Multilingualism aspect of National Education Policy 2020: Implementation challenges in schools and way forward to post National Education Policy

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By

<u>Candidate Name: Pradeep Kumar Misra</u> (Roll No. 4615)

Under the guidance of

Supervisor Name: Prof. Roma Mitra Debnath



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Certificate

I have the pleasure to certify that Shri Pradeep Kumar Misra has pursued his research work and prepared the present dissertation titled "Multilingualism aspect of National Education Policy 2020: Implementation challenges in schools and way forward to post National Education Policy" under my guidance and supervision. The dissertation is the result of his own research and to the best of my knowledge, no part of it has earlier comprised any other monograph, dissertation or book. This is being submitted to the Panjab University, Chandigarh, for the purpose of Master of Philosophy in Social Sciences in Partial fulfilment of the requirement for the Advanced Professional Programme in Public Administration of Indian Institute of Public Administration (IIPA), New Delhi.

I recommended that the dissertation of Shri Pradeep Kumar Misra is worthy of consideration for the award of M. Phil degree of Panjab University, Chandigarh.

mamhi (Dr. Roma Mitra Debnath)

Indian Institute of Public Administration, I.P. Estate, Ring Road, New Delhi- 110002

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Glossary of Terms

BEL:	Below English Line
BPL:	Below Poverty Line
DA:	Dearness Allowance
DIET:	District Institute of Education and Training Centre
EFA:	Education for All
EFL:	English being taught as a foreign language
EMI:	English as a medium of instruction
EPF:	Employees' Provident Fund
GDP:	Gross domestic product
GER:	Gross Enrolment Ratio
K-12:	Kindergarten through 12th grade
LiE:	Languages in Education
MDGs:	Millennium Development Goals
MHRD:	Ministry of Human Resource and Development
MTB-MLE:	Mother-tongue-based multilingual education
NCERT:	National Council of Educational Research and Training
NCR:	National Capital Region
NEP 2020:	National Education Policy 2020
NITI Aayog:	National Institution for Transforming India Aayog
NPE:	New Policy on Education
NPS:	National Pension Scheme
NSS:	National Sample Survey
NSSO:	National Sample Survey Office
PGT:	Post Graduate Teacher

PPP:	Private Public Partnership
PRT:	Primary Teacher
RTE Act:	Right to Education Act
SDG4:	Sustainable Development Goal 4
SLC:	School Level Certificate
TGT:	Trained Graduate Teacher
TLM:	Teaching learning Material
UIS:	UNESCO Institute of Statistics
UN:	United Nations
UNDP:	United Nations Development Programme
UNESCO:	United Nations Educational, Scientific and Cultural Organization
UP:	Uttar Pradesh

Executive Summary

National Education Policy 2020 imbibed multilingualism to attain the objectives of SDG4- to promote equity, equality and inclusion.

Objective for study of the topic is enumerated as under:

- To critically examine the multilingualism aspect of National Education Policy 2020,
- To compare National Education Policy 2020 vs old Education Policy on multilingualism aspect,
- To explore the challenges in implementation of multilingualism aspect of National Education Policy 2020 in schools from the various stakeholders of education system
- To suggest the way forward for effective implementation of National Education
 Policy 2020

Research question related to objective (i) and (ii) are addressed on the basis of secondary data whereas research questions that emanates from objective (iii) entailed to be addressed on primary data. Research question related to last objective is addressed on the basis of secondary data as well as primary data collected.

Two set of questionnaires were designed for parents and schools, as issues concerning to implementation of multilingualism of NEP 2020 for respective stakeholders are different. Both the questionnaires contained – structured as well as unstructured questions. Considering the fact that many persons may not be comfortable with English in Delhi/NCR and UP area, the area of study, questionnaire for parents was translated

in Hindi. The translated Hindi version of questionnaire was got validated by the person having good knowledge of both languages- Hindi and English, so that intended meaning of questions being asked is conveyed to the respondents and is not different from the original questionnaire.

Convenient sampling was adopted in selection of respondents. Data was collected between last week of Jan' 21 and 1st Week of March'21. Total 73 questionnaire were received from the parent respondents. After going through the questionnaires, 12 responses were found incomplete and improper, thus 61 questionnaires were considered for analysis.

Total 22 responses were received from principals/teachers at schools. Out of 22 responses, response from one respondent schools was incomplete whereas 10 responses of teachers at a school were same as that of Principal of school, hence these responses were not considered for analysis to avoid biases and false influence on the findings. Therefore, 11 responses from principals/teachers were considered for analysis.

Descriptive statistics of parent respondent profile as well as school respondent profile along with information about school was analysed for the purpose of ascertaining the representativeness of sample as population. Descriptive statistics of most of the profile parameters indicate that respondent profile was broadly spread over the entire continuum. Findings suggest that majority of the respondents (over 85%) view the provisions of multilingualism advantageous, however, most of them barring few also perceive challenges in implementation of these provisions.

Responses received from 61 parents' respondents and 11 schools' respondents were analysed manually. Themes were identified from the response of each respondent for respective research question and these themes were coded and listed against each

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research question. Common themes had also emerged during coding process, hence, frequency for each theme was counted and maintained separately along with the theme. Further, similar themes of first order were merged into second order themes and subsequently into 3rd order themes to attain higher order of abstraction and have some meaningful analysis. Further, these higher order themes were appropriately named. Grouping of themes were independently reviewed by an undergraduate student having fair idea of NEP 2020. Differences wherever found were discussed and sorted out. Hierarchy of themes for respective research questions are tabulated in separated table. Findings suggest that enhanced learning and comprehension of subject is major advantage whereas availability of teachers and their capability; availability of textbooks/material in home language/mother tongue, language power and social identity of English are major challenges in implementation of provisions of multilingualism.

Large data set of parent respondents enabled me to employ word cloud technique for text analysis. Tableau BI software Tool was used for text analysis using word cloud. Data in excel file was delimited, sentence was broken in words, each word stored in separate column, saved as Text file and finally converted into pivot table. The verbs, preposition and unrelated words were excluded from the analysis. Thus, word cloud was generated for responses against six (sub) research questions. The word cloud broadly corroborates and validates the identified themes from the responses of respective research questions.

Critical aspects of Multilingualism of NEP 2020 are- to impart education in home language/mother tongue/local language/regional language until at least Grade 5; bilingual teaching of Science and Math; teaching of three languages, out of which at least two languages will be native languages, in grade 3 and beyond; and teaching of

classical languages and international languages; hiring of language teachers from respective states. Major dissimilarity of Multilingualism aspect of NEP 2020 that of earlier education polices is in respect of its scope. Earlier education policies were made applicable only for government schools whereas NEP 2020 is applicable for both private schools as well as government schools. Financial implication on govt exchequer for implementation of multilingualism aspect of National Education Policy 2020 will mainly be on Hiring of teachers/capacity building of teachers, Translation of teaching material and printing of textbooks in home language/mother tongue/regional languages. Estimated annual expenditure on hiring of teachers on account of implementation of multilingualism aspect of NEP 2020 may be Rs 92,223 Crore.

Way forward for effective implementation of NEP 2020 is given as under:

- Textbooks may be re-written in home languages instead of going word by word/sentence by sentence translation to make the content interesting and enhance the flow writing.
- 2. Economic value- availability of good higher education in regional languages and employability, may be associated with regional languages which will make the whole process market driven and students will automatically go for learning in mother tongue with interest.
- 3. Though English should not be used as a medium of instruction as provisioned in NEP 2020. However, it may be taught as a language so that competitiveness of the country and global connectedness of student is not jeopardized.
- 4. Children may be taught in their home language/mother tongue during their primary education, whereas they may be imparted education in regional language from upper primary (6th standard) onwards after they are taught regional language under three language formula.

- 5. Terminologies of technical words of science and math may be adopted as it is in home language rather than translating those terms in home language otherwise remembering two different names of same term and relating them to the concept may cause confusion in mind of young ones. Further, basic concepts may be explained in mother tongue/home langue and details may be covered in English.
- 6. Textbooks of science and math may be printed in bilingual on page-to-page basis (e.g.- left page English version and right page Mother tongue version or vice-a-versa) so that frequent flipping of the pages to refer content of a particular language is avoided rather than printing separate books in both languages.
- 7. Findings of research suggest that Translator technology can be useful for teaching subject content in mother tongue/home language. Further, Apps and tools that facilitate smooth transition from one language to another language may be helpful for bilingual teaching. Audio visual aids may be useful for teaching of languages. Further, govt. may invest or incentivize development of such tools and Apps in open source to enable resource constrained pvt. schools and govt schools to promote inclusion and equity in society.
- 8. A Hub and Spoke model may be adopted for capacity building of teachers with District Institute of Education and Training Centre (DIET) as a Hub and primary schools and other government schools as spokes.
- 9. Investment in elementary education is utmost important to build the foundation and the efforts of enhancing research and development and quality higher education may not fructify unless there is a strong foundation of elementary education particularly in science and technology domain.

- 10. Priority in hiring may be given to such teachers who are well versed with the language as well as having comfort in mother tongue.
- 11. Option of Public private partnership may be explored for the schools which are highly economic un-viable.
- 12. An informal platform may be created by the state governments for discussion in regional language of respective state on effective teaching of the subject.

Findings spur a pleasant surprise that parent respondents among whom 93% possesses qualification graduate and above, 77% are earning more than 10 Lakhs per annum and children of 77% respondents studying/studied in private schools are likely to be major beneficiary of social identity and language power of English, but most of them told the provisions of multilingualism advantageous. Government has very effectively communicated the policy to its stakeholders, first part of implementation of policy.

Several challenges are perceived to be posed in effective implementation which is obvious as a bold policy has to face challenges in its implementation. A proper strategy for translation of content into mother tongue/home language, which is not the traditional way of translation of word to word or sentence to sentence, needs to be devised to make the content easy to understand and interesting for the students. Enforcement of government in implementation of provision of multilingualism would not fructify unless economic value with mother tongue/home language/regional languages is associated. Let the whole process be driven by market then there would not be many to take the pricy education from private schools of English medium Instruction. Capacity building and hiring of teachers is another major challenge to be addressed. There is no need to use English as a medium of instruction but English as a language may be taught/continued to be taught so that prospects of acquisition of higher education from abroad are not hampered and simultaneously competitiveness of country remains intact. I am sure that resolution of initial challenges in implementation of this policy will provide a good return on investment in long term and future generations will bear the fruit of effective implementation of the policy. The benefits will not be limited to a section of society rather it will benefit a whole society and infuse inclusion, equality and equity in society.

Chapter-1

Introduction

1.0 Introduction

Education is one of the most important factors to realize individual's capability, evolve an equitable and inclusive society and enhance the nation's economic development. Considering the importance of education, UNDP declared global education development-SDG4 with objective to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" by 2030. Accordingly, National Education Policy has been notified to facilitate an inclusive, participatory, and holistic approach for imparting education including attaining objectives of Sustainable Development Goal.

Language is most germane medium of communication and education; thus, its development always captured an important place in the National Policy on Education. Cook (2003, 2007) describes that learning of a second or an additional language positively impacts learner's whole cognitive system. Multilingualism is an important aspect of National Education Policy 2020 which envisages "to learn and grasp nontrivial concepts more quickly in their home language/mother tongue" and promote national unity. But multilingualism in India is distinguished by and unequal status of the different languages (Mohanty, 2004) which resulted multilingualism to a hierarchical 'pecking order' in India (Phillipson, 2001, as cited in Mohanty, 2006). Thus, multilingualism poses several socio-political as well as economic challenges in its implementation. This study critically examines the multilingualism aspect of national education policy and explores the challenges in its implementation.

1.1 About National Education Policy 2020

National Education Policy and Multilingualism

National Education Policy 2020 (NEP) envisages an education system enrooted in Indian ethos and facilitates to transform India into 'an equitable and vibrant knowledge society' to make India a 'global knowledge superpower' by imparting high-quality education. NEP broadly categorized in to two parts i. School Education which includes from primary school education till senior secondary school education ii. Higher Education. NEP for school education, in general, and its Multilingualism aspect, in particular, is briefly discussed in subsequent para.

NEP is guided by several principles viz. 10+2 school curricula structure to 5+3+3+4 curricula structure, summative assessment format to formative assessment format, introduction of 'light but tight' regulatory framework, promoting multilingualism and the power of language. NEP for school education mainly emphasizes upon i. Early Childhood Care and Education, ii. Foundational Literacy and Numeracy, iii. Curtailing Dropout Rates and Ensuring Universal Access, iv. Curriculum and Pedagogy in Schools, v. Capacity building of teachers, vi. Equitable and Inclusive Education, vi. Efficient Resourcing and Effective Governance, viii. Standard-setting and Accreditation for School Education aspects. Principle for promotion of multilingualism and power of languages has been envisaged as an important component of Curriculum and Pedagogy in Schools for making learning Holistic, Integrated, Enjoyable, and Engaging.

One of the fundamental principles of among several others is 'promoting multilingualism and the power of language in teaching and learning" which has been envisaged to guide the education system. The National Education Policy envisions to transform India "sustainably into an equitable and vibrant knowledge society, by providing high-quality education to all, and thereby making India a global knowledge superpower" through an education system embedded into Indian ethos.

It states that "young children learn and grasp nontrivial concepts more quickly in their home language/mother tongue". Continuing the tradition of earlier education policy, National Education Policy -2020 has also emphasizes upon use of mother tongue/home language as medium of instruction and states that "Wherever possible, the medium of instruction until at least Grade 5, but preferably till Grade 8 and beyond, will be the home language/mother tongue/local language/regional language". In contrary to Education Policy 1951, wherein education policy was made applicable to only government sponsored education and private educational institutions continued to use English as a medium of instructions, National Education Policy- 2020 mentioned in very explicit and unambiguous terms that "this will be followed by both public and private schools". However, policy also provides leeway to the Private schools to continue imparting of education in language other than mother tongue/home language/regional language by edition of term 'wherever possible'. It further states that "teachers will be encouraged to use a bilingual approach, including bilingual teachinglearning materials, with those students whose home language may be different from the medium of instruction."

This policy envisions to teach mother tongue to enable them early reading and subsequently writing during their foundational stage i.e. upto grade 2 with age between 2-8 years while the skills will be developed for reading and writing in other languages in children of Grade 3 and beyond. Central government and State governments shall endeavor "to invest in large numbers of language teachers in all regional languages around the country, and, in particular, for all languages mentioned in the Eighth

Schedule of the Constitution of India. States, especially States from different regions of India, may enter into bilateral agreements to hire teachers in large numbers from each other, to satisfy the three-language formula in their respective States." NEP states that at least two languages out of three languages will be native languages of India and "no language will be imposed on any State".

NEP further states that endeavours will be made to enable the students to think and speak about science and mathematics in their home language/mother tongue as well as in English by providing them high-quality bilingual textbooks and teaching-learning materials.

Classical languages will be offered to all students as an option in both private and public schools for learning for at least 2 years from grade 6-12. In addition to Indian languages and English, foreign languages will also be offered to the students at secondary level.

This policy attempts to attain equality, equity and inclusion by making it applicable to both private and public schools.

1.2 Statement of the Problem

UNDP declared global education development agenda envisaged in SDG4 for 2030 and same was adopted by India in 2015. SDG4 aims to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" by 2030. These ambitious and challenging goals entailed the government to overhaul and reconfigure the whole education system, so that objective of Sustainable Development Goal 4 can be attained.

RTE Act 2009 made elementary education a public good. However, imparting of quality education remained a challenge which caused increase in drops out from school

(NSSO survey 2007-2008) and caused migration from govt schools to private schools. Education provided by the private schools can be considered as a club goods and is being provided at hefty fee. This phenomenon i.e. lack of imparting of quality education by majority of schools, created a void in market. This void to some extant has been filled by private schools at exorbitant fee. However, lack of quality education particularly in rural area indicates existence of market failure for imparting quality education. Further, quality education is not accessible to lower strata of society which causing a social failure. However, more puzzling fact is that decline in Gross Enrolment Ratio (GER) is higher for certain socio-economically disadvantaged groups. Example-"Participation of women in employment and decision-making remains far less than that of men, and the disparity is not likely to be eliminated by 2015." (Government of India MDG Report 2009). Large decline of GER for certain socio-economically disadvantaged groups suggests social failure. One of the important roles of Government is to address the problem of market failure and social failure by appropriate intervention. Accordingly, Govt responded to address problem of market failure and social failure, caused by huge gap in quality of education between govt schools and private schools and its accessibility to all, by its intervention in the form of National **Education Policy**.

Further, elapse of 34 years period since notification of present policy brought several changes in environment including rapid changes in knowledge landscape of world which entailed government to respond these changes in form of National Education Policy. (Tharoor, 2020) stated that challenge would be "to ensure aspiration is matched by implementation." This view has been echoed by (Kant, 2020), CEO, NITI Aayog, and has been mentioned that "As with every policy, the real test of NEP will be translating it to action. Backed by expeditious and effective implementation in sync

with its spirit, NEP could shape the lives of our future generations." Multilingualism is an important aspect of National Education Policy as the policy envisages that comprehending concepts in mother tongue/home language will be easy and will promote national unity. Thus, there is a need to study issues and challenges for effective implementation of National Education Policy 2020.

1.3 Objective

Objective for study of the topic are enumerated as under:

- To critically examine the multilingualism aspect of National Education Policy 2020,
- To compare National Education Policy 2020 vs old Education Policy on multilingualism aspect,
- To explore the challenges in implementation of multilingualism aspect of National Education Policy 2020 in schools from the various stakeholders of education system
- To suggest the way forward for effective implementation of National Education Policy 2020

1.4 Rationale

New Education policy 2020 has been notified by Govt of India to meet the challenges to attain the goals of SDG4 and to facilitate an inclusive, participatory, and holistic approach for imparting education. Several fundamental principles including promotion of multilingualism and the power of language guide New Education policy 2020. These principles are envisaged to facilitate in taking giant leap towards establishing India as a "global knowledge superpower". But at same time, these principles pose several challenges for implementation of education policy. Multilingualism is an important aspect of National Education Policy and poses several socio-political as well as economic challenges in its implementation. Further, National Education Policy has been notified recently on 29th July' 2020. Hence, no research has so far been published on topic under research in this study. Further, National Education Policy envisioned to ensure inclusion, equity, and equality. Effective implementation of NEP may be a paradigm shift in socio-political and economic development of country. Thus, research on implementation challenges of NEP has greater relevance for society, which is an important rational for conduct of research on topic. Therefore, non-publication of research on topic under study and its social relevance provides adequate justification for research on topic. This study proposes to critically examine the National Education Policy 2020 from the perspective of various stakeholders' viz. parents and teachers.

1.5 Research strategy and Research design

This study intends to adopt quantitative research strategy to conduct the research. Quantitative research strategy is defined as, "A research strategy that emphasises quantification in the collection and analysis of data…" (Bryman, 2012: p35). Further, quantitative research is normally "objective" in nature. In consonance with research strategy, explanatory, and descriptive research design is proposed to be used for analysis.

1.6 Research questions

Research questions, enumerated as under, are formulated to attain the objectives of study:

Q1. What are the similarities and dissimilarities between National Education Policy 2020 and old education policy in the context of Multilingualism?

Q2. What are the critical aspects of Multilingualism of National Education Policy 2020 in schools?

Q3. What is the opinion of the schools on implementation of multilingualism aspect of National Education Policy 2020?

Q4. Exploring parents' perception on implementation of multilingualism aspect of National Education Policy 2020?

Q5. What would be the estimated financial implication on govt exchequer for implementation of multilingualism aspect of National Education Policy 2020?

Q6. What is the way forward to eliminate the impediments in implementation of multilingualism aspect of National Education Policy 2020?

Chapter-2

Literature Review

2.0 Multilingualism

Multilingualism is defined as the "ability of societies, institutions, groups, and individuals to have regular use of more than one language in their everyday lives over space and time" (Franceschini, 2011). Multilingualism has been considered as a positive phenomenon and same has caught public attention more and more in last few decades which has further been acknowledged for targeted promotion (Franceschini, 2011). To give an example, the European Union has set itself the goal of promoting two languages in addition to the first language using various measures. The term sometimes stands for an extended view of the earlier research into bilingualism and second language acquisition (De Angelis, 2007). Asia and Africa are the most multilingual continents (Cenoz, 2013).

Research scholars contended that first language of linguistic minorities or marginalized groups be recognized in the education sector, being the only way to attain the desirable goal of additive multilingualism (Cummins 2000; Desai 2000, Kymlicka 2001). Crystal (2003) contends that: 'in ... additive or elite bilingualism, a majority group learns a second language without this being a threat to its first language...'. Extant literature evidence that simultaneous bilingualism is similar to monolingual means first level language development (Bhatia & Ritchie, 2008). Additive multilingualism is referred to as acquisition of a new language in sequential manner after development of native language. Additive multilingualism is defined as the process through which learner acquires a new language while still maintaining and developing her mother tongue

(Cummins, 2000; Heugh, 2000). Research scholars advocates for adoption of "sustainable additive multilingualism," which is defined by them as "a situation in which the mother tongue is used throughout the educational system, and additional languages are learned without detracting from the development of the mother tongue" (Erling et al., 2016).

In contrary to "additive bilingualism" is "subtractive bilingualism" (Biseth, 2009). He further argues that additive multilingualism is of paramount importance to magnify "cognitive, linguistic and academic growth". The critical factor that facilitates to attain this goal is that the educational system grants recognition to mother tongue or first language (Skutnabb-Kangas, 2000). In contrary, subtractive bilingualism may lead to "risk of displacing or replacing the mother tongue, and the mother tongue is not learned at a high level" (Skutnabb-Kangas, 2000).

2.1 Multilingualism and India

Linguistic diversity is considered as a 'hallmark of India' (Bhatia & Richie, 2004). It is not the presence of several languages in different walks of social life of Indian society rather dynamics of relationship among these languages and their users make the ethos of languages quite perceptible different from dominant monolinguistic societies (Mohanty, 2006). Thus, communication across country is not impaired despite linguistic diversity (Khubchandani, 1978). Pattanayak (1984) states that 'If one draws a straight line between Kashmir and Kanyakumari and marks, say, every five or ten miles, then one will find that there is no break in communication between any two consecutive points.' This is continuance of communication across the country is due to bilingualism of individual and community at the local or regional levels and same is leading to societal multilingualism (Mohanty, 2006). In contact situations, this is the linguistic accommodation that leads to bi/multilingualism rather than by rejection of contact language (Bhatia & Richie, 2004).

India has recognised 22 languages that have been known as "the 8th Schedule" of the Indian Constitution, along with English as an associate official language. Pt. Jawaharlal Nehru, the first Prime Minister of India, had commented that 'The makers of our Constitution were wise in laying down that all the 13 or 14 languages' were to be national languages. There is no question of anyone language being more a national language than the others...' (Kumaramangalam, 1965, as cited at MHRD site). In accordance to Census (1991), India's national average of bilingualism was 19.44% which is significantly higher than the national averages of 1961 (9.7%), 1971 (13.04%), and 1981 (13.44%). The average rate of trilingualism in India, which was first time added in 1991 census, is 7.26%. It posits that population is increasingly turning to bilingualism.

2.2 Multilingualism in Education

In education, Multilingualism is defined as a use of two or more languages in medium of instruction (UNESCO 2003). Cook (2003, 2007) describes that learning of a second or an additional language impacts learner's whole cognitive system. Cook (1997) also contends that knowledge of multiple languages viz. multilingualism alters the path how people think. Our Hon'ble Prime Minister Narendra Modi has outlined the paradigm shift in the education policy and said that "In our education system the focus has been on 'What to Think' while the new Education Policy will emphasise on 'How to Think'." Research scholars unequivocally posit the benefits of multilingualism with additive effect. Accordingly, advantages of bilingual children have very aptly been stated as under: schooled as well as unschooled, have a distinct edge over their mono- lingual counterparts in terms of their cognitive and intellectual skills, metalinguistic and meta-cognitive task performance and educational achievement [in the case of schooled children]. (Mohanty, 2000).

Research scholars further contends that additive multilingualism is of paramount importance to magnify "cognitive, linguistic and academic growth" (Biseth, 2009). Evidences from cross-cultural studies including research conducted in Indian context (Mohanty & Perregaux, 1997) underpin the 'positive psychological and social role of multilingualism' (Mohanty, 2006).

2.3 Multilingualism and Earlier Education policies

National Education Policy 1968 contend that development of regional languages is sine quo non- indispensable and essential, for educational development. It further emphasizes that gap between intelligentsia and common people will remain intact if not widen further until Indian languages are not developed. Policy did not mandate the use of regional languages as medium on instruction, as it felt that regional languages are already in use at primary and secondary level as medium of instruction. However, it went a step ahead and called for urgent action for adopting Indian languages as medium of instruction at university level.

National education Policy 1968 emphatically argued for adoption of three language formula. Three language formula states that one modern India language preferably southern language, in addition to Hindi and English in Hindi speaking states while Hindi along with regional language and English in non-Hindi speaking states should be adopted by respective state governments at secondary stage. It has also emphasized on development of Hindi as link language and establishing colleges and higher education institutions which use Hindi as a medium of instruction. Further, special emphasis was also laid for providing facilities for teaching of Sanskrit more liberally, recognizing its special contribution to growth and development of Indian languages. Policy argued for strengthening the study of English so that pace with growing knowledge of world particularly in Science and Technology can be maintained.

