describing a picture, arranging pictures in sequence to complete a story, counting things, easy games like conversation between shopkeeper and customer, listing of things (what do we see at beach, at railway station etc. such games will promote imagination, increase vocabulary and give a topic for conversation)

3.2.2.

Mathematics and environment/science and technology books from third standard onwards will be bilingual. At present we have books ready as PDF in such a way that Gujarati is printed on the left side and the same material will be printed in English on the right side. We will soon be preparing ideal bilingual textbooks.



3.2.2. A

In 3rd, 4th and 5th standard, Gujarati language will be used more and English terminology will be introduced at proper juncture. Definitive and affirmative sentences like definitions etc. will be gradually introduced in English. Mother tongue will be used freely to explain the concept. At this level, in these two subjects, use of English will gradually increase.

In 3rd and 4th standards, in assessments or evaluations in these two subjects (Mathematics and Environment) 20% weightage will be allotted for terminology. Remaining evaluation will be in Gujarati.

In the fifth standard, for these two subjects, again 20% weightage will be allotted for objective questions related to bilingual terminology. Over and above that 20% weightage will be allotted for objective questions in English (one-word answer, fill in blanks match the pairs, etc.). The rest of the descriptive answers will be written in Gujarati.

Subjects other than Mathematics and environment will be taught using Gujarati as medium of instruction.

3.3 phase 3 a Sixth and Seventh standard

When the batches who have joined this project reach upto sixth and seventh standard, Mathematics and science books will again be bilingual. By that time we will have new ideal bilingual text book. The use of English in the classroom will be increased in these two subjects. Gujarati will be used exclusively for reference and explanation of concepts only.

In 6th and 7th standard, in these two subjects, 50% weightage will be allotted for objective questions in English (one-word answer, fill in blanks, match the pairs, etc.). The rest of the descriptive answers will be written in Gujarati.

New 'English Second Language (Higher) Textbooks' will be used to teach English in 6th and 7th standard. Much of English teaching will still be activity based and interactive.

Subjects other than Mathematics and Science will be taught using Gujarati as medium of instruction.

3.4 તાલુકા ૩ બ - 8th standard

When the batches who have joined this project reach upto 8th standard, Mathematics and science books in the eighth standard will be in English only. Gujarati language may be used for understanding and communication in the classroom if required.

New 'English Second Language (Higher) textbooks' will be used to teach English in 8th standard. Much of English teaching will still be activity based and interactive.

Subjects other than Mathematics and Science will be taught using Gujarati as medium of instruction.

3.5 Phase 4 - Ninth and Tenth standard

When the batches who have joined this project reach upto ninth and tenth standard, Mathematics and science books in ninth and tenth standard will be in English only. Gujarati language may be used freely for understanding and communication in the classroom.

New English Second Language (Higher) textbooks will be used to teach English in 9th and tenth standard. Much of English teaching will still be activity based and interactive.

Subjects other than Mathematics and Science will be taught using Gujarati as medium of instruction.

4. Ability and readiness of students

Children of the present generation often see more and more use of English language in the world around them, especially on digital devices. If a bilingual medium is introduced in an interesting manner and by using a phase wise transitional method over the period of seven to eight years, it will not be a burden on students. Children of every socio-economic level have been found to be psychologically capable of adopting this method. In the pilot project, this method received wholehearted positive reviews from students and parents.

6. Ability and readiness of teachers

A lot of help will be provided from the state level, keeping in view possible limitations of the abilities and experience of the present teachers. It is expected that, like students, teachers will gradually develop the ability to speak in English about their subject. For this they will be given necessary training and help. Moreover, as this is a bilingual medium, both the teacher and the student will be able to use Gujarati language freely while learning English.

In the pilot project it was found that teachers were initially apprehensive about their own ability and the student's abilities, but at the end of the experience, teachers felt satisfaction and meaningfulness in being part of a new positive change.

7. Preparation and training from top to bottom

A core team will be formed under Dr. Vinod Rao's guidance at c and c centre. It will consist of experts.

Five areas of training have been defined

- 7.1. Bilingual medium general concept
- 7.2. Teaching English as a subject in bilingual medium
- 7.3. Teaching maths as a subject in bilingual medium
- 7.4. Teaching environment/science as a subject in bilingual medium

7.5. General English proficiency training for all teachers

8. How can private schools sign up?

Private schools of Gujarat can sign up for bilingual medium on following conditions

1. They have to follow the government approved model of bilingual medium.
2. They have to participate in all training modules or manage their own training privately.
3. They have to train their English teachers and recruit new ones if required
4. They have to train their maths and science teachers according to government norms.
5. They have to take permission from the DEO with the following documents.
 - a. Resolution by Trustees, that 'they have no objection and they are willing to start bilingual medium.
 - b. Similar Resolution by parent's association of particular class.
 - c. Similar resolution from teachers involved.

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