National education Policy 1986 (Modified in 1992) described that provisions of earlier Education policy – had been deliberated in detail and there is hardly any scope for improvement. Further, it accepted the relevance of those provisions even at the time of implementation of new policy. However, it explicitly mentioned that implementation of National education Policy 1968 has been uneven, thus, needs to be implemented more energetically and purposefully. Therefore, there had been no change in the policy of 1986 as far as development of languages was concerned.

2.4 Multilingualism and Education polices in Indian Context

Policies on education in India w.r.t. Languages in Education (LiE) can be categorised into two-part i. use of language as a medium of instruction in schools ii. Teaching of languages in schools. Accordingly, both are discussed in detail under separate head.

2.4.1 Medium of Instruction in schools

Many research scholars and educationists contend that implementation of earlier education policies had not been effective (Mundle, 2016; Singh, 1988). However, some countries had implemented their education policies successfully. Thus, review of literature in Indian context may facilitate to learn from the factors responsible for ineffective implementation of education policies. However, experience of some countries of successful implementation of policies may provide some insights to the implementer for enhancing the effectiveness of implementation after considering context of those countries. Accordingly, literature on medium of instruction in schools in Indian context and International context is being discussed separately.

2.4.1.1 Medium of Instruction in schools in Indian Context

James Scott describes the education imparted by colonial state as a "hidden transcript" of dominance. Abul Kalam Azad, first Education Minister of Independent India was extremely critical about imparting of education in English and articulated his thoughts in very forceful manner:

No Indian language but English which was foreign to us was made the medium of instruction. The result was that modern education in India began to be imparted in an un-Indian way. The Indians had to shape their minds in artificial and not in natural moulds. Not only they had to change their language but also their minds. Their whole approach to different branches of learning was through the medium of a foreign tongue. Now it became necessary for every Indian child to shape an artificial mind and to tackle every aspect of learning from an unnatural angle of vision. He could not enter the sacred precincts of learning with a natural mind.

Indian Constitution through its Article 350 A asserts that states and local authorities shall strive to provide adequate facilities for instruction in the mother tongue at the primary stage of education to children belonging to minority groups. In 1957, Government of India announced an official policy that contemplated that mother tongue or regional language should be medium of instructions in school. However, this policy was made applicable only to the Govt sponsored education. The private educational

institutions were having liberty to institute their own system in respect of languages. This option with private schools led to the proliferation of Public School imparting education in English medium (Mohanty, 2006). First Education Policy of country, the National Policy on Education, 1968 was pronounced which explicitly mentions that regional languages were already in use as the media of education in the primary and secondary stages. Next Education Policy, named as New Policy on Education (NPE), was announced in 1986. During discussion on ratification of policy, P V Narasimha Rao, then Education Minister professed 'that there was nothing in the NPE which was in common with the 1968 policy except that the language policy as laid down in 1968 had been reiterated.' (Singh, 1988). Thus, language policy which included policy on Education (NPE), 1986.

Meghanathan (2011) states that 75 different languages are used in education system of India and 31 languages, out of these, are used as medium of instruction.

Disaggregated analysis of the unit level data of the 64th round of the National Sample Survey Office (2007-08) posits that 5% of elementary age group children drop out from schools (Sikdar & Mukherjee, 2012). Out of these dropouts, 40% children condemn poor quality of education for their leaving of schools. Thus, language/medium of instruction used unfamiliar, being one of three indicators of quality education, is an important factor for discontinuation of elementary education in schools. Authors recommend that retention and completion in both elementary and secondary education can only be attained by improvement in quality of education i.e. imparting of education in mother tongue/home language and mitigation of financial constraints. Many research scholars argued for advantages of imparting education in mother tongue, but these findings have not been ubiquitous, and some contrarian opinion/findings have also been suggested by some research scholars and educationists. Findings of one such study on English-Vernacular Divide in India posits advantages of English medium instruction. Study found that students, who attained education from vernacular-medium of instruction, would be more likely to acquire admission in social sciences and humanities, whereas students from English Medium instruction undertake graduation in medicine and engineering, (for example) (Ramanathan, 2007). Further, Dalits in India surmised that knowledge of English substantially would liberate them and this belief of liberation from poverty led to 'English Goddess' movement of the Dalits in India (Rao, 2017).

Permanent Forum of UNESCO in its twelfth session (2013) recommended that 'Indigenous peoples who maintain their cultural practices and lifestyles on the basis of their traditional knowledge, vision of the world and spirituality are confronted by educational systems that have little regard for indigenous cultures, indigenous languages and indigenous knowledge'. Further, it is evidenced that most poor and indigenous peoples acquire poorest quality of education. It further proposes that 'Education in the mother tongue and bilingual education, foremost in primary and secondary schools, lead to effective and long-term successful educational outcomes. The Permanent Forum urges States to fund and implement the Programme of Action for the Second International Decade of the World's Indigenous Peoples.' In its sixteenth session (2017), permanent forum recollected recommendations of its thirteen session and urged to all its member states to adopt and fully implement the comprehensive national indigenous education policies. National Education Policy 2020 states that "young children learn and grasp nontrivial concepts more quickly in their home language/mother tongue". Continuing the tradition of earlier education policy, National Education Policy -2020 has also emphasized upon use of mother tongue/home language as medium of instruction and states that "Wherever possible, the medium of instruction until at least Grade 5, but preferably till Grade 8 and beyond, will be the home language/mother tongue/local language/regional language". In contrary to Education Policy 1951, wherein education policy was made applicable to only government sponsored education and private educational institutions continued to use English as a medium of instructions, national education policy- 2020 mentioned in very explicit and unambiguous terms that "this will be followed by both public and private schools". However, policy also provides leeway to the Private schools to continue imparting of education in language other than mother tongue/home language/regional language by edition of term 'wherever possible'. Thus, this policy attempts to attain, though halfheartedly, equality, equity, and inclusion by making it applicable to both private and public schools. It further states that "teachers will be encouraged to use a bilingual approach, including bilingual teaching-learning materials, with those students whose home language may be different from the medium of instruction."

2.4.1.2 Medium of Instruction in schools in International Context

English is being proclaimed as a 'lingua franca for humanity', which everyone needs and should learn it (Pillipson, 2017). He further contends that English is projected as if it is so 'basic' for economic success but same is contradicted by the success of economies of China, Japan and Korea which succeeded by using their local languages in basic education. Same is being done by continental European countries. In any given context, it needs to be explored whether addition of English is an healthy addition in repertoire of languages of the nation, linguistic capital accumulation, or it leads to 'gradual subtraction and elimination of national languages', linguistic capital dispossession, (Pillipson, 2017). It is repeatedly contended that English has attained a hegemonic position in social and educational conversations in both colonial and non-colonial countries in current millennium while formulating language-in-education (LiE) policies (Ricento 2015). In Asia and Africa continents, most of the multilingual societies have formulated 'mother-tongue-based multilingual education (MTB-MLE) policy' in their endeavors to address the resolution of international organizations (e.g. United Nations) and research scholars (May 2014; SkutnabbKangas and Mohanty 2009; United Nations, 2013). Accordingly, LiE policies have been oriented to reflect upon pupils' home languages for both linguistic human rights and quality education.

There are two school of thoughts on adoption of medium of instruction. One school of thoughts advocates for use of mother tongue as a medium of instruction citing its various advantages like improvement in "cognitive, linguistic and academic growth" (Biseth, 2009) and promote linguistic human rights (United Nations, 2013). While propounder of other school of thoughts argued for use of English as a medium of instruction (EMI) in multilingual schools is primarily based upon perceived surmise that students will get more exposure in the English language, establishing a type of immersion context (Ricento 2015; Sayer 2015). Accordingly, many countries, propounder of earlier school of thought, mandated use of mother tongue as a medium of instruction at least in elementary education. In other countries, despite English being taught as a compulsory subject in such countries, it is perceived that English should be used as a language of instruction from earlier grades by adopting 'more & earlier' approach (Sayer, 2015).

Accordingly, these countries, though formulated 'mother-tongue-based multilingual education (MTB-MLE) policy' to agree with the request of UNESCO, adopted English as a Medium of Instruction (EMI) in elementary education (Sah & Karki, 2020).

A research carried out by the University of Oxford for the British Council deduces:

There appears to be a fast-moving worldwide shift, in non-anglophone countries, from English being taught as a foreign language (EFL) to English being the medium of instruction (EMI) for academic subjects such as science, mathematics, geography and medicine. (Dearden 2014, 4)

"Enhanced Basic Education Act of 2013" of Philippines mandates use of mother tongue as a medium of instruction from Kindergarten to Grade 3. DepEd Secretary, Bro. Armin A. Luistro, contend that language spoken at home and in early grades facilitates to enhance language and cognitive development of student in addition to re-enforcing their socio-cultural awareness (Saavedra, 2020). Two languages i.e. mother tongue and English are used as medium of instruction for imparting of learning of different subjects. Pilipino (change to Filipino in 1987) is used as the Medium of instructions for teaching of social studies, social sciences, music, arts, physical education, home economics, practical arts and character education while English is assigned for teaching of science, mathematics and technology subjects (Espiritu, 2009). Findings suggest that hegemony of the English language is still perceived over mother tongue, Chavacano which contradicts with principles of multilingual policy for mandating mother tongue as medium of instruction (Saavedra, 2020). Further, student might not be practicing language appropriately and exposure in acquisition of language, due to negative perception of teachers and lack of availability of instructional materials. Like Philippines, Urdu is used as a medium of instruction in Pakistan for social sciences whereas English is used as the medium of instruction for teaching mathematics and the natural sciences in the middle and secondary level (Gopang et al., 2018).

In Singapore, education is imparted in all grades exclusively in English medium while national languages are taught as subject only (Phillipson, 2017).

Nepal, as a member of United Nations, developed its LiE policy on the basis of recommendation of UN that 'Education in the mother tongue and bilingual education, foremost in primary and secondary schools lead[s] to effective and long-term successful education outcomes' (UN 2013, point 16). However, MTB-MLE policy of Nepal is barely exercised in practice (UNESCO 2012; Sah 2020b). After 2015, when country adopted Federal structure, School Sector Development Plan (2016- 2023) was envisaged 'that the local government bodies would prioritize their local languages in education as a process of bottom-up policymaking with the warranted constitutional rights to operate schools in local languages' (Sah & Karki, 2020). However, many municipalities of Nepal have determined to appropriate English as medium of instruction policy in their schools.

Research was designed to examine "(a) the perspectives of different stakeholders that have developed the EMI policy and (b) the ways EMI policy has been interpreted, appropriated, and negotiated in K-12 public schools in Nepal". Methodology used for collection of data was a 'phenomenological research method' a qualitative research method.

Findings of study suggest that understanding of academic content for the students was not attained fully, resulting into 'comprehension crisis' in English Medium Instruction (EMI) (Sah & Karki, 2020). Further, envisaged exposure to English, an instrument that facilitates students to thrive English proficiency, is also not discerned. Noncomprehension of content through EMI and non-mediation of understanding through it led EMI to keep students silent and killing their creativity. He further contends that this research in this regard posits 'epistemic injustice and inequalities' for minoritized students. It is argued that English Medium Instruction is considered as a pedigree of capital generation. Indigenous People of Nepal believe in EMI to emancipate themselves from poverty and deep-rooted social marginalization something similar to 'English Goddess' movement by Dalits in India (Sah & Karki, 2020).

In Bangladesh, National Education Policy 2010 recommended for using mother language as medium of instructions at the primary level of education and English as medium of instruction could be introduced from the secondary level (Chowdhury & Kabir, 2014).

In Kenya, education policy recommended use of mother togue as a medium of instruction from grade 1-3 and English as a medium of instruction from grade 4 onwards. However, English is used as a medium of instruction from grade 1-3 in most of the urban schools and mother tongue as a medium of instruction from grade 1-3 in rural schools (Oduor, 2015). Data was collected through interview of teachers on implementation of education policy. Teachers opined that it will be difficult to implement mother tongue as a medium of instruction in urban areas due to its cosmopolitan nature. However, it was suggested that education in mother tongue was only possible to be imparted in rural areas. Further, mother tongue as a medium of instruction was not supported by one teacher due to reason of lack of uniformity in imparting education. Findings suggest that language known to students across country

should be used in imparting education and mother tongue can be used for clarification and lying emphasis wherever required.

2.4.2 Teaching of Languages in Education Policy

2.4.2.1 Teaching of Languages in Education Policy in Indian Context

In pre-Independence India, Multilingual education had provision for 'use of one language as medium, and two or more languages as subjects of study' (Koul & Devaki, 2000: 114). In 1957, Government of India announced an official policy where in *three-language formula* was prescribed for use of:

- regional language or mother tongue as the first teachinglanguage for five years;
- (2) Hindi in non-Hindi areas and any other Indian language in Hindi areas as the second language (as a school subject) for 3 years (i.e. the 6th to 8th years in school);
- (3) English as third language subject from the third year onwards.

This three-language formula was made applicable only to the government sponsored education. The private educational institutions were having liberty to institute their own system in respect of languages. This option with private schools led to the proliferation of Public-School imparting education in English medium (Mohanty, 2006). National Policy on Education, 1968 states that "At the secondary stage, State governments should adopt and vigorously implement the three-language formula, which includes the study of a modern Indian language, preferably one of the southern languages, apart from Hindi and English in the Hindi-speaking States." While Hindi should be studied along with the regional language and English in the 'non-Hindi speaking States'.

It added: "Suitable courses in Hindi and/or English should also be available in universities and colleges with a view to improving the proficiency of students in these languages up to the prescribed university standards." All these education policies provisioned the three-language formula for school education, but this formula interpreted by the states in their own way. Tamilnadu explicitly denied to follow three language formula and did not implement it. Mohanty (2006) states that "English became the most common second language subject in all the states, followed by either Hindi or Sanskrit as a third language subject" despite different interpretations of policy by the states differently.

Chief Executive, British Council, contends in the 'Annual Report 2009-10: 'English Next India' tells us that from education to the economy, from employability to social mobility, the prospects for India and its people will be greatly enhanced by bringing English into every classroom, every office and every home' (italics added)' (Phillipson, 2017). Phillipson (2017) further argue that proponents of global English advances British interests worldwide, preserves linguistic imperialism, and 'use myths about English being necessary for all'. In contrary, Amartiya Sen, the Nobel laureate, condemns current Indian (education) policies and accords a genesis for more equitable policies that could facilitate to meet the needs of the entire population of India (Drèze and Sen 2014).

Several studies were conducted on schooled (Grades I to X) children and unschooled children groups in range of age 6 years to 16 years of Kond tribal community in Kandhamala district of Orissa wherein Kui-Oriya bilingual and Oriya monolingual

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Kond children were compared on several measures of cognitive, metalinguistic, and academic development. Finding of studies suggest that performance of bilingual children was better than their counterparts of monolingual children on various indicators of 'cognitive/intellectual development, metalinguistic ability, and academic achievement (of schooled children)' (Mohanty, 2010). He explains that interaction of bilingual/multilingual development with communicative challenge, caused by a complex linguistic environment, positively 'influences the cognitive, metalinguistic and metacognitive skills of children with positive impact on their intellectual and academic performance'. However, negative aspect is also associated with multilingualism, as multilingualism in South Asia is characterised as a hierarchical multilingualism with English on its top, other major languages in middle and indigenous and tribal languages at bottom of hierarchy. Languages at top pushes the languages, placed lower in hierarchal pecking order, out of significant public domain due to linguistic double divide (Mohanty, 2010).

National Education Policy 2020 envisions to teach mother tongue to enable them early reading and subsequently writing during their foundational stage i.e. up to grade 2 with age between 2-8 years while the skills will be developed for reading and writing in other languages in children of Grade 3 and beyond. Central government and State governments shall endeavor "to invest in large numbers of language teachers in all regional languages around the country, and, in particular, for all languages mentioned in the Eighth Schedule of the Constitution of India. States, especially States from different regions of India, may enter into bilateral agreements to hire teachers in large numbers from each other, to satisfy the three-language formula in their respective States." NEP states that at least two languages out of three languages will be native languages of India and "no language will be imposed on any State".

Accordingly, LiE policies have been oriented to reflect upon pupils' home languages for both linguistic human rights and quality education. However, English is maintaining its dominant position in LiE policies, even being mentioned within the MTB-MLE policy (see Sah 2020a for the discussion on the South Asian context).

2.4.2.2 Teaching of Languages in Education Policy in International Context

English is the language of power, as in other former colonies, with the consequence that more than half the population of Singapore use English as the home language (Pakir 2007: 197). They have limited competence in other languages as well as in Singlish, a hybrid creole for informal purposes. This has been a process of subtractive language learning, a replacement of local languages by English. In Singapore, national languages are taught as subject only (Phillipson, 2017).

In Bangladesh, National Education Policy (2010) emphasizes on English writing and speaking from starting of primary education. However, English is to be taught as a compulsory subject in all streams from secondary level (Chowdhury & Kabir, 2014).

In Kenya, education policy envisages to teach mother tongue, Kishwali and English as a subject from classes 1-3 whereas Kishwali and English are used as compulsory and examinable subject from grade 4 onwards in primary and secondary schools (Oduor, 2015).

In Singapore, national languages are taught as subjects only (Phillipson, 2017) and mother tongue is taught as a compulsory subject in primary school.

2.5 Challenges in implementation

Research scholars and educationists raised the question on effective implementation of education policies and (Mundle, 2016) Professor, National Institute of Public Finance

and Policy states that "Why has India's school education policy been so ineffective?". Reasons attributed for the same have been as focus on inputs rather than learning outcome, strong elitist bias in favour of higher education as opposed to primary or secondary education, low ratio of per student public expenditure in tertiary relative to primary education, the incentive structure for government school teachers". In context of Bangladesh, Unterhalter et al. (2003) complaint about inefficacy of politics and the 'fragile dialogue' between policy makers and practitioners of English and this fragile dialogue distinguishes Bangladesh's education policy. Imam (2005) mentioned that policy and practice are 'fragmented and inconsistent' (Imam, 2005). Similar view has also been echoed by Singh (1988) in context of earlier education policies of India and states that gap between theory and practice is hallmark of the education planning. Researchers condemned that education policy development has predominantly became the domain of elite groups affiliated with government (Unterhalter et al. 2003). Singh (1988) condemn persistent neglect of elementary education and excessive emphasis on higher education and states that 'If elementary education has been neglected, it is more an act of omission that of commission'.

Research scholars posited that earlier education policies have not been effectively implemented. (Pokhariyal, 2020), Education Minister, in a webinar stated that "Those who doubt the benefit of using mother tongue as a medium of education, I would say some top developed countries accomplished great achievements with it. We are not against the English language, but we want to strengthen Indian languages,". Whereas (Anderson, 2020) Director, Chaman Bhartiya School, Bangalore, said about medium of instruction in mother tongue that "Students learn easier in their mother tongue. But, in a multilingual country like India, it might come across as a challenge with various states, regional and national languages." and its implementation may be difficult due to

India's diversity. There are disparate views about the implementation of use of mother tongue/home language/regional languages as medium of instruction and implementation of three language formula. Thus, various challenges related to socio-political as well as economic are expected to be encountered during implementation of national education policy 2020. Extant literature w.r.t. education policies has been reviewed to discern the challenges in implementation of National Education Policy 2020 and same are discussed in following section.

2.5.1 Socio-Economic Challenges

Evidence affirms that the most poor and indigenous peoples, 'who maintain their cultural practices and lifestyles on the basis of their traditional knowledge, vision of the world and spirituality', experience the poorest quality of education (UNESCO, 2013). Research scholars and educationists unequivocally contend that outcomes of improved education positively influence the well-being of indigenous peoples and contributes towards betterment of their socioeconomic conditions. Various issues concerning with social challenges and economic challenges are thoroughly being deliberated as under:

2.5.1.1 Social Challenges

i. Mother tongue as Medium of Instruction

Research scholars argued several advantages for imparting multilingual education (Franceschini, 2011) and advocated for recognition of first language of linguistic minorities or marginalized groups in the education sector to attain the desirable goal of additive multilingualism (Cummins 2000; Desai 2000, Kymlicka 2001). In contrary, Tsui and Tollefson (2004) contend that choice of language(s) as media of instruction is perpetually guided by politics, generated a contradictory discourse of Language in

Education (LiE) policy in contexts of multilingualism. Mohanty (2010) describes that national and regional dominant languages (e.g. Hindi) are surmised as Medium of Instruction for children from divergent home languages in Indian context. Hindi, being a dominant language of country, is usually considered as the home language of all children and accordingly made the only Medium of Instruction across schools (Mohanty 2010). Multilingualism in education for minorities, tribal and endangered languages accentuates the sense of inferiority and leads to fragmenting the cohesion of society (Rao, 2017). Multilingualism is contended to be as a resource for an individual and society and offers several advantages when used in imparting education. In contrary, association of multilingualism with inequality privileges only few while disadvantages many (Mohanty, 2010). He further contends that multilingualism in India indicates manifestation of such inequality, as it results to capability deprivation and poverty for the people of marginalized language communities like tribal peoples. Thus, lack of a policy framework for languages in education that is effective and consistent may continue to foster inequality in society. Shailendra Sharma, Principal Advisor to Director Education, Government of Delhi, advocates for use of mother tongue as a medium of instruction in formative years as it is scientifically proven to be a better option for children. "However, by creating sound language learning architecture which includes listening, speaking, reading and writing fluently in each of the three languages that the states are authorized to teach, the schools would be able to convince the parents that their child is not going to be left behind."

Though New Education Policy is equally applicable for both public and private schools. However, policy also provides leeway to the Private schools to continue imparting of education in language other than mother tongue/home language/regional language by edition of term 'wherever possible'. Thus, this policy attempts to attain, though halfheartedly, equality, equity, and inclusion by making it applicable to both private and public schools. Consequently, private schools may continue imparting education in dominant languages rather than using home language/mother tongue as a medium of instruction. Therefore, multilingualism or imparting of education in mother tongue/home language in government schools may perpetuate a sense of inferiority in student of lower strata of society. Thus, this will be a challenge for implementer of education policy to break the saddles of pecking order created by earlier education policies and to ensure that objective of attaining equality, equity, and inclusion is not jeopardized.

ii. Social Identity associated with English Language and its power

Research scholars contend 'that these are socially constructed identities rather than objective realities' (Banks 2001). Cenzor (2010) also argues that English is discerned as a resource that facilitates to exploit better opportunities and is related to social and economic mobility. He further contends that English is the language of power, even in today's India and manoeuvred as a manifestation of 'greater control over outcomes of social activities.' Further, English as a medium of instruction was considered as a "means to social and economic resources" in colonial period (Mohanty, 2006).

Jayadeva (2018) quoted Vanamala Viswanatha (Writer and teacher educator) stating that 'There is now a new caste system that divides people—either you have English, or you don't. Instead of BPL [Below Poverty Line] I would like to propose BEL...Below English Line...the new cut off...it determines whether you belong to the haves or the have nots.' in his article. He further argues that proficiency in English speaking plays an important role in acquisition of capital associated with middle class identity to claim and maintain membership of middle class regardless of his possessing of other kinds of middle-class cultural capital.

iii. Subtractive effect of three language formula on native languages

This policy envisions to teach mother tongue to enable them early reading and subsequently writing during their foundational stage i.e., up to grade 2 with age between 2-8 years while the skills will be developed for reading and writing in other languages in children of Grade 3 and beyond. NEP states that at least two languages out of three languages will be native languages of India and "no language will be imposed on any State".

Considering the power, social identity, social and economic mobility associated with English, it is implicit from three language formula that one of the languages is most likely to be English irrespective of which are other two native languages are. Mohanty (2006) argues that 'in practice, English is better placed in school education in India than Hindi, the national language'. Further, multilingualism in India is distinguished by and unequal status of the different languages (Mohanty, 2004). Phillipson (2001) further adds that multilingualism resulted to a hierarchical 'pecking order' in India.

NEP 2020 provisions that 'children will be exposed to different languages early on (but with a particular emphasis on the mother tongue), starting from the Foundational Stage onwards. with early reading and subsequently writing in the mother tongue in the early years,...'. It further states that 'There will be a major effort from both the Central and State governments to invest in large numbers of language teachers in all regional languages around the country, and, in particular, for all languages mentioned in the Eighth Schedule of the Constitution of India.' Though NEP 2020 states that emphasis will be on exposure of student to their mother tongue, but it intends to make

the investment only in engaging the teachers of regional languages, particularly languages mentioned in eight schedules i.e., 18 languages. In such circumstances, hegemony of English and double divide may have subtractive effect on the mother tongue/home languages that are low in pecking order. This may not only marginalise such Indian native languages rather it may also jeopardise the benefits of additive multilingualism viz. "cognitive, linguistic and academic growth" of students.

Graddol (2006) argues that interest in English in some countries (for example, Colombia, Mongolia, Chile or South Korea) led to not learning English as a foreign language rather countries became bilingual in English and their national language. Similar fear i.e., bilingualism with home language of state and English is not uncalled for in various states of country. The issue of imparting education in languages with lesser power entails to be tackled before it becomes too late (Volker and Anderson 2015).

2.5.1.2 Economic Challenges

i. Quality of Education

The Education for All (EFA) initiative shifted its emphasis from 'basic learning needs of all children, youth and adults' to 'gender parity and equality, and improving education quality' (UNESCO, 2011). Thus, during period from 1990s to 2000, focus shifted from 'access to primary and/or basic education to quality and equity'. UNESCO in its Sustainable Development Goal 4 (SDG 4), adopted in 2015, also aims to "ensure inclusive and equitable quality education...for all." It has further been agreed to that important reasons for non-attendance of students of marginalised groups are: 'low quality of education, perceived irrelevance of curricula, or poor quality of teaching' (UNESCO, 2011). Quality of Education meant differently for different strata of society from the perspective of medium of instruction language. Findings of research study have been mixed and in 1990, Economic liberation policies of Nepal (Phyak, 2016) led to mushrooming of private schools, imparting education in English medium, also known as boarding schools (Sah & Li, 2018). These private English medium schools have consistently outperformed the Nepali medium public schools (federal government funded, zero- or low-fee schools) in examinations of School Level Certificate (SLC). This comparative higher achievement of private English medium schools made people of Nepal to contemplate English medium instruction education as analogous to high-quality education (Sah & Li, 2018).

Findings of a study on English-Vernacular Divide in India posits that students, who attained education from vernacular-medium of instruction, would more likely to acquire admission in social sciences and humanities, whereas students from English Medium instruction undertake graduation in medicine and engineering, (for example) (Ramanathan, 2007).

In contrary to public perception, 64th round of the National Sample Survey Office (2007-08) posited low quality of education as a most important factor for dropout of students from schools (Sikdar & Mukherjee, 2012). Further, use of unfamiliar language as language/medium of instruction was identified as an important indicator of low quality of education and use of mother tongue as a medium of instruction was recommended. However, contrarian view suggests that linguistic double divide and the socioeconomic stratification in society are important indicators of quality of schools in India (Mohanty' 2010). Schools in India can broadly be divided into five categories depending upon annual cost of schooling (to the parents) and the medium of instruction. Therefore, quality of the schools (education) in categorization is closely related to cost

of schooling to the parents. Further, students from low economic strata are subjected to low quality schooling from government schools, offering free education in Vernacular medium. In consonance to Mohanty (2010), Jayadev (2018) exhibit concern that whether students belonging to lower economic strata have reach to English skills, even by attaining lessons from English Medium Instruction public schools possessing low resources. Therefore, it can be construed that resources possessed by schools like teachers, professional management, access to technology is most important indicator of quality of education rather than medium of instruction, but most of such resource rich schools are imparting education in English Medium. Thus, social identity and power associated with English (dominant language) creates perception that English Medium education is analogous to quality education.

Research by Geeta Gandhi Kingdon, professor of education and international development at the Institute of Education, London (2017) suggests that 'Private schools gain 17 million students in 5 years, govt schools lose 13 million' during 2011-12 to 2015-16 (Business Standard, 2019). This migration from Govt Schools to Pvt schools raises many questions particularly when education in Govt School is free upto Age of 14 years under RTE Act 2009 and Pvt schools are charging exorbitant fee. Many of such private schools are either imparting education in EMI or teaching English as a subject since beginning of elementary education. But most of these private schools are low resourced including low quality teachers. In context of Nepal, findings of research in such EMI schools posit a 'comprehension crisis' and non-comprehension of content through EMI and non-mediation of understanding through it led EMI to keep students silent and killing their creativity (Sah & Karki, 2020). Further, envisaged exposure to English, an instrument that facilitates students to thrive English proficiency, is also not discerned. Thus, students are neither acquire good English skill nor comprehend the

concepts of other subjects like maths, science due to non-effective communication in language not their mother tongue.

Therefore, it will be challenge for govt to make the parents of students particularly belonging to lower economic and social strata convince that concepts can be better comprehended in mother tongue/home language. Further, quality of education is not related to imparting of education in dominant language rather it may create a hurdle in acquisition and assimilation of knowledge if it is not a mother tongue/home language.

ii. Employability/Economic value associated

Research scholars contend that rational behind adaptation of English medium instruction at private schools has been livelihoods approach to literacy education, means learning of a language is required for survival (Liechty 2003; Phillipson 2017). In Kenyan context, it is argued that mother tongues are not associated with the economy which lessens the chances of survival of mother tongue in the era of globalisation (Oduor, 2015). Further, 'neoliberal ideology' that elite EMI schools providing education to dominant social groups has initiated a debate that English skills are required for poor to compete in labour market (Liechty 2003; Phillipson 2017). In this regard, for'... African languages to become appealing in the linguistic marketplace, even to their own speakers; they must be assigned an economic value' (Kamwangamalu, 2009). He affirms that indigenous official languages must '... be vested with some of the privileges, prestige, power and material gains that have for so long been associated only with ex-colonial languages' to achieve the economic value.

Jayadeva (2018) describes 'Below English Line' analogous to Below Poverty Line and lack of literacy skills of English restrains to get membership of middle class, which is perceived as an important factor to find jobs in 'neoliberal market'. Similarly, neoliberal disposition, means ideology of competing with English Medium Instruction elite schools, is clearly visible in Nepal education (Sah & Karki, 2020). EMI education is perceived to offer a symbolic capital to minoritized students which helps them to claim the membership of dominant group. English literacy skill is used as a mechanism for liberation from economic marginalisation. Mohanty (2006) states that English was 'single most important predictor of socio-economic mobility' even during postindependence period in India. Further, knowledge of English is a predominant skill for employability in India and outside as well as to progress higher in one's professional life (Deccan Herald, 2012). Sayantan Dasgupta, Head of the Department of Comparative Literature, Jadavpur University, states that imparting education in mother tongue is a workable solution if it does not impair the grasp of the English language of students (Ghosh, 2020). He further states that "English should be allowed to exist side by side right from grade I since it is a means through which students can gain global access."

NEP 2020 provides flexibility to private schools to continue imparting of education in English medium. Research suggest that English skill is single most important predictor of socio-economic mobility and plays an important role for employability in India. Thus, EMI education provides a competitive edge over the mother tongue medium education for attaining employability as less economic value is associated with mother tongue (particularly Indian languages lying lower in hierarchy). Therefore, applicability of multilingualism concept to only govt schools (in practice) may prove a stumbling block to attain equality, equity and inclusion, the objective of NEP 2020.

2.5.2 Socio-political Challenges

Research scholars suggest that practical multilingual language policy in education is to an extent inspired by the current approaches to language planning, which are ... largely influenced by the recent political and social movements such as globalization, multi/interculturalism, pluralism, human rights and democratization (Kembo-Sure and Ogechi, 2006, p. 42). They also note that the '... ideology of pluralism gives room for the campaign to have all languages or varieties recognized and protected by the law of the land' (Kembo-Sure and Ogechi 2006, p.42).

Three language formula policy on education adopted a convenient strategy by accommodating at least three-languages in policy for school education. However, concerns have been enunciated by the educationists about 'unsatisfactory' implementation of education policy (Meganathan, 2011). Karunanidhi government implemented a policy named 'Samacheer Kalvi' (Equitable System of Education) w.e.f academic year 2010-2011. According to policy which is based upon two language system (Tamil and English), Hindi, Urdu, Persian, Arabic, Telugu, Kannada and Malayalam will not be allowed in public examinations after 2015 (Jayasundara, 2014). Thus, objective of Tamilnadu government was to eliminate all languages except Tamil and English from 2016. He further contends that language is not means of communication for the politician but an instrument for power.

NEP 2020 states that 'there will be a greater flexibility in the three-language formula, and no language will be imposed on any State. The three languages learned by children will be the choices of States, regions, and of course the students themselves, so long as at least two of the three languages are native to India'. In response to notification of NEP 2020, Chief Minister, Tamilnadu said that "Tamil Nadu will never allow centre's three language policy. The three-language policy in the New Education is painful and saddening. The Prime Minister (Narendra Modi) should reconsider the three-language policy," However, Tamilnadu Govt has constituted an expert committee to "advise the Government of Tamil Nadu on the policy response on all thrust areas of the National Education Policy 2020 subject to the state of Tamil Nadu continuing with its two-language policy." It is further stated that Rule 1 (ii) of the Official Languages (Use for Official Purpose of the Union) Rules, 1976, is very explicit and clear. It states that "They [the Rules] shall extend to the whole of India, except the State of Tamil Nadu." (Ramakrishnan, 2020).

NEP 2020 explicitly mentions that 'no language will be imposed on any State' and it has further been re-iterated by the Govt of India. It is pertinent to mention that Tamilnadu Govt of AIIDMK maintains good relations and is in political alliance with Central Govt of BJP. Further, there is no mention of Hindi in NEP 2020 against that of in Official Languages Act, 1963 which triggered an agitation in Tamilnadu. It may perhaps be difficult for political parties to agitate the public at the name of 'Hindi imposition'. Therefore, major political challenge in implementation of three language formula of NEP 2020 is not envisaged.

2.5.3 Other emerging challenges

2.5.3.1 Bilingual teaching for Science and mathematics

NEP 2020 states that '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.' It, further states that medium of instruction

until at least Grade 5, but preferably till Grade 8 and beyond, can also be in local language/regional language in addition to home language/mother tongue. As far as teaching of languages are concerned, mother tongue will be taught in early years while skills in other languages will be developed in Grade 3 and beyond. Therefore, this is possible that student is taught science and mathematics in home language/mother tongue but their medium of instruction is local language/regional language, other than home language/mother tongue.

NEP 2020 states that skill in three languages is to be developed and at least two languages out of these three languages must be native languages. It further states that science and mathematics are to be taught in both home/mother tongue. Most of countries are teaching science and mathematics in elementary education in their mother tongue. However, some countries like Phillipines teaching science and mathematics in English whereas mother tongue is used as medium of instruction for most of other subjects. Teaching science and mathematics in English language in addition to their home language/mother tongue may exert pressure on students particularly of rural areas which may lead to alienation of interest in science and mathematics. Further, students can comprehend the concepts of science and mathematics in English only after they acquire the skill in English language. Therefore, one language, out of three languages, has already been fixed without explicitly mentioning it in NEP 2020.

Kasturirangan, Chief Architect of NEP said learning of the students about science and mathematics will be enhanced if same are taught in their mother tongue. He further added that "We have recommended that later on (higher grades) they will learn science and mathematics in two languages—mother tongue and English. It will give a much better understanding of science and mathematics, than learning only in a foreign language, English," (Outlook, 2020). It is pertinent to mention that arguments that

learning of science and mathematics in mother tongue will provide better understanding of these subjects are well received. But these subjects are still being taught in most of the schools, even in private and govt added schools of rural areas in mother tongue. It is not understood that how the learning of these subjects will be improved if taught in English in addition to mother tongue. Further, learning of English skill is different than native languages due its different phonetics, rule of grammar and code etc. Further, NEP 2020 recognizes that there is currently a learning crisis for foundational literacy and numeracy, as a 'large proportion of students currently in elementary school estimated to be over 5 crore in number - have not attained foundational literacy and numeracy, i.e., the ability to read and comprehend basic text and the ability to carry out basic addition and subtraction with Indian numerals'. They will be required to develop skills in three languages, learn the terminologies and concepts of science and mathematics in home language/mother as well as in English simultaneously. Thus, learning in both languages may only increase the burden on the students of rural area without much tangible benefit.

There may further be confusion in private school also. If leeway is being provided to private school to choose mother tongue or English as medium of instruction and same is not made enforceable by addition of word 'wherever possible'. But science and mathematics are required to be taught in mother tongue in addition to English medium. Therefore, there will be a challenge for implementers of NEP 2020, so that students do not get dis-interested or alienated from learning of science and mathematics due to demand of enhanced efforts.

2.5.3.2 Capacity Building

NEP 2020 states that "Wherever possible, the medium of instruction until at least Grade 5, but preferably till Grade 8 and beyond, will be the home language/mother tongue/local language/regional language". It further states that "teachers will be encouraged to use a bilingual approach, including bilingual teaching-learning materials, with those students whose home language may be different from the medium of instruction." India has recognised 22 languages that have been known as "the 8th Schedule" of the Indian Constitution, along with English as an associate official language. Further, census (2011) indicates that there are 99 languages categorised as "total of other languages". There are 270 identifiable mother tongues, spoken by more than 10000 people each all over country, and 123 mother tongues grouped as scheduled languages and remaining 147 groped as non-scheduled languages. There may not be major challenge in rural areas and small towns, as students supposed to be homogenous in nature as far as their mother tongue is concerned. However, population of big towns particularly metros is cosmopolitan in nature, thus, large amount of heterogeneity from the perspective of mother tongue, being spoken by them is likely to exist in such population. Therefore, implementation of NEP 2020 entails huge capacity building of teachers in multiple languages even if medium of instruction in only 22 regional languages is implemented.

NEP 2020 states that skill in three languages is to be developed and at least two languages out of these three languages must be native languages. NEP further provisions that 'States, especially States from different regions of India, may enter into bilateral agreements to hire teachers in large numbers from each other, to satisfy the three-language formula in their respective States, and also to encourage the study of Indian languages across the country' to facilitate the effective implementation of three language formula. Concept appears good on paper but its implementability raises question. NEP states that states from different regions can hire teachers from each other. But, hiring will lead their dislocation that too in different state of different culture and language. This arrangement will be workable only if there are huge incentive to compensate them. But this may create a discrepancy in pay with similarly placed teachers of home state and cause resentment among them.

Presently, science and mathematics up to secondary school is taught in mother tongue/state language. NEP entails teaching of science and mathematics in mother tongue/home language as well as in English. This will require capacity building of all teachers of elementary education in English language and teachers of science and mathematics of secondary school.

In most of states, teachers are imparting education in single language i.e., mother tongue/regional language since their engagement say more than 10 years. Thus, it will be a huge challenge for implementer of policy to do capacity building of such teachers in multiple languages to enable them to impart education in mother tongue of students particularly in regional languages and teach languages under three language formula. Further, government may also face challenge to overcome cognitive inertia of such teachers of government schools to adopt these radical changes of National Education Policy 2020.

2.5.3.3 Financial Resources

Earlier education policies i.e., Education Policy 1968 and National Policy on education 1986 aimed to spend 6% of GDP on education. However, statistics suggests that expenditure on education by center and states together remained stagnant at 2.8 per cent of GDP during 2015-17 and it increased by meagre 30 basis points during last six years. This expenditure remained stagnated at 3.1 % during 2018-19 and 2019-20 (budget estimates). Thus, expenditure on education hovered around half of targeted expenditure i.e., 6% of GDP. Further, share of education in expenditure on total social services has decreased from 46.1 % to 40.7 % during last six years i.e., 2014-15 to 2019-20 (Kiran, 2020). Singh (1988) contends that present system that evolved over the period favours higher education and professional education. He further states that approximately one-third of the total education expenditure is spent on these two sectors and remaining part is apportioned between elementary education and secondary education.

Research scholars argue that allocation of expenditure on education must be in consonance to economic development (Kim & Hong, 2010). Emphasis for expenditure should be on primary education in early stage of economic development, as main contributor to economy at this stage are primary sectors like agriculture, mining etc. (Kim & Hong, 2010). Empirical study on 80 countries suggests that primary education broadly promotes production of final output, while post-primary education influences on innovation and imitation of technology (Papageorgiou, 2003). Extant literature suggests that there is a positive corelation between education levels and economic growth in India (Kobzev et al., 2018). Several research scholars found that level of primary and secondary education positively impacts the economic growth of India (Self and Grabowski, 2004; Kingdon, 2007). Thus, there is a reason for increasing investment in primary and secondary education which will facilitate to build the human capital and boost the economic growth of country.

Report of MHRD on 'Educational Statistics at Glance' states that there is a shortfall of 9.08 lakh teachers in government elementary schools as on 31.03.2016. Report of

UNESCO Institute of Statistics (UIS) (2015) corroborate these statistics and indicates that India is second in the list among 74 countries facing an acute teacher shortage to meet the current education demand. Further, NEP advocates for investment by Central Government as well as State governments in large numbers of language teachers in all regional languages, particularly mentioned in the Eighth Schedule of the Constitution of India. Thus, Government will require financial resources for hiring of language teachers for implementation of three language formula, translation of material/text in regional languages, printing of textbooks in bilingual, hiring teachers for teaching classical languages like Sanskrit, Pali, Prakrit etc. and foreign languages like German, French etc; and capacity building of existing teachers. There is already scarcity of teachers in primary schools and requirement of teachers for implementation of aforementioned provisions of NEP will require huge financial resources. Thus, arrangement of such a huge financial resource may be a challenge for the government.

2.5.3.4 Shifting/migration of students from one state to another

Many students' shift to other states due to several reasons like transfer of their parents, change of job by their parents etc. Example- shift of students from Tamilnadu to Uttar Pradesh. Thus, students would have learnt subjects in mother language/home language of his earlier place (Ex- Tamil) and might not be having the knowledge of regional language or local language of new place (Ex- Hindi). Further, NEP states that three languages learned by student will be the choices of States, and students. But student will be having the option to choose three languages out of the repertoire of languages of concerned state. NEP provisions that students who wish to alter one or more of the three languages they are studying may do so in Grade 6 or 7. But he may have learnt

three languages different than being taught in new state. Thus, students in such cases will be required to be permitted for change of language (s) even before grade 6 or 7. In such cases, study of students, being regional language/local language of new state as a medium of instruction, may adversely be impacted due to lack of knowledge of regional language or local language of new state. Though NEP provisioned that 'Teachers will be encouraged to use a bilingual approach, including bilingual teaching-learning materials, with those students whose home language may be different from the medium of instruction.' But, in such cases whether deployment of bilingual teachers, so quickly, will be feasible and financially viable. Further, whether there will be deployment of bilingual teachers in large number (22 bilingual teachers for schedule VIII language only) in each school or bilingual teachers will be deployed after student(s) of different home language is admitted. Both options appear to be non-feasible in such cases. Thus, there is challenge for govt to prepare a road map for implementation of this provision of policy and address the problem for transfer cases.

2.5.3.4 Area specific Issues

India is highly diverse country as far as mother tongue/home languages of its inhabitant are concerned. Hence, the issues concerned with medium of instruction in schools are also idiosyncratic to the respective areas and these are embedded in respective context. Rukmini Banerji mentioned in her article about the challenges encountered by Pratham Education Foundation with primary schools of different context and these issues are being briefly discussed in following paras.

During study in Dhanbad, it was found that teachers were well qualified, and textbooks being used for teaching were written in Hindi. Medium of instruction in school was different from home language of children (Bengali and Santhali in instant case) even the teacher was not versed with local language. Hence, teacher was not able to connect/engage with the student. Some states appointed Para (Assistant) teacher who were speaking local language, thus, Para teachers facilitated them to know the things orally in local language. But, they were not able to read in the script of local language, as they were familiar with Devanagari script means "Bengali in Hindi "script (Rao, 2017).

She mentioned another challenge encountered by Pratham, that children of Mumbai slum can navigate through multiple languages, but they are not adept in any of these languages. Therefore, there is no single home language, as envisaged in theoretical framework of policy for education. Strategy needs to be devised to enhance the richness of their environment of multiple language rather than taking away it from them.

In another challenge encountered by Pratham in Kokarajhar District, Assam, she states that students of class do not share common language. Some teachers were able to speak both medium of instruction and language of textbooks whereas some teachers were not able to speak even any of the language being spoken by students of the class.

The National Education Policy assumes that the classroom space is monolingual or bilingual where in fact it is a much more heterogeneous space. Therefore, if there are 4-5 mother tongues/home languages in the same classroom how "a" single medium of instruction will serve the purpose?

Chapter-3

Research Methods and Collection of Data

3.1 Methodology

3.1.1 Designing of questionnaire

This research was designed to:

- To critically examine the multilingualism aspect of National Education Policy 2020,
- To compare National Education Policy 2020 vs old Education Policy on multilingualism aspect,
- To explore the challenges in implementation of multilingualism aspect of National Education Policy 2020 in schools from the various stakeholders of education system
- To suggest the way forward for effective implementation of National Education Policy 2020

Research question related to objectives mentioned at Sl. No. (i) and Sl. No. (ii) are to be addressed on the basis of secondary data viz. National Education Policy 2020, earlier Education Policies- National Policy on Education 1968 and National policy on Education 1986 (Modified in 1992). Whereas research questions that emanates from objective at Sl. No. (iii) entailed to be addressed on primary data. Research question related to last objective will be addressed on the basis of secondary data as well as primary data collected. There are mainly four critical aspects of multilingualism of NEP 2020 in schools-Medium of Instruction, three language aspect, Teaching of science and mathematics in bilingual, teaching of Classical languages and International Languages. First three aspects are mandatory in nature. Whereas fourth aspect - teaching of Classical languages and International Languages is optional for students which they can pursue as optional subjects. Further, there are two important stakeholders of NEP 2020 schools and parents of children in addition to the governments- central and states as far as implementation of NEP 2020 is concerned. Accordingly, two different questionnaires have been designed for parents and schools, as issues concerning to implementation of multilingualism of NEP 2020 for respective stakeholders are different. Both the questionnaires contained - structured as well as unstructured questions. Both have their own advantages. Unstructured questions are open ended questions and have advantage of permitting the respondents to express their opinion/view and attitudes without getting biased by restricting choices to predefined alternatives only (Malhotra, 2006: 86). Therefore, unstructured questions are useful in identification of 'underlying motivations, beliefs and attitudes.'

Parents include the persons whose children either are studying in schools or passed out from schools, as both are aware of the issues related to imparting education in mother tongue/ teaching languages. Questionnaire for parents was originally designed in English. Questionnaire contained two sections: Section I- questions about multilingualism aspect of NEP 2020, Section II- demographics of respondent. Section I and section II of questionnaire contained 7 and 12 questions, respectively. Questionnaire for parents included questions on benefits and challenges in implementation of mandatory aspects of multilingualism of NEP 2002. However, NEP 2020 emphasises on inclusion, equality and equity. Considering the fact that some parents may not be comfortable with English, questionnaire was translated in Hindi, the official language and mother tongue of most of the people in DELHI/ NCR and UP, so that objective of NEP 2020 is not compromised with while examining the challenges in implementation of multilingualism of NEP 2020. The translated Hindi version of questionnaire was got validated by the person having postgraduate degree in Hindi and certificate in English Language, so that intended meaning of questions being asked is conveyed to the respondents and is not different from the original questionnaire.

Questionnaire for school contained two sections: Section I- information about school, Section II- questions about multilingualism aspect of NEP 2020 and demographics of respondent. Section I and section II of questionnaire contained 8 and 15 questions, respectively. Questionnaire of school contained questions on advantages, challenges and suggestions related to all four aspects of multilingualism including teaching of Classical languages and International Languages. Questionnaire for school was more elaborative with intent of capturing all the points related to these aspects of multilingualism.

3.1.2 Data Collection

Convenient sampling was adopted in selection of respondents. Questionnaire for Parents and schools were administered, and data was collected between last week of Jan' 21 and 1st Week of March'21. Population for responding school questionnaire was teachers and principal of schools, located in Delhi/NCR and UP. NEP 2020 is applicable for both Government schools as well private schools. Therefore, efforts have been made to administer questionnaire to principal/ teachers at both government schools and private schools. Further, challenges for implementation of multilingualism in schools of rural area may be different than that of schools in urban area. Thus,

questionnaires were administered to the teachers/principal of both government schools and private schools of rural areas to incorporate their opinions/views. It was observed that teachers at private schools and government schools from rural areas as well as urban areas are well acquainted and comfortable with English language. Hence, translation of English questionnaire in Hindi was not felt necessary. Data was collected from the schools of Delhi/NCR and Kanpur, a tier-II town of UP. Questionnaire was administered to the respondents on their email id.

Questionnaire to the parents was administered in Delhi/NCR and Kanpur, a tier-II town of UP. Google form was created for both -English as well as Hindi version of questionnaire. It was observed during administering the questionnaire that respondents, meant for Hindi version of questionnaire, are not comfortable in typing on mobile. Hence, physical questionnaires were administered to enable them to fill the questionnaire comfortably.

Total 73 questionnaire were received from the parent respondents. After going through the questionnaires, it was found that some respondents mentioned about the provisions of NEP 2020 without mentioning their opinions on the question. Whereas some mentioned 'yes', 'no' or 'not applicable' against most of the questions. Total 12 such type of questionnaires was found, and these questionnaires were considered as incomplete and improper responses, to avoid the confounding of findings. Total 61 questionnaires were found complete and were considered for analysis.

Questionnaire to respondent schools were sent/received through email. Questionnaire were administered in Delhi/NCR and Kanpur, District of UP. Total 22 responses were received from principals/teachers at schools. Out of 22 responses, most of the questions except profile of respondent and information about school from one respondent were unanswered. Hence, this response was not considered for analysis. Further, 10

responses of teachers of a school were same as that of Principal of school, hence these responses were not considered for analysis to avoid biases and false influence on the findings. Therefore, 11 responses from principals/teachers were considered for analysis.

Chapter-IV

Analysis and Discussion

The research questions related to respective objectives were to be addressed on the basis of primary data, secondary data and combination of both. The research questions are accordingly being discussed as under:

4.1 Analysis

Research question related to objectives mentioned at Sl. No. (i) and Sl. No. (ii) are to be addressed on the basis of secondary data viz. National Education Policy 2020, earlier Education Policies- National Policy on Education 1968 and National policy on Education 1986 (Modified in 1992). Whereas research questions that emanates from objective at Sl. No. (iii) entailed to be addressed on primary data. Research question related to last objective will be addressed on the basis of secondary data as well as primary data collected.

There are two stakeholders- Parents and Schools to address the research questions related to objective at Sl. No. (iii). Accordingly, primary data was collected from both the stakeholders and the responses received from both the stakeholders are separately being analysed.

4.2 Research Question: Exploring parents' perception on implementation of multilingualism aspect of National Education Policy 2020?

4.2.1 Analysis of responses related to parents

4.2.1.1 Descriptive statistics analysis

Descriptive statistics of parent respondent profile was tabulated and same is annexed at Table - 1. Descriptive statistics analysis of respondent profile indicates that 90% of the respondents are male while 10% are female respondents. 60% respondents were of the age above 50 years while 30% and 10% respondents were in the age group of 35-50 and 25-35 years. Since parent respondents were targeted, respondents less than 25 years age group were less likely. Responses were distributed across the board as far as qualification of respondents are concerned. 98% of respondents were residing in urban areas while 2% of respondents were residing in rural areas. However, many of the respondents of Kanpur, though residing in urban area, but were having strong connection from rural area. As far as type of employment is concerned, 85% respondents were employed in govt sector and remaining 15% in private sector. Respondents are distributed across the continuum of Annual Income, though tilted towards 'Above 10 Lakhs' income group. Statistics also indicate that large proportion of children of respondent's parents were studying/studied in private schools which is in line to general trend. Since the convenient sampling was adopted for administering the questionnaire, tilt in favour of researcher's profile is exhibited in respondent's profile.

4.2.1.2 Analysis of responses

Total 61 valid and complete responses were received. Out of these 61 responses 15 responses were physical responses of Hindi version. All these 25 responses were translated back into English for analysis purpose. The translation of these 25 responses were got validated by the person who translated the English version of questionnaire in Hindi. The responses received through, E-mail, Google form and translated responses were collated in an Excel sheet against respective research question for analysis.

I gone through the 488 pages (61 x 8 pages) of responses received from 61 respondents manually. Themes were identified from the response of each respondent for respective research question and these themes were coded and listed against each research question. Common themes had also emerged during coding process, hence, frequency for each theme was counted and maintained separately along with the theme. Large number of themes like emerged from the responses of respondents for each research question. Hence, similar themes of first order were merged into second order themes and respective 2nd order themes were named appropriately. Accordingly, 2nd order themes, similar in nature, were again grouped in 3rd order themes to have some meaningful analysis. Grouping of themes were independently reviewed by an undergraduate student having fair idea of NEP 2020. Differences wherever found were discussed and sorted out. Clubbing of lower order themes into higher order themes facilitated to obtain abstraction and thus to draw some meaningful conclusion from the responses of respondents.

Brief analysis of the responses for each research question is given as under:

i. Awareness about the NEP 2020

Out of 61 responses, 58 respondents- means 95% respondents mentioned that they are aware about NEP 2020.

ii. Home language/mother tongue/regional language as medium of instruction

Statistics indicate that 95% of respondents viewed provision of adoption of home language/mother tongue as medium of instruction advantageous while 5% opined that this will not be of advantage to the children.

Themes emancipated from the responses for above mentioned research question are mentioned and grouped in higher order themes in Table- 2. Total eight 2nd order themes

emerged from responses which were clubbed in 7 3rd order themes. Prominent 3rd order themes that emerged from the responses are Learning and comprehension; Cognitive and social development; Comfort of parents.

Analysis of responses indicate that 77% respondents feel that implementation of policy will be challenging whereas 23 % respondents opine that there will be no challenges in implementation of this provision.

Analysis of responses received against research question related to challenges in implementation of home language/mother tongue/regional language as medium of instruction reflected several themes which were grouped into 18 2nd order themes and 9 3rd order themes. These themes are indicated in Table-3 and frequency of these themes is also indicated therein. Some prominent themes, decided on the basis of frequency of themes, are Development of curriculum and availability of learning material/books in home language/mother tongue; Hiring and capacity building of teachers; and Social Identity and Language power of English.

iii. Teaching of three languages out of which two should be native languages

Analysis of responses suggest that 88 % respondents opined that adoption of three language formula is advantageous for children while 11 % respondents mentioned that the provision will not offer advantage to the children and remaining 1% did not offer any comment.

Analysis of responses received against research question under reference thrown several themes which were grouped in to 10 2nd order themes and 5 3rd order themes. Hierarchy of themes is indicated in Table-4. Some prominent 3rd order themes that emerged are Linguistic and personality development of student; Socio-political factor; and Enhancement in Learning.

Analysis also suggests that 82% of respondents are of the opinion that there will be the challenges in implementation of this provision whereas 13% feel that there will not be any challenge in implementation and remaining 5 % were non-committal.

Responses received from the respondents against research question to explore challenges for implementation of three language formula were analysed and total 13 2nd order theme emerged from analysis. These 13 2nd order themes were further collapsed into 9 3rd order themes for the purpose of meaningful interpretation and same are tabulated in Table- 5 along with their frequency. Prominent 3rd order themes that emerged are Availability of teachers and their capacity building; Burden on student; and Translation of content and availability of material/textbooks.

iv. Bilingual teaching of Science and Mathematics

Statistics of responses indicate that 95% respondents find this provision advantageous whereas 5% feel that this provision do not offer advantage.

Analysis of responses against above mentioned research question thrown several themes which were clubbed into 10 second order themes and subsequently grouped into 7 3rd order themes. The tree structure of the themes is reflected into Table- 6. Prominent 3rd order themes, emerged from analysis, are Enhancement in learning, comprehension and applied aspects; Enhanced cognitive capabilities; and Enhanced global connectedness.

As far as challenges are concerned, 74% respondents state that there will be challenges in implementation whereas 23 % respondents feel that there is no challenge in implementation of this provision and 3% were not sure about the challenges.

Responses received from the respondents against the research question under reference were analysed. The analysis of responses thrown several themes which were grouped into 10 2nd order themes and same further collapsed into 6 3rd order themes. The hierarchy of themes is indicated in Table-7. Prominent 3rd order themes, emerged from analysis of responses, are Translation of content and availability of material in bilingual; Availability of teachers and their capacity building; and Difficulty in learning and burden on child.

v. Parent's preference for education of their children in private school

Parents were asked a question 'Does your child study in private school? '. In response, 77 % respondents said that their children are studying/studied in private school. Analysis of responses indicate towards several reasons of getting their children educated in private schools. Those themes were grouped in 2nd order and subsequently in 3rd order themes. These themes are tabulated in Table-8. Prominent 3rd order themes that appeared are Better personality development of child; Better management and conducive environment; and Better education and learning.

vi. Reduction in gap of standard between private and Govt school and improvement in equity and inclusion in society

Respondents was asked whether implementation of multilingualism aspect of NEP 2020 will reduce gap in standard of education between Govt School and Private School; and improve equity and inclusion in society? In response, 51 % respondents feel that implementation of multilingualism aspect of NEP 2020 will reduce the gap in standard of education between govt and private school and improve the inclusion and equity in society whereas 30 % respondents said 'No'. 11 % respondents said that inclusion and equity in society will be improved 'Up to an extent' whereas remaining 8 % respondents were of the opinion that inclusion and equity in society will not be improved 'Necessarily' as it depends upon host of other factors also.

Some respondents stated that inclusion and equity in society can be improved due to uniformity (equity) in education through multilingualism, more confidence among students and better understanding of subject and concepts.

vii. Parent's perception about education of their children in mother tongue

Analysis of statistics indicate that 54 % respondents want to get their children educated in mother instruction whereas 31 % do not want to get their children educated in mother tongue. 13% respondents did not answer this question directly and mentioned 'Not applicable' in their response whereas 2 % respondents said, 'Not Always'.

Similar to the analysis of the responses of other questions, themes emerged from the responses were clubbed into 2nd order and 3rd order themes. The hierarchy of themes is indicated in Table-9. Prominent 3rd order themes that emerged from the responses are Social identity and power of language; Acquisition of good higher education due to English; and Transferability of employees.

viii. Impact of implementation of multilingualism aspect of NEP 2020 on requirement of Tuition

Parents were asked the question 'Does your child study tuition?'. In response, 30% respondents mentioned that their children study tuition whereas 67 % respondents replied that their children do not go for tuition and remaining 3 % mentioned 'Not Applicable'.

As far as impact of multilingualism aspect of NEP 2020 on tuition is concerned, themes were clubbed into 2nd order and 3rd order themes. The hierarchy of themes is indicated in Table-10. Main themes that emerged from the responses are Better Comprehension of students, Better Comprehension of parents; and Enhancement of cognitive ability of students will reduce the requirement of tuition.

Respondents, who feel that implementation of multilingualism aspect of NEP 2020 will enhance the requirement of Tuition, mentioned the main reason as Teaching of maths and science in mother tongue may affect understanding of concepts; Teaching of Multiple languages impacts education; and difficulty for the parents to guide their children due to changed. requirements

4.2.2 Discussion on responses related to parents

Major aspects of Multilingualism of NEP 2020 analysed in para 4.1.1.2 and same are being discussed under respective aspect.

i. Awareness about NEP 2020

Government and other educational bodies launched a massive drive about awareness of NEP 2020 through webinars and lecture series. Statistics of responses indicate that Government has been successful to spread awareness about NEP 2020 as 95 % of the respondents are aware of the policy. Effective communication of policy to the stakeholders is first and one of the important aspects of policy implementation and government has been able to communicate the provisions of policy to its stakeholders.

ii. Home language/mother tongue/regional language as medium of instruction

Analysis suggests that 95% of respondents viewed this provision advantageous. However, 77% respondents also feel that there will be challenges in implementation of this provision. Respondents also indicate the areas of challenges which have been identified in form of themes. Analysis suggest that Learning and comprehension of children will be enhanced as young minds can easily and quickly learn the thing in their home language/mother tongue and better comprehension of things is also facilitated. The finding is in line with the extant literature and past research on the topic. Respondent no. 2 states that 'The language removes the barrier, and the use of mother tongue addresses the barrier in learning. 'Respondents further perceive that provision may also facilitate the Cognitive and social development of children due to several reasons like they will be able to express themselves better in mother tongue, correlate the learning with their surroundings and will be comfortable in their own language. One interesting opinion i.e. Comfort of Parents also emerged, analysis suggests that teaching in mother tongue will facilitate participation of parents in child's learning and monitoring, as parents of children particularly belonging to Rural area/remote area or unprivileged group are not comfortable in English. Further, there participation in child's learning and monitoring may also reduce the necessity of tuition for their children. Respondent no. 25 appreciates this provision states that 'The home language may be beneficial at initial stage as child may correlate well what he/she is reading with things around him/her, and parents may intervene in better way and may monitor the progress of the child in a better way.'

Respondents also opined that there are several challenges also for its effective implementation. Most important challenge will be to develop a good curriculum and making the material and textbooks available in-home languages/ mother tongues/regional languages, as there are 22 Regional languages and 320 mother tongues in country. Respondent no. 27 expresses his concern in terms of 'The content mostly available in English language need to be translated and made easy to read and learn.' the Second most important challenge will be availability of trained teachers in mother tongues and capacity building of the existing teachers. Respondents also feel that one of the biggest challenges will be to fight with Social Identity and Language power, presently being enjoyed by English language. Again, this finding is similar to earlier findings and several research scholars like Mohanty (2006, 2010) prominently mentioned in their research. Respondent no. 28 states that 'First employability of youth

proficient in non-English languages should be increased and then implement such a policy in school.' Another major area of concern that has been exhibited by the respondents is that children may face difficulty when moving to other states particularly going abroad where courses will be in English. Hence, switching cost to higher education is likely to be high.

iii. Teaching of three languages out of which two languages will be native languages

Statistics of responses indicate that 88% respondents consider teaching of three languages as an advantageous provision. However, 82% respondents also caution about the challenges for effective implementation of this provision vis -a vis 11% respondents who feel that there are no challenges in implementation.

Most important advantage of this provision will be Linguistic and personality development of student due to learning of multiple languages, Enhancement in versatility, boosting of self-confidence etc. Respondent no. 59 states that 'Knowledge of more than one language enhances the confidence along with intellectual development.' Further, it will also improve Socio-political factor due to National integration, social harmony and national pride. Respondent no. 47 opines that 'Child will become multilingual which will help him in future to adjust in different societies.' Analysis of responses also indicate that implementation will also promote equity in society as emphasis on native languages will be boon for students from rural area/remote area and belonging to underprivileged section of society due to their comfort in native languages. Further, it will also help them to get skill-based training and get the employment due to their knowledge of multiple native languages. Interesting theme that emerged is that implementation of this provision will boost employment opportunities in country. Analysis explored several challenges in implementation of this provision. The most prominent challenge will be Availability of teachers and their capacity building for teaching native languages which are not the mother tongue or home language of the state. Provision states that selection of the languages will be choice of students, states. There is apprehension that choice of student may get subdued and choice of language by school may be a deciding factor for teaching a language to the student which he/she may not be comfortable with. Respondent no. 43 states that 'The 3-language formula also clubbed mother tongue and regional language as medium of instruction for early years- makes it easy for states to impose regional language on the child regardless of mother tongue thus creating more problems.' Second most important challenge may be the Translation of content and availability of material/textbooks for learning of native languages. Respondent no. 51 exhibits his concern about the inter-coordination and states that 'Implementation of three language formula at once will lead to difficulty in establishing the coordination among them. And they will not be able to understand these languages at their level.' Respondents also feel teaching of third language may be burdensome on the students due to demand of extra efforts from student, difficulty in identification of two native languages, movement to other states during study may entail learning of other languages ate new place. Respondent no. 57 expresses his concern and states that 'As a parent, I think that this increases the pressure on children if they are involved in to learn more and more languages.'

iv. Bilingual teaching of Science and Mathematics

Statistics of responses indicate that 95% respondents find this provision advantageous but at the same time 74 % of respondents also feel that there will be challenges in implementation of this provision.

Respondents in big way opine that teaching of science and maths in bilingual will enhance learning, comprehension, and applied aspects of both the subjects due to reasons like easy comprehension of concepts, easy to correlate with everyday happening. Further, implementation of this provision will also enhance cognitive capabilities of students due to the factors like development of analytical ability, Enhancement in creativity and better thinking. Respondent no. 48 is overwhelmed by this provision and states that 'The efforts of children will not get lost in mental translation. With this, real knowledge impartation will take place.' Analysis also suggest that it will enhance global connectedness as students will have sufficient knowledge of English language also. This also indicates that social identity and power of English language is well recognise by the parents.

Analysis suggests that Translation of content and availability of material in bilingual will be the biggest challenge in implementation of this provision. Respondent no. 26 very candidly expressed his thoughts and states that 'Language fanatics have the habit of translating every English word to their language making it difficult for anyone to understand and relate. For example, words like addition, subtraction, velocity, acceleration, etc. should be in told as in English language and not translated to local languages. This will make studying very difficult as the child goes to higher classes. In Tamil, there are Tamil translations of most of the mathematical and scientific words which are taught in Tamil medium schools. The challenge here is to ensure that the subject matter in local language should be designed taking into account the growth path of the child in higher secondary, graduate level where the medium of instruction and the scientific and mathematical concepts would be English.' Second most important challenge is Availability of teachers and their capacity building. Respondent no. 42 exhibits his curiosity that 'Finding teacher will be the bigger challenge. Sometime

school may require two teachers. Also what will be language in class teaching? Whether there will be two classes? Or students will be taught in one language and another language will be for self-study, if so it will distort their time management and add stress?'. Another challenge is that bilingual teaching of both subjects may make learning difficulty and add burden on child due to the reasons like requirement of Knowledge of English, Difficult to grasp due to non-uniform terminology, Encounter difficulties in non-comprehending difficult vocabulary.

v. Parent's preference for education of their children in private school

Analysis indicates that 77 % parents educate children in private school. This statistic is triangulated by descriptive statistics wherein 77% respondents said that their first child studying/studied in private school.

Parent's credit Better personality development of child comprising Extra-curricular activities and Development of soft skills in student; Better management and conducive environment factor mainly comprising Better discipline, Better Hygiene, and Conduciveness ambience for study, for getting their children educated in private school; and availability of better teachers with higher soft skill. Respondent No. 10 states that 'Tuition is linked to understanding of the subject and concepts. If bi-lingual or multilingual teaching can improve understanding among children, requirement of tuition will definitely go down. 'Respondent No. 54 view managerial aspects as a key a factor for preference of private school over govt school and states that 'ownership of an individual and their autonomy enables the private schools to change in approach and system as per requirement which leads them to success. While it is not possible in govt schools.' Interestingly being English medium school is also one of the factor to prefer private schools over government schools by parents for study of their children. Quality

of education is good. Extracurricular activities helps build personality. Proficiency in English language which essential for child's career.'

vi. Reduction in gap of standard between private and Govt school and improvement in equity and inclusion in society

Analysis indicates that 51 % respondents feel that provision of multilingualism aspect of NEP 2020 will reduce the gap between private schools and govt schools and will promote inclusion and equity in society whereas 30 % state that these provisions would not improve equity and inclusion in society and remaining respondents mentioned either 'Up to an extent' or 'Not Necessarily'. It indicates that majority is of the opinion that multilingualism will improve equity and inclusion in society.

Analysis suggests that uniformity (equity) in education through multilingualism, more confidence among students and better understanding of subject and concepts are prime factors responsible for improvement of equity and inclusion in society. However, many respondents also feel that only provisions of multilingualism will not improve equity and inclusion in society rather it depends upon host of other factors. Respondent no. 8 states that 'Only multilingualism would not be sufficient. To bridge the gap, quality of teachers, infrastructure etc play more vital role.' Respondent no. 10 emphasises upon overall development of children and states that 'This may lead to reduction in the gap in knowledge acquired by children studying in private and Government schools. However, in the larger context children need a holistic education which also includes education outside of books, where multilingualism does not matter much. This is an area where private schools do far better than Government schools. That should be the focus of education for all round development of children.' Respondent No. 35 brings out very important dimension of kind of population is taught by private and govt. Schools and states that 'This will reduce a gap but not to that much extent because in

government schools, most of the children are from the families who are even below the poverty line wherein the parents/family is not very clear about the importance of education.'

vii. Parent's perception about education of their children in mother tongue

Analysis of responses suggests that 54 % respondents vis-à-vis 31 % respondents want to get their children educated in mother instruction while remaining either mentioned 'Not applicable' or 'Not Always'.

Most important reason that motivates parents for imparting of education to their children in English are Social identity and power of language comprising Employability and global competitiveness, Perceived social identity of English and universal acceptability of English. Second most important 3rd order theme is Acquisition of good higher education as English language skill facilitates acquire higher education from good institutes including abroad. Third important factor is Transferability of employees as English Medium Instruction facilitates them to maintain continuity in education without much difficulty. Respondent No. 44 states that 'all over higher studies literature is universally available in English for all kind of studies in world, including data in internet. Lack of command on that language will hamper in further studies.' Respondent No. 50 arguing for education in mother tongue states that 'Children are able to develop their understanding early. They can learn early by correlating their experiences with their environment.'

viii. Impact of implementation of multilingualism aspect of NEP 2020 on requirement of Tuition

Analysis of responses indicate that children of 30% respondents study tuition vis-à-vis children of 67 % respondents who do not go for tuition and remaining 3 % mentioned 'Not Applicable'.

Respondents, who said that implementation of provisions of multilingualism will reduce the requirement of tuition, contend that Better comprehension of subject by students in mother tongue, Better Parents comprehension due to their comfort in mother tongue will reduce the requirement of tuition. Respondent No. 14 argue that 'Tuition is linked to understanding of the subject and concepts. If bi-lingual or multilingual teaching can improve understanding among children, requirement of tuition will definitely go down.' Respondent no. 25 contend that parents ability to intervene due to teaching in mother tongue will reduce the requirement of tuition and states that 'The parents may able to intervene in better way and may monitor the progress of the child in a better way.' Respondents also mention that scarcity of teachers due to teaching in mother tongue and language teachers will automatically reduce the engagement of tuttor.

Respondents argue that provisions of multilingualism will increase the requirement of tuition due to Teaching of maths and science in mother tongue may affect understanding of concepts. Respondent No. 16 states that 'Teaching of maths and science in mother tongue will create additional burden on child and will adversely affect imparting and understanding of concepts.' Respondent no. 33 argue that implementation of multilingualism will not have impact on requirement of tuition and states that 'Tuition problem is due to the gap between teaching and exam baselines including entrance tests. Introducing bilingual teaching may not eliminate tuition.'

4.2.3 Sensitivity Analysis of responses related to parents

Sensitivity analysis has been applied on the data of parent respondents using word cloud. Large data set enables me to employ word cloud technique for text analysis. A common tool used for visualising the data now a days is word cloud tool. Words with highest frequency possess largest font and are in centre of cloud, thus these words are Research scholars use eye tracking methods to examine the influence of font size and location of word in word cloud on the affinity of word. It was found that larger and more centralised word in word cloud drawn more attraction of the user. most important word (Zhang, Qu, and Wang; 2011).

Tableau BI software Tool was used for text analysis using word cloud. Data in excel file was delimited and sentence was broken in words and each word was stored in separate column. This excel file was save as Text file which was again converted into pivot table. The verbs, preposition and irrelevant word were excluded from the analysis. Thus, word cloud was generated for six questions for analysis of data received from the respondents. Word cloud so generated for advantage and challenges of use of mother tongue as a medium of instruction, bilingual teaching of science and maths, and teaching of three languages and these images are placed as Fig 1 to Fig 6 respectively.

Word Cloud of advantages of using mother tongue/home langue as a medium of instruction is depicted in Fig 1. It indicates that mother tongue, language and children are most important words of the word cloud which is very obvious. Further, learning, understanding (understand), English, better, grasp, parents are second most important words. Identification of themes from the responses indicates that Learning and Comprehension was the most important higher order themes which is related to understanding, learning and grasp words reflected as important words in word cloud.

Thus, word cloud text analysis corroborates the identification of important themes from parents' responses. Comfort of parents is also an important theme identified from analysis of responses and word cloud also suggests that parents is an important word.



Figure 1: Advantages of using mother tongue/home langue as a medium of instruction

Word cloud depicted in Fig 2 is generated from the responses obtained against the research question related to challenges in implementation of provision for using mother tongue/home language as a medium of instruction. Most important words of word cloud under discussion are challenge, teachers (teaching), English in addition to language, mother (mother tongue). Identification of themes discerns the Hiring and Capacity Building of Teachers as a most prominent theme and second most important theme was Social Identity and Language Power of English. Thus, word cloud suggests that there will be challenges in implementation of this provision. Further, if word teachers is related with other important words mother, tongue, home, it can be inferred that capacity building in mother tongue/home language is a major challenge. Prominence of

English also indicates towards its power and identity. Thus, inference from word cloud is in line with identified themes through manual text analysis.

lack study concern resist nature biggest grass institution /abroad reading boards resources difficult communicate where nepknowledge acquisition states human prefer learn transferred disadvantage state quality regionallearning upgradation subjects OCal 2020 challenging education material kids spread implementation mother medium rural curriculum agree languages class teachers schools language english challenge books tonaue challenges development home school teaching face implemented hindimajor children parents implement grade employment private better requirement provision policy achieved representing government govt child india studies literaturestaff achieved academic/ studied world educational would changes level training science population craze suffer well higher change

Figure 2: Challenges of using mother tongue/home language as a medium of instruction

Word cloud was generated from the responses of research question related to advantages of Bilingual teaching of science and mathematics and same is depicted in Fig 3. Important words of word cloud are better, understand, children, help, concepts, subjects, science, maths, easier, learning and English. Most prominent themes discerned through manual text analysis are Enhancement in learning, comprehension and applied aspects, Enhanced cognitive capabilities. Inference through the linkages of important words of word cloud can be drawn that bilingual teaching of science and maths subjects can help in better understanding of concepts which supports the identified prominent theme. books access benefit cam change india teach classes teaching acquisition child research advantages benefitied analytical burden global most faster learn assimilation provision concept education thinking scientificable competition tongue higher feel good subjects children comprehend create helplocal Science basics concepts better language understand students languages mathematics understanding relate Subject rurale asily english develop terms learning easy maths easier advantage generation develop terms learning easy maths easier advantage generation barriercare agreed mother verystudent capabilities appreciation difficult use

Figure 3: Advantages of Bilingual teaching of science and mathematics

Word cloud for challenges of Bilingual teaching of science and mathematics is depicted in Fig. 4. Important words of the word clous are challenge, teachers, availability, home, tongue, English, teaching, knowledge, both, mother, translation, material, science, books and higher. Prominent themes discerned through manual text analysis were Translation of content and availability of material in bilingual and Availability of teachers and their capacity building in bilingual. Firstly, word cloud indicates that there are challenges in implementation of this provision. Further, inference from the important words of word cloud can be drawn that availability of teachers in English and mother tongue/home language; and availability of books, translation of material in both languages (bilingual) are major challenges which is in line with manual text analysis of responses.



Figure 4: Challenges of Bilingual teaching of science and mathematics

Word cloud generated from the responses for advantages of teaching of three languages is depicted in Fig. 5. Important words of word cloud are language (s), children (child), students, learn (learning), better, good, more, states, India, Hindi, provision. The prominent themes identified from the manual text analysis were Linguistic and personality development of student and Socio-political factor (National integration, national pride). Inference can be drawn from the perceived linkages between the important words that this provision will help in better learning of languages (linguistic development) and will improve the bond between states and India (national integration). Thus, word cloud broadly corroborates the earlier findings of manual text analysis.

choice parent subject burden enhance initiative linguistic future ^{parents} country promote student mportance easy problem able multiple india native advantage easily important confidence versatile 2020 states 6th across three-language education development earn childhelpmch ren hindi provision state tonquebetter second e opportunity learning knowledge Р englishunderstanding mother ^{concepts}students^{young} ase think different morelocal implementation formula benefit advantages beneficial common boon ability indian non-hindiculture subjects teaching increasemuch speaking three integration national sufficient rural diversity optional regions veryteachers adapt regional primary cultural studies aware OWN aspects provide most early

Figure 5: Advantages of teaching of three languages

Word cloud generated from the responses received against research question related to challenges in teaching of three languages out of which two will be native languages is shown in Fig. 6. Important words of the word cloud under discussion are Language(s), Teachers, teaching, challenge, availability, difficult, English, education, curriculum, implementation, Hindi, states, good and tongue. Prominent themes identified through annual text analysis are Availability of teachers and their capacity building; and Translation of content and availability of material/textbooks (formulation of curriculum). Perceived linkages between important words also indicate that availability of good teachers of languages is major challenge. Further, formulation of curriculum in native languages is also a challenge.

know native central indiaprovision need speaking anticipated three government attitude understand subject quality formula choice knowledge students good tongue coordination saffronisation 2020 more educationcurriculum teach locald aids learn teaching availability increase anguage ard available languages books english implementation different mother answering reauire child people childrenstate likelearninghindistateskids problem implement schools taught help exampolicy bear biggest subjects burden financial resources advantage best acquisition backwards govt better social most huge

Figure 6: Challenges of teaching of three languages

Interestingly, English word is prominent in all word cloud which indicate the social identity and power of English language.

4.3 Research question: What is the opinion of the schools on implementation of multilingualism aspect of National Education Policy 2020?

4.3.1 Analysis of responses related to schools

4.3.1.1 Descriptive statistics analysis

I have gone through the 77 pages (11 x 7 pages) of responses received from 11 respondents manually. Descriptive statistics of Information about School and respondent demographic details have been analysed and same are tabulated in Table-13. The descriptive statistics of school information suggests that almost equal responses are received from Schools located in Rural Area (45%) and Urban Area (55%); Govt Schools (55%) and Private schools (45%); and Primary Schools (45%) and Both (Secondary schools and primary schools) (55%). It is pertinent to mention here that responses received are from Private Schools and Govt Schools located in Urban area; and Private Schools and Govt Schools located in Rural area. Responses are distributed over the entire continuum of strength of schools (measured in terms of no. of students). Further, 64 % of responses are from Hindi Medium schools whereas 27 % responses are from English medium schools and 9% responses are from the schools teaching in both -Hindi & English Medium. Representation of girls in schools represented in statistics is lying between 10%-20% range to above 40 % with 60% schools having girl's representation above 40% while one schools is Boys school. Therefore, it can be inferred from descriptive statistics of school's information that respondent schools are representative of population of schools of Delhi/NCR and UP geographical area.

As far as descriptive statistics of respondents' demographic profile is concerned, 55% respondents are Female while remaining 45 % are Male. Age of respondents vary between 25-35 years, 35-50 and above 50 years age group with 45% respondents lying in 35-50 years age bracket (Table-14). Experience of the respondents lying between minimum 9 years and maximum 33 years with mean value of 17.5 years. Thus, respondents are experienced enough to answer the questions as they are well versed with the education system.

4.3.1.2 Analysis of responses

The analysis of results and its discussion is being done under respective head:

i. Awareness about the Education policy

Analysis of responses indicate that all respondents -100% are aware about the NEP 2020.

ii. Home language/mother tongue/regional language as medium of instruction

Analysis suggests that 100% respondents find this provision of imparting education in mother tongue/home langue advantageous. The themes emerged from the analysis of responses are merged into higher order themes- 2nd order and 3rd order themes. Structure of themes for advantages of imparting education in Home language are mentioned in Table- 15. Prominent 3rd order themes are Improved comprehension and Learning; Enhanced Cognitive ability; and Enhanced parental participation.

Response of the schools was also sought to gauge their responses about the impact of teaching in Home language/mother instruction on dropout rate. 91% of the respondents stated that imparting education in Home language/mother instruction will reduce dropout rate of children from schools whereas 9% respondents said there will not be any impact of this provision on dropout rate.

In response to the question 'Would your school voluntarily adopt mother tongue/home language/ regional language as a medium of instruction? '100% respondents responded positively- mentioned 'Yes'. All respondents opine that there are challenges in implementation of this provision and given their suggestions for effective implementation of this provision. Themes were collapsed in 2nd order themes and 3rd order themes for challenges and suggestion for effective implementation of provision under reference and same are mentioned in Table-16 and Table-17, respectively. Prominent 3rd order themes for challenges in implementation of this provision are Availability and Capacity Building of Teachers; Background diversity of students; and Change in mindset. While key 3rd order themes for effective implementation of this provision are Activity based teaching; Hiring and capacity building of teachers and Use of Technological aids for teaching in home language/mother tongue.

iii. Impact of teaching in mother tongue on dropout rate

Respondents in response to question whether use of mother tongue as an instruction will reduce dropout rate. All respondents except one said that teaching in mother tongue will reduce the dropout rate. Reasons mentioned by the respondents in support of their answer are mentioned in Table- 18.

iv. Teaching of science and mathematics in bilingual

All the respondents view teaching of science and mathematics in bilingual as an advantageous provision of NEP 2020. However, they also feel that there will be challenges in implementation of this provision and given their suggestions for its effective implementation.

v. Teaching of Three Languages

All the respondent except one respondent find teaching of three languages out of which two languages should be native languages provision of NEP 2020 advantageous.

Majority of respondents – 73% respondents feel that there will be challenges in implementation of this provision while 18% do not see any challenge in implementation of this provision and one respondent did not offer any comment.

vi. Teaching of classical and International Languages

All the respondents find this provision advantageous whereas all the respondents except one feel that implementation of this provision will be challenging, and they have also offered the suggestions.

4.3.2 Discussion on responses related to schools

i. Awareness about the Education policy

Statistics suggest that 100% respondents are aware about NEP 2020. It indicates that Govt has been able to communicate and spread awareness into all areas as 50% respondent schools are from rural area and some are from remote villages. Teachers are most important stakeholders and success of implementation policy depends on these stakeholders. This also indicates that awareness programmes of Govt reached to the stakeholders of rural and remote areas also.

ii. Home language/mother tongue/regional language as medium of instruction

All the respondents find this provision advantageous. It is pertinent to mention there are three respondents which are private schools with English as a medium of instruction and their opinion about the provision facilitate the effective implementation. Themes emerged from the analysis of responses and their grouping in higher order themes are mentioned in Table-15. Most important 3rd order themes are Improved comprehension and Learning comprising better understanding of concepts in mother tongue and easy and quick learning of concepts; Enhanced Cognitive ability comprises boost of selfconfidence and long retention in children; and Enhanced parental participation. Respondent No. 6 opine that 'Learning in mother tongue will improve faster learning and long retention in children. Moreover, it will enhance that parental participation in child's learning and boost his/her self-confidence.' However, Respondent no. 7 also expresses his concern while appreciating the provision and states that 'According to me, learning concepts in mother tongue for children who have no access to English is easier and hence the same should be provided to them irrespective of the state where they reside. English as the medium of instruction can be provided at higher stages of learning.'

All the respondents except one respondent in response to adoption to mother tongue teaching agreed to voluntarily adopt to mother tongue instruction. Interestingly, all three private schools who are imparting education in English medium agreed to voluntarily adopt to mother tongue instruction. This is a pleasant surprise because private schools were exhibiting their supremacy over mother tongue medium instruction school and charging exorbitant fee from parents and also a positive signal for policy implementers.

Respondents concede about the challenges in implementation and suggest the ways to address those challenges for effective implementation. Themes regarding challenges and suggestions to address these challenges along with their grouping into higher order themes are mentioned in Table- 16 & Table-17. Prominent 3rd order themes are Availability and Capacity Building of Teachers for teaching in mother tongue; Background diversity of students which may be due to cultural diversity or diversity in other background; and Change in mindset due to language power of English. Respondent No. 8 mentions challenges very candidly and states that 'Changing the mindsets, reimaging and adopting pedagogical changes, training educators, raising the bars for teachers, etc.' Respondent No. 2 consider background diversity of students a major challenge and states that 'In case there is only one or two students from different background, it becomes difficult for teachers.'

Respondents suggested that Activity based teaching; Hiring and capacity building of teachers and Use of Technological aids for teaching in home language/mother tongue may address the challenges up to an extent. Respondent No. 2 while emphasizing upon activity-based teaching suggests that 'At primary level, lots of activities, object based or practical teaching will help students to correlate with their own language.' Respondent No. 6 suggests that 'Mother tongue along with English should go hand in hand.'

iii. Impact of teaching in mother tongue on dropout rate

Respondents were asked 'Do you think imparting of education in mother tongue/home language would reduce dropout rate in primary schools?'. In response all respondents except one stated that teaching in mother tongue/home language will reduce the dropout rate of children from schools. The reasons, they stated in support of their answer were consolidate and enlisted in Table-18. Themes of these reasons were further clubbed in 2nd order themes for better comprehension of the issue. Reasons for helping to teach in mother tongue to reduce dropout rate are better comprehension of the subject, better cognition and comfort of students and parents in mother tongue. Respondent No. 7 states that 'Yes because children who have to learn concepts in mother tongue would find it easier to grasp the contents with better understanding and will find learning fun and interesting as they would be able to think in the language they speak.' Better comprehension creates interest in subject, and they can think properly in their own language which facilitates to reduce the dropout rate. Thus, interest and fun in the subject due to teaching in mother instruction mediates the relationship between comprehension of the subject and reduction in dropout rate.

One respondent argued that imparting education in mother tongue will not reduce the dropout rate as students are mainly leaving schools due to financial crisis at home. Respondent No. 9 very emphatically states that 'I do not think because of language dropout rate happens there are many more circumstances which leads to dropout. That can happen due to financial crises at home. Language is not the reason. As children are very flexible and adopt them fast according to school language.'

iv. Imparting education in context of students speaking different mother tongues/home languages

Respondents were asked to mention the biggest challenge in imparting education in context of students speaking different mother tongues/home languages. The themes emancipated from the analysis of the responses have been grouped for better comprehension purpose and same are mentioned in Table- 19. The 60% respondents said that 'Teachers speaking different mother tongues' is the biggest challenge among Availability of classrooms, teachers speaking different mother tongues, textbooks factors. Whereas 10% each said that Textbooks; both-Textbooks and teachers speaking different mother tongues, all three- Availability of classrooms, teachers speaking different mother tongues. Therefore, majority consider availability of Teachers speaking different mother tongues a biggest challenge as capacity building of teachers to meet the requirement of heterogenous context of mother tongue/home language.

v. Teaching of science and mathematics in bilingual

All respondents opined that this provision has advantages. Similar to the previous section, themes emerged from responses have been grouped into higher order themes and same are mentioned in Table - 20. The key advantages of this provision are Better Comprehension due to easy and better understanding of concepts; and Enhanced cognitive ability and personality development comprising Development of children imagination, creative thinking, no rote learning. Respondent No. 7 while highlighting the advantages of this provision mentions that 'In my opinion, this will make both the subjects easier for students to comprehend and critically think and create freely without

the constraints/limitations of knowledge of English grammar. It will bring out more scope for creativity and thinking ability of the students.'

Respondents also mentioned that there will be challenges to effectively implement this provision. Prominent themes for indicating the challenges are mentioned in Table- 21. The key 2nd order themes based on reasons mentioned by the respondents are Availability of Teachers and Capacity Building in Bilingual; Availability of textbooks in bilingual; and Requirement of higher cognitive ability of teacher due to Lack of confidence of teacher in bilingual and more time required to explain the things, hence requiring planning. Respondent No. 7 states that 'It is going to be challenging in the face of shortage of teachers with desired competency levels, with shortage of tools and apps for online assistance to students in mother tongue.' Further, respondent No. 9 emphasizes upon challenges likely to be faced by teachers and states that 'It is to make student understand in bilingual as challenge when it come to explain terms than teacher has to decide which language to be taught.'

Respondents while responding to specific question regarding challenges for availability of Textbooks perspective, 30% respondents feel no challenges in implementation of this provision from availability of Textbooks perspective and remaining mainly indicated that curriculum strategy needs to be formulated before teaching material is designed. In this regard, Respondent No. 9 mentioned that 'Yes, as school has to take decision took take one language as base language. Then only further implementation of books, study material will be designed.'

As far as challenges from student's perspective like comprehension of concepts are concerned, 40% respondents feel no challenge in implementation while remaining 60% said it will be challenging and also mentioned their reasons for the same. The key

reasons indicated are Confusion for student; Extra efforts required from students; and Difficulty in comprehension for English medium students. Respondent No. 7 states that 'This has been going on in the rural set up already but in the urban set up especially private schools, it would be difficult to comprehend the concept by students who are comfortable with English as the medium of instruction. For students who are familiar with the mother tongue as their medium of instruction, it would be rather easy to comprehend all concepts easily.'

Respondents mentioned several suggestions to address the challenges in effective implementation of this provision. All these challenges have been grouped into higher order themes to make these suggestions more comprehendible and these themes and their grouping are mentioned in Table- 22. Key higher order themes are Strategy for teaching in bilingual comprising; Availability and capacity building of teachers for bilingual setup; and Availability of content in bilingual. Respondent No. 7 suggest that 'Enough teachers should be available to teach in the bilingual setup, students should be trained to smoothly adapt to English at higher levels of learning, sufficient technological aid should be devised for the same.' Interestingly, respondents also suggested to 'Explain benefit for bilingual learning. Respondent No. 8 suggests that 'I think we should try to explain the need of teaching in bilingual to the students too, so that they show a better interest.'

vi. Teaching of three languages

All the respondents state that this provision offer advantages. Responses received from the respondents have been coded and the themes of advantages emerged from coding are clubbed into higher order themes. These themes and its groupings are enlisted in Table- 23. Prominent advantages of this provision are Enhanced Future prospects; Enhanced Understanding about country and its culture; and Enhancement in spirit of National Unity and patriotism. Respondent No. 7 states that 'Understanding the culture and tradition of the nation by learning 2 native languages, significant for national integration and imbibing the spirit of unity and patriotism.' Respondent No. 10 states that 'We are already teaching three languages namely Hindi English and Sanskrit from grade 3.'

Majority of respondents – 70% respondents feel that there will be challenges in implementation of this provision. Challenges stated by the respondents have been extracted from the responses and clubbed in higher order themes. These themes posing challenge for implementation and suggestions to address these challenges are enlisted in Table- 24. Major challenges stated are Availability of teachers; Burden on student; and difficult to teach for teachers at such an early stage. One interesting challenge has also been raised is that language should have practical use. In this regard, respondent No. 10 states that 'Availability of well-versed teachers in any particular language. Secondly language taught must have practical use.so that child could learn better communication.'

Several suggestions have been received to address the challenges for effective implementation of teaching of three languages. The key suggestions are Utility of language; Hiring of expert language teachers; and provision of technological aids to assist the learning of languages. On interesting debate has been started about the practical use of languages being taught. The suggestion is convincing as teaching of languages can inculcate interest for students if there are some opportunity or utility. Hence, economic value needs to be assigned to the language so that students are inclined to study those languages with interest. Respondent no. 10 emphasizing on

practical use of languages states that 'Teaching three languages will definitely improve students multi-tasking capacity, better thinking and communication skill only when it could be used in his day-to-day communication. So, languages taught must have practical utility then only teacher will be able to create interest.'

vii. Challenges in hiring of teachers from other states by entering into bilateral agreements between concerned states

Themes of challenges, emancipated from responses, for hiring of teachers from other states by entering into bilateral agreements between concerned states. The themes for challenges in hiring through bilateral agreement, suggestions to address these challenge and other capacity building challenges for effective implementation of teaching of three languages have been collated and grouped for abstraction and better comprehension. These themes are enlisted in Table- 25. Prominent themes for challenges in implementation of this provision are Accent and expression problem by teachers in foreign environment; Higher cost of hiring; and Coordination between two states and central and state. Respondent No. 1 states that 'As a matter of fact their way of speaking interferes with children's ability to perceive.' Respondent No. 7 while emphasizing on higher cost of hiring of such teachers states that 'Cost and job security not provided may be major challenges apart from shifting destination to new institutions in different states. Availability of proper accommodation for such teachers and ensuring their competency can also be a challenge.'

Respondents suggest that Local graduates/teachers should be given opportunities and training of language can be imparted for the purpose. Further, issues related to teachers hired from other states are Attractive remuneration, job security, provision of proper accommodation, scope of wider exposure. Respondent No. 7 suggest that 'Attractive

remuneration, job security, provision of proper accommodation, scope of wider exposure can be a few means to make this successful.' Respondent No. 10 emphasises upon knowledge of local language by the teacher and suggests that 'The hired teacher should know local language of the state then only better communication can be established otherwise teaching would not be effective. The student and teacher need.to have a common language.'

Respondents indicated other capacity challenges as Ensuring the knowledge and crisis tackling capability of teachers hired from other states; Non-adequacy of teaching resources and teaching materials; and Capacity building of local teachers. In this regard, Respondent No. 7 states that 'Ensuring the knowledge of teachers and the creative instincts to tackle crisis situations in this setup might be challenging.'

Considering the facts about the challenges and suggestions, it appears non-knowledge of local language and difference and ascent may inhibit the transfer of knowledge to the children particularly when an unknown language is being taught to the children at early stage. Thus, promoting the development of resources within the state may be a long term and effective solution.

viii. Teaching of Classical languages and International languages

All the respondents amicably agree that there are advantages of teaching Classical languages and International languages. The themes emerged from the respondents on similar line of previous topics are collated in the table and same are mentioned in Table-26. The key themes of advantages of the provision are Better future prospects by learning of International languages; Enhancement in belongingness and understanding about culture; and Enhancement in cognitive ability and broadening of perspective of student. Respondent No. 1states that 'It would be a boon for students who want to pursue foreign education and also facilitate a healthy background for students pursuing professions like hotel management.' Respondent No. 6 states that 'Helps to slow off mental aging and cognitive decline. Opens the doors for opportunities for studying or working abroad.'

Respondents have also mentioned the challenges and suggestions to address these challenges for effective implementation of this provision. Themes emerged from responses about challenges and suggestions are mentioned in Table- 27. The key challenges are Availability and capacity building of teachers; Availability of interesting teaching material; and Lack of interest of students in classical languages. Respondent No. 6 states that 'Lack of interest in classical languages among most of students. Lack of teachers to teach classical languages.' Respondent no. 9 states that 'Classical language may help child to understand India heritage and culture effectively. The loss due to not knowing classical language is we are not connected to our country and region. We have lost our classical language essence.'

Prominent themes of suggestions to address these challenges are Enablers for Creation of interest in classical languages comprising organise cultural programmes related to that languages, reading literature of those languages, watching shows or debates; Exposure by exchange programs; and Awareness about prospects of learning classical and international languages. Respondent No. 7 suggest that 'Awareness of scope and prospects of learning classical and foreign languages among students to generate interest in the teaching learning process and ensure effective learning among students.'

Inference from above mentioned discussion can be drawn that economic value needs to be created to inculcate the interest of students. Further, it has rightly been mentioned by the respondents that students need to be made aware that why these languages are being taught to them, so that they can appreciate the genesis behind this provision to enable them to study these languages in correct perspective.

ix. Technologies to make the teaching in mother tongue instruction, teaching of three languages and teaching in bilingual effective

Respondents were asked questions about technologies presently being used by their schools and were asked to suggest technologies which can facilitate in effective implementation of these provisions. These suggestions along with technologies being used by schools have been collated in Table- 28. Inference can be drawn from the table that effectively no technologies are being used by Govt. primary schools and they are still relying upon Chalk, Black board and TLM (Teaching learning Material) for teaching. Reputed private schools are at other end of continuum and they are using state of art technologies like Nearpod, padlet, kahoot, polly, Quizzez pear deck; CBPs for training staff in technological domain, regular online tools to devise subject wise quiz; Digital simulation and models etc. to enhance the learning of students. Private schools that are not so rich in resources are using low end technologies like Audio-visual aids, Computer, projector and internet.

Respondents suggest that Audio Visual Aids can be used to show the Pictures, stories, poems, videos, movies to enable students for teaching of different languages. Respondent No. 7 suggests 'Technologies that enhance learning by urging students to get out of rote learning mode and check and prove their competencies and skills through innovations.' As far as technologies which can facilitate in adoption of mother tongue as a medium of instruction in more effective manner may be Translator. In this regard, Respondent No. 7 suggest that 'Technologies that help in translation, sentence construction, vocabulary usage and presentation of learnt concepts in mother tongue

may be helpful.' For facilitating the use of bilingual approach for the students, speaking home language different than medium of instruction, appropriate technology may be Apps and tools that can allow smooth toggling from one language to another. Respondent no. 7 very candidly suggests that 'Apps and tools which can make the transition from one to the other language smooth can be useful here.'

It is to mention that use of technologies in teaching for various purposes is very costly affair. Hence, balance will be required to work out between efficacy of technology and its cost from affordability perspective. Broadly, audio visual aids may be useful for teaching of languages while translator could be useful for teaching in mother instruction particularly when there is a heterogeneity in classroom from the home language of student's perspective. Further, Tools and Apps that permit smooth transition from one langue to another language can be useful for bilingual teaching.

4.4 Research Question: What are the critical aspects of Multilingualism of National Education Policy 2020 in schools?

There are several critical aspects of Multilingualism included in national education policy 2020. These aspects are mainly related to medium of instruction, teaching of three languages, teaching of science and mathematics in bilingual- mother tongue and English, emphasis on learning of classical languages, and provision for teaching of international languages and these are discussed as under:

i. Medium of Instruction:

National Education Policy 2020 states that "young children learn and grasp nontrivial concepts more quickly in their home language/mother tongue". Continuing the tradition of earlier education policy, National Education Policy -2020 has also emphasized upon use of mother tongue/home language as medium of instruction and states that

"Wherever possible, the medium of instruction until at least Grade 5, but preferably till Grade 8 and beyond, will be the home language/mother tongue/local language/regional language". It further states that "teachers will be encouraged to use a bilingual approach, including bilingual teaching-learning materials, with those students whose home language may be different from the medium of instruction."

ii. Three language aspect of Multilingualism

National Education Policy 2020 envisions to teach mother tongue to enable them early reading and subsequently writing during their foundational stage i.e., up to grade 2 with age between 2-8 years while the skills will be developed for reading and writing in other languages in children of Grade 3 and beyond. NEP 2020 also briefly mentioned the roadmap, particularly engaging the human resources for teaching of regional languages, for implementation of its three-language aspect. Central government and State governments shall endeavor "to invest in large numbers of language teachers in all regional languages around the country, and, in particular, for all languages mentioned in the Eighth Schedule of the Constitution of India. States, especially States from different regions of India, may enter into bilateral agreements to hire teachers in large numbers from each other, to satisfy the three-language formula in their respective States." NEP states that at least two languages out of three languages will be native languages of India. Most importantly it mentions that "no language will be imposed on any State" to avoid any backlash from other states particularly Tamilnadu.

iii. Teaching of science and mathematics in bilingual

NEP 2020 provisions to teach science and mathematics in bilingual- to enable the students to think and speak about these two subjects both in their home language/mother tongue and in English. NEP 2020 emphasises on making all efforts to prepare high-

quality bilingual textbooks and teaching-learning materials for teaching of science and mathematics.

iv. Classical languages and International Languages

NEP 2020 laid an important emphasis on teaching of Sanskrit language at all levels of school and provisions that Sanskrit language will be offered to the students as an enriching option including an option under three-language formula at all levels of school. It further provisions that other classical languages viz. Tamil, Telegu, Odia, Malayalam, Kannada, Pali, Prakrit, Persian will also be offered to all students as an option in both private and public schools for learning for at least 2 years from grade 6-12. In addition to Indian languages and English, foreign languages viz. French, German will also be offered to the students at secondary level.

4.5 Research Question: What are the similarities and dissimilarities between National Education Policy 2020 and old education policy in the context of Multilingualism?

Two education policies – National Policy on Education 1968 and National policy on Education 1986 were formulated and notified by Govt before NEP 2020. Similarities and dissimilarities w.r.t. critical aspects of multilingualism of NEP 2020 vis-a-vis old education policies are discussed as under:

i. Medium of Instruction

NEP 2020 states that Wherever possible, medium of instructions the medium of instruction will be the home language/mother tongue/local language/regional language. Thus, home language, mother tongue, local language, and regional language have been used interchangeably by NEP 2020 and have not been defined in policy. Whereas National Policy on Education 1968 had been more specific and mentions about the use

of regional languages only as medium of instruction. Further, NEP 2020 calls for use of home language/mother tongue/local language/regional language as a medium of instruction until at least Grade 5, but preferably till Grade 8 and beyond. National Policy on Education 1968 recognizes that the regional languages are already in use as a medium of instruction at primary and secondary level and calls for taking urgent steps for adoption of regional languages as a medium of instruction at university stage. However, statistics suggest that poor implementation of earlier policies caused increased use of English as a medium of instruction rather than adopting regional languages as a medium of instruction at university stage. National Policy on Education 1986 also recognizes uneven implementation of policy as for as development of languages is concerned but effective curative steps were not taken.

ii. Three language aspect of Multilingualism

NEP 2020 provisions for teaching of three languages out of which at least 2 languages shall be native languages of country. It further states to teach mother tongue to the children enable them reading and writing in mother tongue till grade 2 with the age of 2-8 years. It further mentions for developing skill of reading and writing in other languages from grade 3 and beyond. Whereas National Policy on Education 1968 mentioned for teaching three languages at secondary stage. Thrust of this policy had been on unity and national integration. Thus, it provisioned for teaching of one modern Indian language preferably southern language in addition to Hindi and English in Hindi speaking states and teaching Hindi along with the regional language and English in non-Hindi speaking states. In this regard, NEP 2020 provided more flexibility to the states by not specifying 'Hindi' as one of three languages and has been more practical as far as implementability of policy is concerned. It explicitly mentioned that "no language will be imposed on any State" perhaps learning experience drawn from

resentment of Tamilnadu state during implementation of three language formula and modification of official language Act for Tamilnadu state. Further, three language formula has been implemented at much early stage i.e., from grade 3 against that of a secondary stage in old education polices. Thus, envelop of both aspects i.e., three language is only same but the content of three language aspect of NEP 2020 in terms of flexibility w.r.t. not mentioning English one of the languages, specifically not mentioning any Indian language provided to states, its implementation at much early stage. The NEP 2020 also suggests the roadmap and guides for implementation of three languages, the most important aspect for effective implementation.

iii. Teaching of science and mathematics in bilingual

NEP 2020 provisions for teaching of science and mathematics in bilingual to enable the students to think and speak in mother tongue as well as in English. Whereas in old education policies provision was only for one language as medium of instruction i.e. regional language and no specific provisions was made for teaching of any subject as far as medium of instruction is concerned.

iv. Classical languages and International Languages

NEP 2020 emphasizes upon teaching of Sanskrit language at all levels of school as an option including option under three language formula. It means Sanskrit can be an option for learning as a language from grade 3 onwards under three language formula. National Policy on Education 1968 recognized the contribution of Sanskrit in growth and development of Indian languages and its contribution to cultural unity. But dissimilarity of this provision of NEP 2020 from that of old education policies is that

old education polices did not include Sanskrit as an option for students under three language formula.

NEP 2020 also provisions for teaching of other classical languages viz. Tamil, Telegu, Odia, Malayalam, Kannada, Pali, Prakrit, Persian as an option for at least 2 years from grade 6-12. Other classical languages- Tamil, Telegu, Odia, Malayalam, Kannada can also be learnt under three language formula being Indian native languages. There was no such option for teaching of languages in earlier education policies as an option at school level.

NEP 2020 provisions for offering of foreign language foreign such as Korean, Japanese, Thai, French, German, Spanish, Portuguese, and Russian at secondary level. There is no specific mention of English except teaching of science and mathematics in bilingual which includes English. Whereas though emphasis was slaid on teaching of international languages in earlier education polices but special status was accorded to English among international languages and special emphasis was laid on its teaching by mentioning that 'study of English deserves to be specifically strengthened' to keep pace with worldwide development in science and technology.

Major dissimilarity of Multilingualism aspect of NEP 2020 that of earlier education polices is in respect of its scope. Earlier education policies were made applicable only for government schools whereas NEP 2020 is applicable for both private schools as well as government schools. However, 'wherever possible' word has been added in provisions of NEP 2002 which may provide a leeway to the private schools to escape from the implementation of these provision of NEP 2020.

4.6 Research Question: What would be the estimated financial implication on govt exchequer for implementation of multilingualism aspect of National Education Policy 2020?

Earlier education policies viz. National Policy on Education 1968 and National Policy on Education 1986 provisioned for expenditure of 6 % of GDP on education. However, Economic Survey 2019-2020 states that the public spending (by the Centre and the State) on education was 3.1% of the GDP which is about half of the target spending committed in education policy 1986 (revised in 1992). Shishir Jaipuria, Chairman, Seth Anandram Jaipuria Education Society states that it would not be realistic for India to expect such huge 'investments coming solely from the government and purely philanthropic initiatives to meet Sustainable Development Goal 4 by 2030 to provide inclusive and equitable quality education for all' (Business today, 2020).

NEP 2020 envisages to impart education in home language/mother tongue/local language/regional language until at least Grade 5, but preferably till Grade 8 and beyond. It further envisions to encourage the teachers to use a bilingual approach for the students, speaking home language different than medium of instruction. Secondly, NEP 2020 provisions for teaching of three languages out of which at least 2 languages shall be native languages of country. Thirdly, NEP 2020 provisions to teach science and mathematics in bilingual- to enable the students to think and speak about these two subjects both in their home language/mother tongue and in English. Fourthly, NEP 2020 provisions that classical languages viz. Sanskrit, Pali, Prakrit will be offered to all students as an option in both private and public schools for learning for at least 2 years from grade 6-12. In addition to Indian languages and English, foreign languages viz. French, German will also be offered to the students at secondary level.

Considering the four important aspects of multilingualism of NEP 2020, mentioned in previous paragraph, expenditure is primarily to be incurred on i. Hiring of teachers/capacity building of teachers ii. Translation of teaching material in regional languages iii. Translation of teaching material/books of science and mathematics in bilingual- regional language/English iv. Printing of books v. provisioning of technological equipment in govt schools vi. Development of technological tools – Applications/ video lectures/audio lectures. Further, creation of additional classrooms may be required in Govt schools particularly secondary and senior secondary level to enable the teaching of students with different dominant home languages. Teaching of three languages from class 3 onwards may also require creation of additional infrastructure as languages will be the choice of state/students.

i. Hiring of teachers/capacity building of teachers

Report of MHRD on 'Educational Statistics at Glance' states that there is a shortfall of 9.08 lakh teachers in government elementary schools as on 31.03.2016. Report of UNESCO Institute of Statistics (UIS) (2015) corroborate these statistics and indicates that India is second in the list among 74 countries facing an acute teacher shortage to meet the current education demand.

ii. Three Language formula

NEP 2020 explicitly states that Central government and State governments shall endeavor "to invest in large numbers of language teachers in all regional languages around the country, and, in particular, for all languages mentioned in the Eighth Schedule of the Constitution of India. States, especially States from different regions of India, may enter into bilateral agreements to hire teachers in large numbers from each other, to satisfy the three-language formula in their respective States." Implementation of this provision of NEP 2020 will require large number of hiring of teachers particularly when there is already huge dearth of teachers in primary education.

In accordance with earlier education policies, three language formula was to be implemented at secondary stage. Seventh All India School Education Survey (2007) of NCERT states that three language formula was implemented in 90.61 % of upper primary schools (6th grade to 8th Grade) in 2002. Further, three language formula was implemented in 84.86 % of secondary schools (Meganathan, 2011). Whereas NEP 2020 envisages teaching of three languages from grade 3 onwards in primary schools. Therefore, two-pronged strategy is required to be adopted – i. replication of three language formula in remaining schools at upper primary/secondary and upper secondary schools where it is not implemented ii. introduction of new structure for teaching of three language formula in primary schools.

Private schools hire a dedicated teacher for teaching of language just like other subjects i.e., science, mathematics, Social studies etc. It is learnt that all the subjects are taught by the teacher in govt primary schools. It is pertinent to mention that teaching a language is different from teaching another subject as each language has different, grammar rules, vocabulary and code. Respondent schools suggested that language should be taught by expert teachers. Further, NEP 2020 also provisions for teaching of languages under three langue provision by expert language teacher. NEP 2020 envisages that 'All languages will be taught with high quality to all Students.' Accordingly, NEP 2020 provisions for hiring of teachers from respective states through a bilateral arrangement.

Hence, minimum one teacher for each language except mother tongue/home language/ school may be required. However, considering the low strength of govt school one teacher/ school for teaching two languages is minimum requirement.

Statistical report of HRD Ministry, published in 2018 on 'Educational Statistics at A Glance' states that 72.43 % of total schools are government schools. If this ownership statistics applied across the level of schools, 6.09 Lakhs primary schools, 3.11 lakhs upper primary schools, 1.01 Lakhs secondary schools and .82 Lakhs senior secondary schools are Govt schools. Assuming statistics of Seventh All India School Education Survey (2007) of NCERT regarding adoption of three language formula is equally applicable for Govt. schools, there may be approx. 29000 upper primary schools, 15000 secondary schools and 11000 senior secondary schools of govt where three language formula is not implemented. Estimated expenditure on hiring of expenditure is likely to ne to the tune of Rs 92223 Crore per annum (Table- 29 & Table- 30).

Capacity building of existing teachers will be required for teaching in mother tongue/home language/regional language, bilingual teaching of science and math and teaching of languages. Thus, expenditure will be required to incurred on massive capacity building programmes of teachers for effective implementation of provisions of multilingualism.

iii. Other expenditures

Expenditure will be required to be incurred for i. Translation of teaching material in regional languages iii. Translation of teaching material/books of science and mathematics in bilingual- regional language/English iv. Printing of books v. provisioning of technological equipment in govt schools vi. Development of technological tools – Applications/ video lectures/audio lectures.

NEP 2020 envisages that 'The teaching of all languages will be enhanced through innovative and experiential methods including through gamification and apps' Data for the year 2015-16 also suggests that only 10.36 % of primary schools are having computer while 27.31 % of all level schools have computers. Thus, investment will also be required to be made to equip govt schools with computers and technological tools.

Huge financial expenditure will be required to be made for effective implementation of NEP 2020. Major component of it may go for hiring of teachers. During data collection, it was learnt that there are primary schools where strength is too less Example- 16 students are being taught by three teachers. Thus, per student expenditure comes out Rs 11240/- per student per month. This expenditure is multifold of the fee in private elementary schools. Kingdon (2017) contend that 'NSS (National Sample Survey) 2014 data shows that private unaided elementary-schools' median fee is Rs 417 per month (Rs 292 a month in rural and Rs 542 a month in urban India).' Thus, option for Private Public Partnership (PPP) may be explored in the areas where govt. schools are economically unviable- in terms of strength of school.

Chapter- V Conclusion and Way Forward

5.0 Way Forward

NEP 2020 is a bold policy and has the capacity and capability to revolutionize the education system. At the same time, policy is likely to encounter several challenges during its implementation. The challenges emancipated from the responses of the respondents and their suggestions to address those challenges are mentioned as under in form of way forward for effective implementation of NEP 2020:

- Findings of research, more than 95% respondents are aware about the education policy, indicate that Govt's efforts have fructified in spreading awareness among its stakeholders- parents and schools, about the policy. However, schools should explain genesis behind/ benefits of the provisions of multilingualism particularly teaching of three language and bilingual teaching of science and mathematics to inculcate the interest of students in learning.
- 2. Advantages of imparting education in mother tongue/home language have been recognized by the stakeholders and it will facilitate in reduction of dropout rate as non-comprehension of the subject was also one of the reasons for children leaving school particularly in rural areas/children of under privileged class. However, Development of curriculum/textbooks, Translation of content in Home language; and availability and capacity building of teachers are major challenges government has to address for its effective implementation.
- 3. Translation of content in home language is major challenge. Most of the time literal and word to word translation causes loss of essence and compromises with the flow. This whole process of translation makes the content un-

interesting and sometimes loss of meaning/misrepresentation of facts also. Therefore, textbooks may be re-written in home languages instead of going word by word/sentence by sentence translation.

- 4. Findings of research also indicate that there is a strong nexus between English, its language power, and its social identity. This nexus cannot be broken just by enforcement by the government. Rather economic value needs to be associated with these languages which will make the whole process market driven and students will automatically go for learning in mother tongue with interest. Economic value of language for the students is employability and higher education in good institution. Hence, Government may strive for making higher education available at least in regional languages as an option. Further, environment needs to be made conducive so that lack of English language skill does not hamper the prospects of the student in market.
- 5. Respondents have also opined that English language skill is required for attaining higher education abroad and ensure the global connectedness along with competitiveness of the country. Recognizing these benefits, earlier education policies had envisaged for strengthening the study of English so that pace with growing knowledge of world particularly in Science and Technology can be maintained. Thus, though English should not be used as a medium of instruction as provisioned in NEP 2020. However, it may be taught as a language so that competitiveness of the country and global connectedness of student is not jeopardized.
- 6. NEP 2020 provisioned for use of regional languages as a medium of instruction in addition to mother tongue and home language of child. This provision would facilitate the state governments for easier and smoother implementation in

addition to less requirement of resources- teachers, textbooks/material for teaching in regional language. Further, Home Language/Mother Tongue will be required to associate an economic value with it to enable the language to flourish on its own and it is extremely difficult to attach economic value with 320 mother tongues. But there is also a flip side to it. Firstly, child can easily learn and comprehend in mother tongue/home language but not in regional language. Regional language may be as alien to the student as any other language. Secondly, mother tongue/home langue may be marginalized due to double divide. Therefore, there is a need to strike out a fine balance between two conflicting requirements. Thus, children may be taught in their home language/mother tongue during their primary education, whereas they may be imparted education in regional language from upper primary (6th standard) onwards after they are taught regional language under three language formula. Therefore, non-acquaintance of regional language will not inhibit the learning and comprehension of child during primary education; and will also facilitate the state governments/central government to associate economic value -higher education in regional language and employability, with regional language.

7. Findings of research indicate that advantages of bilingual teaching of science and mathematics has widely been appreciated. But the terminologies of technical words of science and math may be adopted as it is in home language rather than translating those terms in home language otherwise remembering two different names of same term and relating them to the concept may cause confusion in mind of young ones. Secondly, there are pedagogical challenges for teaching science and math in bilingual and same may be formalized. It may perhaps be better that basic concepts are explained in mother tongue/home langue and details are covered in English. Further, doubts may be explained in both languages depending upon comfort of student.

- 8. Textbooks of science and math may be printed in bilingual on page-to-page basis (e.g.- left page English version and right page Mother tongue version or vice-a-versa) so that frequent flipping of the pages to refer content of a particular language is avoided rather than printing separate books in both languages.
- 9. NEP 2020 has envisaged the fact of shortage of teachers for teaching languages and accordingly provisioned for hiring of teachers for teaching of languages under three language provision from other states on mutual agreement basis. However, ascent of the teacher of other state, which varies from regions to region on the basis of language being spoken in that region, and lack of comfort in mother tongue may make the comprehension of language more difficult for student particularly of elementary schools. Further, hiring of teacher from other state may require incentivizing them for leaving their state which may create two salary structure for teachers leading to disgruntlement in teachers of home state and also increase the cost of hiring for states. Thus, degree courses in native languages with the knowledge and comfort of mother togues/home languages of state are available in adequate number. Priority in hiring may be given to such teachers who are well versed with the language as well as having comfort in mother tongue. This may be fruitful as a long-term strategy.
- 10. Technology cannot substitute teachers, but it facilitates enhancement in learning and comprehension for the students. Findings of research states that advanced technologies are being used by the resource rich schools while the private schools with poor resources and govt schools are either relying on traditional

way of teaching or using very primitive type of technologies. Findings of research suggest that Translator technology can be useful for teaching subject content in mother tongue/home language. Further, Apps and tools that facilitate smooth transition from one language to another language may be helpful for bilingual teaching. Audio visual aids may be useful for teaching of languages. In today's world, technology has become an integral part of imparting education, but affordability of these technologies leads non-use of these technologies by pvt. schools – not rich in resources and govt schools. Therefore, govt may invest or incentivize development of such tools and Apps in open source to enable resource constrained pvt. schools and govt schools to promote inclusion and equity in society.

- 11. Capacity Building of huge manpower for teaching in mother tongue/home language, teaching of three languages and bilingual teaching of science and math is a major challenge for the government and a structure needs to be evolved for capacity building of teachers. A Hub and Spoke model may be adopted for capacity building of teachers with District Institute of Education and Training Centre (DIET) as a Hub and primary schools and other government schools acting as a spoke being on similar line of 'Ayushman Bharat-Health wellness Centre' capacity building model. DIET may adequately be equipped with resources along with technology.
- 12. Huge financial resources may be required for hiring of teachers, capacity building, equipping the govt schools with appropriate technology. Governments tend to increase investment in Higher Education due to their immediate reflection in GDP and enhancement in the short-term return on investment. But investment in elementary education is utmost important to build the foundation

and the efforts of enhancing research and development and quality higher education may not fructify unless there is a strong foundation of elementary education particularly in science and technology domain. Further, enhancement in investment in elementary education will also improve inclusion, equality and equity in society, the main objective of NEP 2020 and may facilitate reduction in dropout rate.

- 13. Expenditure on hiring of teachers may be the largest component of the financial outgo from govt exchequer. There are some govt. primary schools whose strength is too less leading to per student expenditure extremely high in comparison to the fee being charged by private schools in respective areas. Thus, option of Public private partnership may be explored for the schools which are highly economic un-viable.
- 14. An informal platform may be created by the state governments for discussion in regional language of respective state on effective teaching of the subject. Many innovative teaching methods, pedagogical strategies are being devised by the teachers of govt schools. Such platform may be helpful in dissemination of best practices, experiments being done by the teachers of govt. schools as the information available on internet may not be useful in the context of govt. schools and respective state.

5.1 Conclusion

The country possesses huge diversity on linguistic and cultural aspect. This diversity indicates richness of culture of country but same also inhibits the acquisition of quality education particularly when social identity and power is commanded by English language. Multilingualism may be considered one of the most important part of NEP 2020 in this context of country if properly implemented. Advantages of the provisions of multilingualism have been widely agreed by the population in this research. This is pleasant surprise that parent respondents among whom 93% possesses qualification graduate and above, 77% are earning more than 10 Lakhs per annum and children of 77% respondents studying/studied in private schools are likely to be major beneficiary of social identity and language power of English, but most of them told the provisions of multilingualism advantageous. Government has very effectively communicated the policy to its stakeholders, first part of implementation of policy.

Several challenges are perceived to be posed in effective implementation which is obvious as a bold policy has to face challenges in its implementation. A proper strategy for translation of content into mother tongue/home language, which is not the traditional way of translation of word to word or sentence to sentence, needs to be devised to make the content easy to understand and interesting for the students. Enforcement of government in implementation of provision of multilingualism- use of mother tongue/home language as a medium of instruction, bilingual teaching of science and math, teaching of three languages, and teaching of classical languages would not fructify unless economic value with mother tongue/home language/regional languages is associated. Let the whole process be driven by market then there would not be many to take the pricy education from private schools of English medium Instruction. Capacity building and hiring of teachers is another major challenge to be addressed. There is no need to use English as a medium of instruction but English as a language may be taught/continued to be taught so that prospects of acquisition of higher education from abroad are not hampered and simultaneously competitiveness of country remains intact. I am sure that resolution of initial challenges in implementation of this policy will provide a good return on investment in long term and future

generations will bear the fruit of effective implementation of the policy. The benefits will not be limited to a section of society rather it will benefit a whole society and infuse inclusion, equality and equity in society.

5.2 Limitations and future scope

Research has been conducted in Delhi/NCR and UP. The sample included the parent respondents from large part of society- gender, economic criteria, qualification though slightly tilted towards upper strata in term of annual income and qualification, location of residence (Urban). Sample of school respondents has about equal representation of Govt- private schools, Rural Area-Urban Area, Primary- Secondary, English Medium-Hindi medium. Thus, sample, though limited in size, can broadly be considered representative of population. Therefore, findings of research can be generalized, and recommendations of research can be implemented in the area of research. The context of other part of country may be different due to high language and cultural diversity. There are several states particularly Assam, Odisa etc. which are having high linguistic diversity and many languages being used as a medium of instruction. Thus, classroom is also likely to highly heterogenous w.r.t. languages being spoken by the children, in comparison to classrooms of Delhi/NCR and UP area. In such cases pedagogical challenges increase many folds. Thus, research has it limitation as far as applicability of recommendations and generalizability of findings are concerned.

The research was based upon data collected through unstructured questionnaire. Hence, data provided deeper insights in terms of themes. Thus, a quantitative study based on data of structured questionnaire may be conducted with larger sample size. Questionnaire may contain the questions based upon themes explored by this research. Further, similar research may be conducted in other part of country due to its limitation in terms of applicability and generalizability.

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Annexure-I: Tables

Demographic Characteristics	No of responses	Representation (%)
Gender		
Male	55	90%
Female	6	10%
Others	0	0%
Age		
Less than 25	0	0%
25 - 35	6	10%
35 - 50	18	30%
Above 50	37	60%
Qualification		
Less than Graduate	4	7%
Graduate	15	25%
Postgraduate	25	41%
Above Postgraduate	17	28%
Location of residence		
Urban	60	98%
Rural	1	2%
Type of Employment		
Govt.	52	85%
Private	9	15%
Business	0	0%
Others	0	0%
Annual Income (in Lakhs)		
Less than 1.5	6	10%
1.5 - 3	3	5%
3 - 5	0	0%
5 - 10	5	8%
Above 10	47	77%
Child 1 studying/studied		
Private School	47	77%
Govt. School	13	21%
Child 1 studying/studied		
Private School	39	64%
Govt. School	11	18%

Table 1: Descriptive statistics of Parent respondent's Demographic Characteristics

Sl No.	Themes	2 nd order themes	3 rd order themes
1.	Strong foundation for advance learningAddress barrier in learningBenefit/Improvement in learning (12)More time for Science and Maths	Learning (15)	Learning and comprehension (36)
2.	Comprehension easy (18) Assimilation easy for children (3)	Comprehension (21)	
3.	 Expression of doubts easier/self- expression (3) Enrichment of child by proliferation of literature in different languages Children are comfortable in mother tongue (3) May correlate learning with his environment Reduce burden for child (2) Improve study life balance Development of cognitive abilities Social learning apart of classroom learning (2) 	Cognitive and social development (14)	Cognitive and social development (14)
4.	Increase literacy rate (GER) Reduce dropout rate	Promote Equity (2)	Promote Equity (2)
5.	Promotion of linguistic and literature culture (2) Development of local languages (5) Social identity and cultural identity	Promotion of Social identity and cultural identity of nation (8)	Promotion of Social identity and cultural identity of nation (8)
6.	Participation of parents to enhance child's learning and monitoring (9) Reduce requirement of tuition	Comfort of parents (10)	Comfort of parents (10)
7.	Enhance comprehensiveness of teacher (2)	Enhancement of Teacher's comprehension (2)	Enhancement of Teacher's comprehension (2)
8.	Facilitate to impart skill training	Skill development (1)	Skill development (1)

Table 2: Themes outlining advantages of mother tongue as a medium of instruction

Sl	1st order Theme	2 nd order theme	3 rd order theme
No.			
1.	Availability of teachers with proficiency (12)	Availability of teachers trained in local language (12)	Hiring and capacity building of teachers (16)
2.	Training of Teachers in local language (3)	Capacity Building (4)	
	Difficulty for teacher to learn English due to transfer in other state		
3.	Perception of better employability for students proficient in English (4)	Lack of Employability (4)	Social Identity and Language power of
4.	Preference for English school due to Craze and preference for English (3)	Social Identity and Language	English (14)
	English start at 5 and takeover by 8 from mother tongue power of English (6)		
	English should be part of curriculum but not medium of instruction		
	Inferiority complex about native languages		
5.	Communication skill is must to excel, hence English may be introduced as a skill not as a language from young age		
	Children not knowing English are Low in self esteem		
	English should be taught from primary school as children may loose out		
	Difficult to comprehend when visiting other states due to lack of English knowledge	Lower cognitive ability (4)	

Table 3: Themes outlining challenges of mother tongue as a medium of instruction

Sl No.	1st order Theme	2 nd order theme	3 rd order theme
6.	Development of curriculum/syllabus in local language due to large no of languages in country (3) Development of curriculum particularly science Teaching in both Hindi/English should continue till good curriculum is formulated	Development of curriculum (5)	Development of curriculum and availability of learning material/books in home language/mother tongue (21)
7.	Translated text should be made easy to learn Translation of literature in mother tongue (3)	Translation of text in local language/Regional language (4)	
8.	Availability of Text Books (10) Getting material (2)	Availability of Textbooks in Home Language/Mother tongue (12)	
9.	Difficulty in comprehension of subject when its language changes Switching to higher school difficult where English is the medium- disadvantage in comparison to peer (4) English at primary level required to integrate with higher education which is in English (2) Difficulty in acquisition of higher education abroad	Higher switching cost due to change of medium of instruction to English (8)	Higher Switching cost (11)
10.	Difficulty in learning due to parent's mobility as it may entail learning of new language (2) Children of migratory work force at disadvantageous stage	Impact on learning due to mobility (3)	
11.	May increase dropout rate in higher classes	Increase in dropout rate (1)	Socio-economic factor (8)
12.	English required for global competitiveness in era of globalisation (2)	Adverse impact on global competitiveness of country (3)	

Sl No.	1st order Theme	2 nd order theme	3 rd order theme
	Inhibit communication in English leading to difficulty in leading word		
13.	Non implementation of policy in urban areas may create urban-rural divide		
	Children of Govt school may suffer as implementation in private school difficult (2)		
	Resistance from private schools as English medium instruction provides them edge		
	Huge technological upgradation is required where govt schools may lag from Private schools	Adverse impact on govt schools (5)	
14.	Difficulty in organising interstate/national competition	Non-uniformity (3)	Non-uniformity (3)
	Non-Uniformity in content		
	Non-uniform boards for class 10 & 12		
15.	Inertia as human nature (2)	Resistance to	Psycho-political factors (5)
	Children already in education system from last 2-3 years	change (3)	
16.	English schools may spread misinformation due to vested interest	Social and political factor (2)	
	Political interference and personal interests		
17.	Infrastructure and logistics	Infrastructure (1)	Infra and logistics (2)
	Availability of software	Technological upgradation (1)	
18.	Classroom is a much heterogenous space than monolingual or bilingual- pedagogy is a challenge for such classroom	Pedagogical challenge (1)	Pedagogical challenge (1)

Sl	1 st order Themes	2 nd order themes	3 rd order themes
No			
1.	Learning of Languages (2) learning of multiple languages (9)	Linguistic development of	Linguistic and personality
	Native language proficiency	student (12)	development of
2.	Self confidence (2)	Development of	student (32)
2.	Enhancement in Confidence	personality and	student (52)
	Mitigate fear of school	cognitive abilities	
	overall development	(17)	
	Enhancement in versatility (2)		
	Recognition of self identity		
	enhance adaptability toward the cultural		
	and linguistic changes (2)		
	Enhance cognitive ability (2)		
	Facilitate to learn regional and cultural		
	aspects of country		
	Recognition of self identity		
	All-around growth to compete globally		
	Facilitate to communicate their peers of		
	other part of country (2)		
3.	Easy to propagate	Facilitate mobility	-
5.	Facilitate the mobility in other states	(3)	
	Offers multiple language options		
4.	Promote national unity (3)	National	Socio-political
	Better national integration	integration (5)	factor (11)
	Widespread use of Hindi	6 (*)	
5.	Enhances social fabric	Social harmony	
	Respects diversity	(2)	
6.	Enhance prominence of Indian	National pride (4)	
	Languages		
	Preservation of dialect		
	To help in preserving culture (2)		
7.	May facilitate to resolve the linguistic	Political factor (1)	1
	disputes between states		
8.	Good for underprivileged/rural area	Promote equity (4)	Promote equity
	students (2)		(4)
	Boon for rural/remote areas (2)		
9.	Employment generation due to	Enhancement in	Enhancement in
	engagement of multiple teachers for	employment	employment
	same subject	opportunity and	opportunity and
	Boon for Media of Communication	employment	employment
	Skill based training due to knowledge of	generation (4)	generation (4)
	multiple languages		
	Enhancement in opportunity		
10.	Focus on knowledge than language	Enhancement in	Enhancement in

Table 4: Themes outlining advantages of three language formula

Sl No.	1st order Theme	2 nd order theme	3 rd order theme	
1.	Inclusion of additional language in curriculum Availability of curriculum in chosen language	Formulation of curriculum (2)	Translation of content and availability of material/textbooks (9)	
2.	Availability of Textbooks (5) Availability of books other than curriculum	Availability of Textbooks (6)		
3.	Translation in respective language	Translation in home language (1)		
4.	Availability of teachers (15)	Availability of Teachers (15)	Availability of teachers and their capacity building (16)	
5.	Capacity building of teachers particularly in tribal languages	Capacity Building of Teachers (1)		
	Training of teachers			
6.	Creation of infrastructure (3) Requirement of huge financial resources for hiring of language teachers	Infra development and Requirement of resources (4)	Infra development and Requirement of resources (4)	
7.	Non learning of global language - English will hamper growth and future prospects	Power of English language (1)	Power of English language (1)	
8.	Change the mindset of the people as English given more importance	Attitudinal issues (2)	Attitudinal and coordination issues (6)	
	Change in attitude of school authorities			
9.	Interco ordination among three languages (2)	Coordination issues (4)		
	Coordination among teachers of different states			
	Hindi may go in backburner especially in southern & North east			

Table 5: Themes outlining challenges of three languages formula

Sl No.	1st order Theme	2 nd order theme	3 rd order theme
	states, as two native languages are required		
10.	Difficulty in understanding these languages at their level	Burden on student (16)	Burden on student (16)
	Dependency on tutor		
	Student may be weak in one language out of three/difficulty in learning three languages (2)		
	Difficult to identify two language native to India in Hindi Heartland		
	Movement due to transfer- learning of other state language may be required (2)		
	Extra burden of learning 3rd language (9)		
11.	Enhancement in fee	Enhanced cost for	Enhanced cost for
	Increase of burden on parents (2)	parents (5)	parents (5)
	Difficult for illiterate family background as parents are not likely to know all languages		
	Difficult to monitor by parents due to not having knowledge of languages		
12.	Politically motivated local interests	Political factors (2)	Political factors (2)
	Difference between states due to concurrent list subject		
13.	Implementation in private schools	Implementation issues (3)	Implementation issues (3)
	Pan India Implementation		
	Magnitude of change		

Sl No.	1 st order themes	2 nd order themes	3 rd order themes
1.	Easy comprehension of concepts (16) Easier assimilation of concepts (2)	Improved comprehension (29)	Enhancement in learning, comprehension and applied aspects (47)
	Better comprehension (9) Easy comprehension of scientific subjects in home language (2)		
2.	Learning of science and maths may be easier (4) Better learning (2) Faster learning	Improved learning (7)	
3.	Improvement in level of language Learning of both languages	Improved learning of languages (4)	
	Facilitate learning of English language Learning of second language- English		
4.	Acquire scientific capabilitiesReal knowledge impartationReduce fear of subjects as being taught in home languageLearning of applied aspectsEasy to correlate with everyday happening (3)	Better acquisition of applied aspects (7)	
5.	Eradication of hesitation to ask question Better expression Remove language barrier Better thinking (2) Boost confidence Development of analytical ability (2)	Enhanced cognitive capabilities (10)	Enhanced cognitive capabilities (10)

Table 6: Themes outlining advantages of bilingual teaching of Science and Math

Sl No.	1 st order themes	2 nd order themes	3 rd order themes
	encourage group discussion		
	Enhancement in creativity		
6.	Reduced burden on parents	Reduced burden on	Reduced burden on
	Parents can help in teaching these subjects	parents (2)	parents (2)
7.	Easy assimilation of rich ancient knowledge- Thoughts/ research, and experiments of intellectual and spiritual giants	Development of culture (3)	Socio-cultural factor (3)
	Recognition of identity as a nation		
	Preservation of culture		
8.	Ease of assimilation for children with rural / underprivileged background (2)	Improvement in Equity (3)	Improvement in Equity (3)
	Will help to comprehend for students not fluent in English		
9.	Education in higher class may become easier (3)	Enhanced global connectedness (5)	Enhanced global connectedness (5)
	Prepare for global competition		
	Global connectedness as English being international language		
10.	Easier to explain the science and maths concepts in local language	Enhanced teaching (1)	Enhanced teaching (1)

Sl No.	1 st order themes	2 nd order themes	3 rd order themes
1.	Availability of Books in bilingual (2) Availability of material in bilingual (6) Non availability of scientific material in home language	Availability of books (9)	Translation of content and availability of material in bilingual (15)
2.	Availability of curriculum in local languages Formulation of curriculum	Formulation of curriculum in home (2) languages	
3.	Correct translation of science subject in local language (2) Difficult to understand and relate as Translation of each word in home language Good translation in local language for easy learning (2)	Good translation of content in home languages (4)	
4.	Good Methodology to teach in home language Requirement of changes in teaching method due to teaching in bilingual	Pedagogical challenge to teach in bilingual (2)	Pedagogical challenge to teach in bilingual (2)
5.	teachers with the required skillset (6) Availability of teachers in bilingual (6) Proficiency of teachers in both languages (2)	Availability of trained teachers (10)	Availability of teachers and their capacity building (14)
6.	Imparting training to teachers Knowledge of terminologies of both languages to teacher Extra effort due to comprehension of concept in English and its translation for teaching Encounter difficulties in non- comprehending difficult vocabulary related to a particular subject by teacher	Capacity Building of teachers (4)	

Table 7: Themes outlining challenges of bilingual teaching of Science and Math

Sl No.	1 st order themes	2 nd order themes	3 rd order themes
7.	Difficulty to learn in two languages Difficult to learn both languages with Equal	Difficulty in learning and burden on child (12)	Difficulty in learning and burden on child (12)
	propensity Overburdening of child (3)		
	More emphasis on a particular language		
	More attention by the children towards one language		
	Dis-balance work life balance		
	Encounter difficulties in non- comprehending difficult vocabulary related to a particular subject by student		
	Requirement of Knowledge of English (2)		
	Difficult to grasp due to non- uniform terminology		
8.	Problem when pursuing higher education from abroad	Difficulty in acquisition of higher	Difficulty in acquisition of higher
	Problem in thinking at higher education	education (5)	education (5)
	Disadvantageous at higher education level where medium of instruction is English		
	May face problem when going abroad for higher education		
	May face problem when Interacting on international forum		
9.	Enhancement in requirement of tuition as parents may not be proficient both languages	Enhanced cost for parents (2)	Enhanced cost for parents (2)
	Increase in cost of education as Private schools may prescribe two sets of books		

Sl No.	1 st order themes	2 nd order themes	3 rd order themes
1.	Good infrastructure (8)	Good Infrastructure	Good Infrastructure
	Better teaching aids (2)	(14)	(14)
	good teaching facilities (4)		
2.	English medium (4)	English Medium	English Medium (5)
	Proficiency in English	(5)	
3.	Perceived better teacher	Trained teacher (5)	Trained teacher with
	Good teachers (4)		soft skills (13)
4.	Dedication of teacher	Higher soft skills	
	Direct contact of teacher with parents	of teacher (8)	
	Respect of student towards teacher		
	Responsive teacher		
	Less Absenteeism of teachers		
	Responsive teacher		
	More Committed teacher (2)		
5.	quality education (10)	Better education	Better education and
	Better standard of education	(11)	learning (15)
6.	options to learn more subjects	Better learning (4)	
	Fast learning		
	Correlation with surroundings		
	More exposure while learning		
7.	Cultural activities	Extra-curricular	Better personality
	Impart training of games	activities (9)	development of child (19)
	Physical development		
	Emphasis in pvt schools on extra co-curricular activities (6)		
8.	Development of communication skill	soft skills in student (10)	
	opportunity for student to exhibit talent		
	better in personality developments in Pvt Schools (2)		

 Table 8: Themes outlining reasons for study in Private school

Sl No.	1 st order themes	2 nd order themes	3 rd order themes
	Mental development		
	Aim of good human being		
	quality of peer group (4)		
9.	Nearby home	Convenience (5)	Convenience (5)
	Convenience		
	Requirement of uniformity due to All India transferability		
	Absence of good govt schools in primary and secondary education		
	Similarity of syllabus		
10.	Ownership of an individual	Better management	Better management
	Autonomy to school	(3)	and conducive environment (18)
	accountability of teaching staff		chvironnient (18)
11.	Result oriented approach	Result oriented	-
	Better results	approach (8)	
	Attention as per calibre of children		
	Better discipline (5)		
12.	Conduciveness ambience for study (2)	Better hygiene factors (7)	
	Proper care		
	Better hygiene (2)		
	Cleanliness		
	Safety of child		

Sl No.	1st order themes	2 nd order themes	3 rd order themes
1.	English is universally accepted language International language	Acceptability of English (2)	Social identity and power of language (9)
2.	Lose their confidence which comes through proficiency in a foreign language Self esteem	Perceived social identity of English (2)	
3.	Better future opportunities in English English prepares you for jobs word wide Less scope and less job opportunities	Employability and global competitiveness (5)	
	for child learning in mother tongue Employability, a big issue is better in English English helps them to compete globally		
4.	Helpful for them to get to go to get quality training abroad Helpful in higher education (engg, medicine etc) where majority of education takes place in English medium.	Acquisition of good higher education (5)	Acquisition of good higher education (5)
	Mode of higher education is English. Mother tongue create a barrier in the way of students from getting into top professional studies		
5.	Transferable job Being a central government employee it will be difficult to get taught in mother instruction	Transferability (2)	Transferability (2)
6.	Standards of teaching better in English	Quality education in English (1)	Quality education in English (2)
7.	Abundance on course material in English Higher studies literature is universally available in English for all kind of studies in world, including data in internet	Availability of learning material (2)	Availability of learning material (2)

Table 9: Themes outlining reasons for study in English Medium Instruction

Sl No.	1 st order themes	2 nd order themes	3 rd order themes
1.	Availability of good textbooks in mother tongue may reduce requirement of tuition	Availability of textbooks in mother tongue (1)	Availability of textbooks and teachers in mother
2.	Availability of teachers in mother tongue may reduce requirement of tuition	Availability of textbooks in mother tongue (1)	tongue (2)
3.	Better comprehension in bi-lingual or multilingual teaching will definitely reduce requirement of tuition	Better comprehension (6)	Better comprehension (6)
	May reduce possibility of going to tuition to get more clarity on the concepts		
	Education in mother tongue will reduce the requirement of tuition (2)		
	Student can learn on their own		
	Better schooling of NEP 2020 will reduce requirement of tuition		
4.	parents may able to intervene in better way and may monitor the progress of the child in a better way	Better Parents comprehension (3)	Better Parents comprehension (3)
	Parents can teach their children upto a particular class without tuition		
	Parents can teach them		
5.	Scarcity of teachers for teaching science and maths in local language and each language of three languages	Scarcity of teachers in mother tongue (2)	Scarcity of teachers in mother tongue (2)
	Tuitions to these subjects will be difficult		
6.	Students will be enthusiastic towards education due to medium of instruction in mother tongue	Enhancement of cognitive ability (2)	Enhancement of cognitive ability (2)
	Conceive the intricacies of the subject very easily and student may correlate it with their surrounding quickly		

Table 10: Themes outlining reasons for reduction in tuition requirement due to NEP 2020

Table 11: Themes outlining reasons for No Impact/increase in tuition requirement due to NEP 2020

Sl No.	1st order themes	2 nd order themes
1.	Teaching of maths and science in mother tongue may affect understanding of concepts	Difficulty in comprehension due to bilingual teaching
2.	Teaching of Multiple languages impacts education	Impact due to Multiple language teaching
3.	Tuition problem is due to the gap between teaching and exam baselines. Introducing bilingual teaching may not eliminate tuition	Difference between teaching and exam baselines
4.	Student need tuition due to different level of mental and physical development	Difference in mental and physical development
5.	Difficult for the parents to guide their children due to changed requirements	Inability of parental guidance

Table 12: Themes outlining reasons for impact of multilingualism on equity and inclusion in society

Sl No.	1 st order themes	2 nd order themes
	Reasons for impact of multilingualism of between private and Govt school and imp in society- No Impact	
1.	Only Language skill improve	Improvement in language skill
2.	Depends upon employment opportunity Quality of Job vis a vis pvt school	Employment opportunity
3.	Reduce gap between private and government school only if infrastructure and teaching standard of govt school is improved.	Improvement in infrastructure
4.	Most of the children are from the families who are even below the poverty line wherein the parents/family is not very clear about the importance of education.	Depends upon family background
	Impact of multilingualism on reduction in and Govt school and improvement in e Positive Impact	
1.	Better understanding of subject and concepts	Better comprehension
2.	Promote more confidence among students	More confidence in student
3.	Equity in society through uniformity (equity) in education which can be done through multilingualism.	Enhancement in Uniformity in education

Demographic Characteristics	Representation (%)
Location of school	
Urban	55 %
Rural	45 %
Type of ownership of school	
Government	55 %
Private	45 %
Level of school	
Primary	45 %
Secondary	0 %
Both	55 %
Strength (no of students) of school	
Less than 100	36 %
100- 500	18 %
500- 1000	18 %
Above 1000	27 %
Medium of instruction of school	
Hindi	64 %
English	27 %
Both	9%
Other	0 %
Percentage of girl students in school	
Less than 10	9 %
10 - 20	9 %
20 - 40	27 %
Above 40	55 %

Table 13: Descriptive statistics on Demographics Characteristics of Schools

Demographic Characteristics	Representation (%)
Gender	
Male	45 %
Female	55 %
Others	0 %
Age	
Less than 25	0 %
25 - 35	19 %
35 - 50	45 %
Above 50	36 %
Experience as a teacher/principal (No of Years)	
Min	9 Years
Max	33 Years
Mean	17.5 Years

Table 14: Descriptive statistics of School respondent's demographics

Sl No.	1 st order themes	2 nd order themes	3 rd order themes
1.	Easy to understand (3) Grasp concept more easily Grasp nontrivial concepts more quickly Comprehend the subject in a better way	Improved Comprehension (6)	Improved comprehension and Learning (10)
2.	Learn in own language Improve faster learning More effective and convenient for children to learn Learning concepts in mother tongue for children who have no access to English is easier	Improved learning (4)	
3.	Language is glorified when taught	Pride for language	Pride for language
4.	Long retention in children Boost child's self- confidence (2) Better communication with their teacher Better communication skill in mother tongue	Enhanced Cognitive ability (5)	Enhanced Cognitive ability (5)
5.	Enhance that parental participation in child's learning	Enhanced parental participation	Enhanced parental participation

Table 15: Themes outlining advantages of mother tongue as medium of instruction (Schools)

Sl No.	1 st order themes	2 nd order themes	3 rd order themes
1.	Difficulty in teaching if students are from different backgrounds Students from different background (2)	Background diversity of students (4)	Background diversity of students (4)
	Challenges in areas of mixed population of different mother tongue/regional languages		
2.	Difficult to teach few subjects in mother tongue due to terminologies etc.	Subject specific challenges	Subject specific challenges
3.	Shortage of teachers in Home language	Availability of teachers (2)	Availability and Capacity

Availability of trained teachers in

Challenging for a teacher to adopt the local language of other city or

Shortage of technological aid and

Correcting mind set of people who thinks if child is going to school should talk in English only

Availability of study material in

linguistic diversity of our country

Deeper understanding of common

Lack of language semantics

Shortage of necessary Infra

Reimaging and adopting

pedagogical changes

Changing the mindsets

Providing study material

child's mother tongue

language

child's mother tongue

Training educators

other state

tools

4.

5.

6.

7.

8.

9.

10.

Building of

Teachers (4)

Shortage of

Technological

Resources and

other infra (2)

Pedagogical

Challenges

Change in mindset (2)

Availability of

Teaching

Material (2)

Linguistic

Nation

Deeper

diversity of

knowledge

about the home

languages (2)

Capacity building of

teachers (2)

Shortage of

Pedagogical

Challenges

infra (2)

(2)

(2)

of Nation

Technological

Resources and other

Change in mindset

Availability of

Teaching Material

Linguistic diversity

Deeper knowledge

about the home

languages (2)

Table 16: Themes outlining challenges of mother tongue as medium of instruction (Schools)

Table 17: Themes outlining suggestions for use of mother tongue as medium of

instruction (Schools)

Sl No.	1 st order themes	2 nd order themes	3 rd order themes	
1.	Lots of activities, object based or practical teaching will help students to correlate with their own language	Activity based teaching (3)	Activity based teaching (3)	
	Local helpful symbols, practical methods			
	Many activities and practical teaching			
2.	ICT & Digital Media	Use of	Use of	
	technological aid in the language opted for making teaching learning easier	Technological aids (2)	Technological aids (2)	
3.	Sufficient teachers to teach language opted by students	Hiring of teachers	Hiring and capacity building of teachers	
4.	Help of local teachers Capacity building		(3)	
	Fresh teacher training	of teachers (2)		
5.	Mother tongue along with English should go hand in hand	Bilingual Teaching (2)	Bilingual Teaching (2)	
	Bilingual if children do not understand can be explained in mother tongue or regional language			
6.	Appropriate reading material for an effective classroom	Availability of teaching material in	Availability of teaching material in Home Languages	
	New books in Home language	boks in Home language Home Languages		
7.	Research and rediscovery of old texts	Rediscovery and teaching of old text	Rediscovery and teaching of old text	
	Teaching of those texts to students			

Table 18: Themes outlining reasons for impact of dropout rate due to teaching in

mother instruction (Schools)

Sl No.	Themes of reasons for impact of dropout rate due to teaching in mother instruction – Reduction in drop out rate	2 nd order themes
1.	Students from rural/different background are not able to understand the language spoken by the teachers (2)	Better comprehension (5)
	Better understanding in mother instruction	
	Easy understanding in mother tongue	
	Easier to grasp the contents with better understanding	
2.	Easier and fruitful communication	Better cognition (3)
	Able to think in the language they speak	
	Better Teacher & student participation in the classroom	
3.	Feel uncomfortable when taught in language not comfortable with (2)	Comfort of student (5)
	Gradually lose interest in class if not able to comprehend (2)	
	Learning fun and interesting	
	Easier and interesting for students	
4.	Easier and interesting for parents	Comfort of parent
	Themes of reasons for impact of dropout rate due to teaching in mother instruction- No Impact	
1.	Financial crisis at home	
2.	Language is not the reason.	
3.	Very flexible and adopt them fast according to school language	

Table 19: Themes outlining suggestions for successful implementation of imparting education in heterogenous context

Sl No.	Themes	2 nd order themes
1.	A common language to be known to	Capacity Building of
	teacher to communicate and bridge the gap Capacity Building programmes for teachers	teacher (2)
	Teachers help those students through international language like English	
2.	More use of pictures/practical work	Activity Based Teaching
3.	Use of local language as a course subject	Teaching of local language
4.	Use of ICT and Digital medium various tools and aids and technological support to teach audio visual techniques and stories	ICT and technological aids
5.	Translation of home language to English from class 6	Translation

Sl No.	Themes	2 nd order themes
1.	Better understanding (3)	Better Comprehension (8)
	To grab the things in ease manner	
	Easily understanding and better understanding	
	Improved understanding	
	Easier for students to comprehend	
	Simplifying the complex content in simpler way	
2.	Critically think	Enhanced cognitive ability and
	Create freely without the constraints/limitations of knowledge of English grammar	personality development (7)
	Enhance scope for creativity and thinking ability	
	Development of children imagination	
	No rote learning	
	Improvement in students expressing better ideas	
	Increase in student participation	
3.	To connect with our advanced civilisation	Connect to Ancient pride

Table 20: Themes outlining advantages of bilingual teaching of Science and Math

Sl No.	1 st order themes	2 nd order themes	
1.	Even teachers are not well acquainted in both languages equally (2)	Availability of Teachers and Capacity Building	
	Definitely teaching theory part or conceptual part is difficult to teach in home language (2)	in Bilingual (6)	
	Shortage of teachers with desired competency levels		
	Availability of Teachers to teach in bilingual		
2.	Take more time to explain the things	Demand of cognitive	
	Lack of confidence of teacher	ability of teacher (3)	
	Teacher to decide language before explaining the terms		
	To understand the terminology in English whereas explain the concept in mother tongue		
3.	Unavailability of textbooks in regional language (2)	Availability of	
	Textbooks of science and maths in mother tongue as these are either in Hindi or English	textbooks (4)	
	Inadequacy of bilingual instructional materials		
4.	May be boring for children		
	Hesitation to commit mistakes by students		
5.	Shortage of tools and apps for online assistance to students in mother tongue	Shortage of technological tools	
6.	Challenges from textbook/teaching material perspective		
7.	Books teaching materials should be designed after decision on one base language is taken	Curriculum strategy	
	Challenges from comprehension perspective		
1.	An extra burden	Burden on student	
2.	Same concepts in multiple ways tend to create confusion (2)	Confusion for student (2)	
3.	Take more time in understanding	Extra efforts from student	
4.	Initial challenges	Initial challenges	
5.	Difficult to grasp concepts of subjects	Difficulty in	
	Difficult to comprehend the concept by students who are comfortable with English as the medium of instruction	comprehension for English medium students	

Table 21: Themes outlining challenges of bilingual teaching of Science and Math

Sl No.	Ist order themes	2 nd order themes
1.	Mother tongue should cover basics and English larger aspect	Strategy for teaching in bilingual (4)
	Terms should be explained in English	
	Understanding and concept development can be in regional language till class 5	
	Separate teachers for both languages	
2.	Children learn common language English	Teaching of English language
3.	spend the more time in teaching students bilingually	Extra efforts by teacher
4.	Capacity building of teachers in bilingual	Availability and capacity
	Availability of enough teachers to teach in bilingual setup	building of teachers for bilingual setup (2)
5.	To explain the need of teaching in bilingual to the students too, so that they show a better interest	Explain benefit for bilingual teaching to students (2)
	Training of student to smoothly adapt to English at higher levels of learning	
6.	Sufficient technological aid should be devised for the same	Technological aids
7.	Formulation of teaching material in bilingual	Availability of content in
	Contents available on Digital Media in all/most languages and same can be used	bilingual (2)

Table 22: Themes outlining suggestions of bilingual teaching of Science and Math

Sl No.	1 st order themes	2 nd order themes
1.	Better chance to grow in future	Enhanced Future prospects (3)
	Useful for the students to know about more than one language	
	Knowing more than one language is always useful	
2.	Able to understand and learn in their subject matter	Better Comprehension of subject content in native language
3.	Getting to know India better	Enhanced Understanding about country and its
	Help in travelling different states	culture (4)
	Understanding the culture and tradition of the nation by learning 2 native languages	
	To know country where several languages are spoken	
4.	Significant for national integration	Enhancement in spirit of National Unity and
	Imbibing the spirit of unity and patriotism	patriotism (2)

Table 23: Themes outlining advantages of teaching of Three languages

Sl No.	1 st order themes	2 nd order themes	
	Challenges for teaching of three languages		
1.	Burdening with excess languages apart from other subjectsCoping with the language other than mother tongueDifficult to Understand	Difficulty in comprehension and Burden on student (3)	
2.	Teaching is challenging as children are less mature to learn three languages	Difficult to teach	
3.	Availability of well versed teachers in any particular language	Availability of teachers (3)	
	Requirement of language teachers		
	shortage of competent teachers		
4.	Textbooks of language	Availability of textbooks	
5.	shortage of teaching aid and resources	Shortage of teaching aids	
6.	language taught must have practical use	Economic value of language	
	Suggestions for effective implementation of teaching	of three languages	
1.	Giving them more opportunities to use those languages	Utility of language (2)	
	Practical utility then only teacher will be able to create interest		
2.	Languages should be taught by the experts	Hiring of expert language	
	Hiring of teachers from various states with attractive job prospects and scope for exposure in the new setup	teachers (2)	
3.	Relevant tools needed with technological support	Technological aids	
4.	Introduces languages to primary students in graded manner	Introduction of languages in graded manner	

Table 24: Themes outlining challenges and suggestions of teaching of Three languages

Table 25: Themes outlining Challenges in hiring of language teachers and their Capacity

building

5.Job security not provided apart from shifting destination to new institutions in different statesJob security6.Fear of having language load of school circularsAdministrative issue7.Ensuring their competency competency of teacher by schoolsEnsuring competency of teacher by schools7.Suggestions for bilateral arrangement for hiring teachers from other state for effective implementation of three languages formulaLocal graduates/teachers to be given opportunities1.Local graduates/teachers to be given opportunitiesLocal teacher related issues3.Attractive remuneration, job security, provision of proper accommodation, scope of wider exposureIssues related to teachers hired from other states (2)4.The hired teacher should know local language of the state then only better communication can be establishedEffective interesting teachers to5.Effective coordinated efforts between theEffective coordinated efforts between the	Sl No.	1 st order themes	2 nd order themes	
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3.Attractive remuneration, job security, provision of proper accommodation, scope of wider exposureIssues related to teachers hired from other states (2)4.The hired teacher should know local language of the state then only better communication can be establishedIssues related to teachers hired from other states (2)5.Effective coordinated efforts between the	1.		Local teacher related issues	
provision of proper accommodation, scope of wider exposurehired from other states (2)4.The hired teacher should know local language of the state then only better communication can be established5.Effective coordinated efforts between the	2.	Language training of existing teachers		
language of the state then only better communication can be established5.Effective coordinated efforts between the	3.	provision of proper accommodation,		
	4.	language of the state then only better		
states Effective Coordination	5.	Effective coordinated efforts between the states	Effective Coordination	

	Other capacity building challenges for effective implementation of three languages formula		
1.	Teachers' Training Programmes to be organised	Capacity building	
2.	Non-adequacy of resources language teachers and teaching learning materials	Non-adequacy of teaching resources and teaching materials	
3.	Ensuring the knowledge of teachers of other states	Ensuring the knowledge and crisis tackling capability of	
4.	Ensuring creative instincts to tackle crisis situations in this setup	teachers hired from other states (2)	

Table 26: Themes outlining advantages of teaching of Classical and International

languages

Sl No.	1 st order themes	2 nd order themes
1.	Interest about Indian culture Teaching of Sanskrit will connect to our culture (2) Imbibing belongingness and understanding of ones roots	Enhancement in belongingness and understanding about culture (3)
2.	Acquaintance about international culture (2)	Enhancement in acquaintance about culture (2)
3.	 Boon for students pursuing higher education from foreign or professional courses Teaching of foreign language enhance future prospects Open s the doors for opportunities for studying or working abroad Equally training of international languages oneself to face global clientele 	Better future prospects by learning of International languages (4)
4.	Knowing more languages Provides broader perspective and outlook Helps to slow off mental aging and cognitive decline	Enhancement in cognitive ability and broadening of perspective (2)
5.	Helps to gain knowledge about classical languages	Knowledge of language
6.	Ability to unite themselves in diverse population	Enhancement in spirit of unity

Table 27: Themes outlining challenges and suggestions for teaching of Classical and International languages

Sl No.	1 st order themes	2 nd order themes	3 rd order themes	
	Challenges of teaching of Classical and International languages			
1.	Lack of healthy knowledge in teachers	Capacity building	Availability and	
2.	Lack of teachers to teach classical languages (2)	Availability of Teachers (4)	capacity building of teachers (5)	
	Availability of teachers Need to hire experts from respective states to teach classical languages			
3.	Development of an interesting study material Availability of teaching learning material	Availability of interesting teaching material (2)	Availability of interesting teaching material (2)	
4.	Lack of interest in classical languages among most of students A burden due to other subjects	Lack of interest of students in classical languages (2)	Lack of interest of students in classical languages (2)	
5.	Availability of technology enabled apps	Availability of technological aids	Availability of technological aids	
	Suggestions for implementation of teaching of Classical and Internal languages			
1.	Creation of interest by showing our cultural and historical aspects of our country through audio visual aids organise cultural programmes related to that languages Reading literature of those languages, watching shows or debates in them	Enablers for Creation of interest in classical languages (3)	Enablers for Creation of interest in classical languages (3)	
2.	Students can be given exposure by exchange program among statesEasier when we use surrounding things/matterEasier when correlated with surroundings	Exposure by exchange programs (3)	Exposure by exchange programs (3)	
3.	Awareness of scope and prospects of learning classical and foreign languages among students to generate interest	Awareness about prospects of learning classical and international languages	Awareness about prospects of learning classical and international languages	
4.	Publication of research journals in classical languages	Language promotion by publishing	Language promotion by publishing	

Table 28: Technologies being used by schools and suggested technologies to facilitate

teaching

Sl No.	Technologies	Name of technologies	
1.	Technologies presently being used by your school to make the learning more effective	Board, chalk, duster TLM(Teaching Learning Material) (2)	
		Audio-visual aids (3)	
		Computer (2), projector and internet	
		Online group collaborations	
		Digital simulation and models	
		CBPs for training staff in technological domain	
		Regular online tools to devise subject wise quiz, debates	
		subject based fun games	
		Seminars/Webinars	
		Nearpod, padlet, kahoot, polly, Quizzez pear deck	
2.	Technologies which facilitate in teaching of different languages in more effective manner	Audio visual aids	
		Radio, computer, tv	
		Apps for smartphones and tablets	
		Projectors to show pictures/movies/stories	
		Pictures, stories, poems, videos, movies (2)	
		Multimedia	
		E-Board	
		Both modes of learning material- Textbooks and online	
3.		Audio visual technology (2)	

Sl No.	Technologies	Name of technologies	
	Technologies which facilitate in adoption of mother tongue as a medium of instruction in	Providing PPT and PDF in their mother language	
	more effective manner	YouTube, Google.	
		Laptop + projectors	
		Local radio and tv channels	
		Establishment of digital teaching technologies like 'TechNext' which is incorporatable with multiple languages	
		Technologies that help in translation, sentence construction, vocabulary usage and presentation of learnt concepts in mother tongue	
		Translator can be effective for coming generation	
4.	Technologies which facilitate to use a bilingual approach for the students, speaking	Using related pictures to improve vocabulary	
	home language different than medium of instruction	Apps and tools which can make the transition from one to the other language smooth	
		A text to speech and speech to text facilities	
		activities, stories and pictures	
		Mobile, TLM, Digital Media	
		Multimedia	

Sl	Level of	Pay Level/	Dearness	Employer	Total Salary
No.	Teachers	Pay Scale	Allowance	contribution	
			Central DA- 17%	(EPF/NPS) 10% of Basic pay	
1.	PRT	Level 6- Rs			
		35400 to Rs			
		112400	6018	3540	44958
2.	TGT	Level 7- Rs			
		44900 to Rs			
		142400	7633	4490	57023
3.	PGT	Level 8- Rs			
		47600 to Rs			
		151100	8092	4760	60452
4.	Elementary	(Level 6 +			
	School	Level 7)/2			50990

Table 29: Salary Structure of Government Teachers

Sl No.	Item	Requirement of teachers	Salary	Estimated Annual Expenditure
1.	Shortage of teachers in elementary schools	9.08 lakhs	50990	55560 Crore
2.	Requirement of teachers for teaching of language in Govt. primary schools	6.09 Lakhs	44958	32855 Crore
3.	Requirement of teachers for teaching of language in Govt. upper primary schools	29000	57023	1984 Crore
4.	Requirement of teachers for teaching of language in Govt. secondary schools	15000	57023	1026 crore
5.	Requirement of teachers for teaching of language in Govt. upper secondary schools	11000	60452	798 Crore
	Total			92223 Crore

Table 30: Financial outgo on hiring of teachers for implementation of multilingualism

Annexure-II: Questionnaire for school



Date: 31.01.2021

Sir/Ma'am,

Greetings of New Year 2021!

I, P. K. Misra, is working as a Director in Ministry of Communications, New Delhi and presently pursuing my M. Phil. from Indian Institute of Public Administration, New Delhi. Dissertation is an integral part of M. Phil. programme. My dissertation topic is 'Multilingualism aspect of National Education Policy 2020: Implementation challenges in schools and wayforward to post National Education Policy'.

Objective of the research is to explore the challenges in implementation of multilingualism aspect of National Education Policy (NEP) 2020 in schools and suggest the wayforward for its effective implementation.

The National Education Policy (NEP) 2020 has been notified by Govt of India on 29th July' 2020. One of the fundamental principles of NEP 2020 among several others is 'promoting multilingualism and the power of language in teaching and learning" which has been envisaged to guide the education system. NEP 2020 also emphasizes upon use of mother tongue/home language/ local language/regional language in imparting education, wherever possible, until at least Grade 5, but preferably till Grade 8 and beyond. It further states to encourage the teachers to use a bilingual approach for the students, speaking home language different than medium of instruction.

Your long experience and stewardship in education can provide the insights about the implementation challenges of NEP 2020 w.r.t. its Multilingualism aspect and will facilitate me to enrich my dissertation.

The information provided by you will be kept strictly confidential and will be used only for academic purpose at Indian Institute of Public Administration, New Delhi. Questionnaire contains two sections: Section I- information about school, Section II- questions about multilingualism aspect of NEP 2020 and demographics of respondent. Section I and section II of questionnaire contain 8 and 15 questions, respectively.

I, therefore, request your cooperation and participation in responding questionnaire. The questionnaire will take about 30 minutes to respond.

Your sincerely Pradeep Kumar Misra Roll number: 4615 Email: <u>pradeepk.misra@gov.in</u> Mob: 9868218125

Section-I

i. <u>Information about school</u>

Q1. Name of school:

Q2. Address of School:

Instructions: Kindly tick ($\sqrt{}$) most appropriate response to the questions.

Q3. Location of school: Area	🗆 Urban Area	🗆 Rural
Q4. Type of ownership of school:	🗆 Govt.	D Private
Q5. Level of school:	□ Secondary School	\Box Both
Q6. Strength (no of students) of school: □ Less th 1000	an 100 🗆 100-500	□ 500-
\Box More t	han 1000	
Q7. Medium of instruction of school:	🗆 Hindi	□ English
	\Box Other (Pl Specify)	
Q8. Percentage of girl students in school: Less	than 10 🗆 10-20 🗆	20-40

 \Box More than 40

Section-II

A. Questionnaire about implementation of multilingualism aspect of NEP 2020

Q1. Are you aware about the provisions of National Education Policy 2020? Yes/No

(Kindly tick ($\sqrt{}$) most appropriate response)

Q2. NEP 2020 states that young children learn and grasp nontrivial concepts more quickly in their home language/mother tongue. Thus, NEP 2020 provisions that medium of instruction until at least Grade 5, but preferably till Grade 8 and beyond, will be the home language/mother tongue for teaching.

- i. What advantages of this provision of NEP 2020 do you perceive as a teacher/principal?
- ii. Would your school voluntarily adopt mother tongue/home language/ regional language as a medium of instruction? Yes/No (Kindly tick ($\sqrt{}$) most appropriate response)
- iii. If No, why are you not willing to voluntarily adopt mother tongue/home language/ regional language as a medium of instruction? Kindly state reasons.
- iv. Do you think imparting of education in mother tongue/home language would reduce dropout rate in primary schools? Yes/No. Kindly state reasons to support your response.
- v. What are the challenges in implementation of provision of imparting education in mother tongue/home language/ regional language?

vi. What is your suggestion(s) for successful implementation of provision for imparting education in mother tongue/home language/ regional language?

Q3. There may be students speaking different mother tongue in same class due to reasons like their shifting from earlier state of different mother tongue.

i. What is the biggest challenge of teaching class of such students of speaking different home languages? (Kindly tick ($\sqrt{}$) most appropriate response.)

□ Availability of classrooms	Teachers speaking	different	mother
tongues			
Textbooks	hers (Pl specify)		

ii. What is your suggestion(s) for successful implementation of imparting education in context of students speaking different mother tongues/home languages?

Q4. NEP 2020 provisions to teach science and mathematics in bilingual- to enable the students to think and speak about these two subjects both in their home language/mother tongue and in English.

i. What advantages of this provision of NEP 2020 do you perceive as a teacher/principal?

ii. What are the challenges in implementation of provision for teaching science and mathematics in bilingual?

iii. Do you anticipate any challenge in implementation of teaching of science and mathematics in bilingual from textbook/teaching material perspective?

iv. What are the challenges in implementation of provision for teaching of science and mathematics in bilingual from student's perspective like comprehension of concepts?

v. What is your suggestion(s) for successful implementation of provision for teaching of science and mathematics in bilingual?

Q5. NEP 2020 provisions for teaching of three languages, out of which at least two languages should be native to India, in grade 3 and beyond.

i. What advantages of this provision of NEP 2020 do you perceive as a teacher/principal?

- ii. What are the challenges in implementation of provision for teaching of three languages to the students of primary grade?
- iii. What is your suggestion(s) for successful implementation of provision for teaching of three languages to the students?

Q6. NEP 2020 states that major endeavors will be made by both Central and State governments to invest in large numbers of language teachers in all regional language particularly languages mentioned in the Eighth Schedule of the Constitution of India. States from different regions of India may enter into bilateral agreements to hire teachers in large numbers from each other, to satisfy the three-language formula in their respective States.

- i. What are the challenges in hiring of teachers from other states by entering into bilateral agreements between concerned states?
- ii. What is your suggestion(s) for making this bilateral arrangement for hiring teachers from other states for effective implementation of three language formula?

iii. What are other challenges of capacity building of teachers for teaching of languages to students to satisfy three languages formula?

Q7. NEP 2020 envisages for extensive use of technology in teaching of different languages, imparting education in mother tongue.

i. Which technologies are presently being used by your school to make the learning more effective?

ii. Which technologies do you think would facilitate in teaching of different languages in more effective manner?

iii. Which technologies do you think would facilitate in adoption of mother tongue as a medium of instruction in more effective manner?

iv. Which technologies do you think would facilitate teachers to use a bilingual approach for the students, speaking home language different than medium of instruction?

Q8. NEP 2020 provisions that classical languages viz. Sanskrit, Pali, Prakrit will be offered to all students as an option in both private and public schools for learning for at least 2 years from grade 6-12. In addition to Indian languages and English, foreign languages viz. French, German will also be offered to the students at secondary level.

i. What advantages of this provision of NEP 2020 do you perceive as a teacher/principal?

- ii. What are the challenges in implementation of provision of teaching classical languages to the students for at least 2 years from grade 6-12?
- iii. What is your suggestion(s) for teaching of classical languages to the students more effectively?

Q9. Any other suggestion for effective implementation of multilingualism aspect of NEP 2020.

B. Demographic details of respondent:

Q1. Name:

(Kindly tick ($$) most	appropriate respo	nse)			
Q2. Gender: 🗆 N	Iale 🗆 Femal	e 🗌 Oth	er		
Q3. Age (in years):	\Box Less than 25	□ 25-35	□ 35-50		More than 50
Q4. Designation:					
Q5. Contact details:	Email-			Con	tact No
Q6. How much period teacher/principal?	l (in years) did yo	u spend in o	education sy	stem	as a

Annexure-III: Questionnaire for parents (English version)





Date:31.01.2021

Sir/Ma'am,

Greetings of New Year 2021!

I, P. K. Misra, is working as a Director in Ministry of Communications, New Delhi and presently pursuing my M. Phil. from Indian Institute of Public Administration, New Delhi. Dissertation is an integral part of M. Phil. programme. My dissertation topic is 'Multilingualism aspect of National Education Policy 2020: Implementation challenges in schools and wayforward to post National Education Policy'.

Objective of the research is to explore the challenges in implementation of multilingualism aspect of National Education Policy (NEP) 2020 in schools and suggest the wayforward for its effective implementation.

The National Education Policy (NEP) 2020 has been notified by Govt of India on 29th July' 2020. One of the fundamental principles of NEP 2020 among several others is 'promoting multilingualism and the power of language in teaching and learning" which has been envisaged to guide the education system. NEP 2020 also emphasizes upon use of mother tongue/home language/ local language/regional language in imparting education, wherever possible, until at least Grade 5, but preferably till Grade 8 and beyond. It further states to encourage the teachers to use a bilingual approach for the students, speaking home language different than medium of instruction.

Your responses can provide the insights about the implementation challenges of NEP 2020 w.r.t. its Multilingualism aspect and will facilitate me to enrich my dissertation.

The information provided by you will be kept strictly confidential and will be used only for academic purpose at Indian Institute of Public Administration, New Delhi. Questionnaire contains two sections: Section I- questions about multilingualism aspect of NEP 2020, Section II- demographics of respondent. Section I and section II of questionnaire contain 7 and 12 questions, respectively.

I, therefore, request your cooperation and participation in responding questionnaire. The questionnaire will take about 15 minutes to respond.

Your sincerely Pradeep Kumar Misra Roll number: 4615 Email: <u>pradeepk.misra@gov.in</u> Mob: 9868218125

Section-I

Q1. Are you aware of National Education Policy 2020? Yes/No (Kindly tick ($\sqrt{}$) most appropriate response.)

Q2. NEP 2020 states that young children learn and grasp nontrivial concepts more quickly in their home language/mother tongue. Thus, medium of instruction until at least Grade 5, but preferably till Grade 8 and beyond, will be the home language/mother tongue.

i. What advantages of this provision of NEP 2020 do you perceive as a parent?

ii. What are the challenges in implementation of this provision of NEP 2020?

Q3. NEP 2020 provisions for teaching of three languages, out of which at least two languages should be native to India, in grade 3 and beyond.

i. What advantages of this provision of NEP 2020 do you perceive as a parent?

ii. What are the challenges in implementation of this provision of NEP 2020?

Q4. NEP 2020 provisions to teach science and mathematics in bilingual- to enable the students to to think and speak about these two subjects both in their home language/mother tongue and in English.

i. What advantages of this provision of NEP 2020 do you perceive as a parent?

ii. What are the challenges in implementation of this provision of NEP 2020?

Q5. Does your child study in private school? Yes/No (Kindly tick ($\sqrt{}$) most appropriate response.)

- i. If yes. What advantages do you perceive in educating your child in private schools?
- ii. Do you perceive implementation of multilingualism aspect of NEP 2020 reduce gap in standard of education between Govt School and Private School; and improve equity and inclusion in society?

Q6. Would you like to get your school educated in mother tongue instruction? If not. Why?

- Q7. Does your child study tuition? Yes/No (Kindly tick ($\sqrt{}$) most appropriate response.)
 - i. If Yes. How do you perceive these provisions of NEP 2020 i.e. imparting education in mother tongue, imparting education of Science and Mathematics in bilingual- mother tongue and English, teaching of three languages, from the perspective of impacting requirement of tuition?

 ii. If No. How do you perceive these provisions of NEP 2020 i.e. imparting education in mother tongue, imparting education of Science and Mathematics in bilingual- mother tongue and English, teaching of three languages from the perspective of requiring tuition for study of students?

Section-II

Q1. Name:
(Kindly tick ($$) most appropriate response.)
Q2. Gender: \Box Male \Box Female \Box Other
Q3. Age (in Years): □ Less than 25 □ 25 □ 25-35 □ 35-50 □ Above 50
Q4. Qualification: \Box Less than Graduate \Box Graduate \Box Postgraduate
☐ Above postgraduate
Q5. Location of residence: 🗆 Urban Area 🗆 Rural Area
Q6. Type of Employment: \Box Govt. \Box Private \Box Business
Q7. Annual Income (in Lakhs): \Box Less than 1.5 \Box 1.5- 3 \Box 3-5 \Box 5- 10 \Box More than 10
Q8. Grade in which child 1 is studying:
Q9. Does/did your child 1 study in private school? Yes/No
Q10. Grade in which child 2 is studying:
Q11. Does/did your child 2 study in private school? Yes/No
Q12. Grade in which child 3 is studying:
Q13. Does/did your child 3 study in private school? Yes/No

राष्ट्रीय शिक्षा नीति 2020 की कार्यान्वयन चुनौतियों पर प्रश्नावली

मैं 'राष्ट्रीय शिक्षा नीति 2020 का बहुभाषावाद पहन्तु, स्कूलों में कार्यान्ययन चुनौतियों और राष्ट्रीय शिक्षा नीति को लागू करने के आगे का रास्ता विषय पर खोध प्रबंध कर रहा हूँ।

अनुसंधान का उद्देश्य स्कूलों में राष्ट्रीय शिक्षा नीति (एनईपी) 2026 के बहुभाषावाद पहलू के कार्यान्वयन में अले वाली चूनौतियों का पता लगाना है और इसके प्रभावीं कार्यान्वयन के लिए उपयोगी सुझाव देना है। राष्ट्रीय शिक्षा नीति (एनईपी) 2020 को भारत सरकार द्वारा 29 जुलाई, 2020 को अधिसुचित किया गया है। कई अन्य एनईपी 2020 के मूल सिद्धांतों में से एक है बहुभाषावाद को बढ़ावा देना और शिक्षण और सीखने में भाषा की शक्ति 'जिसकी परिकल्पना शिक्षा प्रणाली का मार्गदर्शन करने के लिए की गई है। एनईपी 2020 शिक्ष प्रदान करने में, जहाँ तक संभव हो, कम से कम ग्रेड 5 तक लेकिन बेहतर यह होगा कि यह प्रेड 8 और उससे आगे तक भी हो, मातृभाषा / घरेलू भाषा / स्थानीय भाषा / क्षेत्रीय भाषा के उपयोग पर जोर देता है। एनईपी 2020 शिक्षकों को छात्रों के लिए,जिनकी' पर की भाषा/मालु-भाषा शिक्षा के माच्यम से भिन्न है, द्विभाषी रष्टिकोण उपयोग करने के लिए प्रोत्साहित करती है।

आपके द्वारा दी गई जानकारी को कड़ाई से गोपनीय रखा जाएगा और इसका उपयोग केवल भारतीय लोक प्रशासन संस्थान, नई दिल्ली में अकादमिक उद्देश्य के लिए किया जाएगा।

Required

क्या आप राष्ट्रीय थिक्षा नीति 2020 से अवगत हैं? *

Mark only one oval.



 राष्ट्रीय शिक्षा मीति 2020 के इस प्रावधान के क्या लाभ आप एक अभिभावक के रूप में अनुभव करते हे? *

एनईपी 2020 में कहा गया है कि होटे बजे अपनी प्रदेख भाषा / मातृभाषा में सार्थक अक्षधरणओं को अधिक तेजी से हैं जीखते हैं और समझ लेते हैं। इस प्रकार, जहाँ तक संभव हो, कम से कम प्रेड 5 तक लेकिन बेहतर पह होगा कि यह प्रेज 8 और उससे आगे तक भी हो, फिक्षा का मात्राम, घर की भाषा / मातृभाषा / स्वायिध भाषा / झेनीय भाषा होगी। राष्ट्रीय शिक्षा नीति 2020 के इस प्रावधान को लागू करने में क्या चुनौतियाँ हैं? *

गलईनी 2020 में कहा गया है कि होटे बच्चे अपनी परेतू आषा / मातृआषा में सार्थक अवधारणाओं करे अधिक तेजी से है सीखते हैं और समझ तेते हैं। इन प्रकार, जहाँ तक संभग्न हो, कम के कम प्रेंह 5 तक लेकिन बेहतर पह होगा कि वह प्रेंत 8 और उससे आग तक भी हो, पिक्ष का माधाम, घर की भाषा / मातृआषा / फानीप भाषा / हेतीप आषा होनी।

राष्ट्रीय शिक्षा मीति 2020 के इस प्रावधान के क्या लाभ आप एक अभिभावक के रूप में अनुभव करते.
 87 *

श्रष्ट्रीय मिक्षा नीति 2020 में सीन आषाली को डेड 3 और उसके बाद भी पढ़ाने के प्रातधान हैं, जिनमें से कम से कम दो दो भाषाडुं भारतीय भाषाई हो।

 राष्ट्रीय शिक्षा नीति 2020 के इस प्रावधान को लागू करने में क्या चुनौतियाँ हैं? * राष्ट्रीय शिक्षा नीति 2020 में तीन भाषाओं को प्रेंड 3 और उसके बद भी पढ़ाने के प्रवधान है, जिनमें से कम से कम दो दो भाषाएँ भारतीय भाषाएँ हो।

6.	राष्ट्रीय शिक्षा नीति 2020 के इस प्रावधान के क्या लाभ आप एक अभिभावक के रूप में अनुभ	व करते
	★ 1	5770-6772 5770-6772

रनाची 2020 में खात्री को विज्ञान और गणित द्विभाषा में प्रदाने का प्रायधान है	किसरे छात्र इन ही चिषयों के बारे में अपनी घरेलू
भाषा / मातृभाषा और अंग्रेजी में सोचने और बोलने में सक्षम हो चके।	

7. राष्ट्रीय शिक्षा मीति 2020 के इस प्रावधान को लागू करने में क्या चुनीतियाँ हैं? * इनईमें 2020 में कहा को लिहान और प्रभात दिभाष में पढ़ाने का प्रचयान है जिससे कार इन दो निषयों के बारे में अपनी घरेख़ भाषा / पालुभाषा और अंग्रेज में बोचने और बेलने में शक्षप हो चर्क।

8. क्या आपका बच्चा निजी स्कूल में पढ़ता है? *

Mark only one oval.



यदि पिछले प्रश्न के लिए 'हाँ है, निजी स्कूलों में अपने बच्चे को शिक्षित करने में आपको क्या फायदे हैं?

10. क्या आप अनुभव करते हैं कि NEP 2020 के बहुभाषावाद पहलू के कार्यान्वयन से सरकारी स्कूल और निजी स्कूल के बीच शिक्षा के मानक के अंतर को कम करने, और समाज में इक्रिटी और समावेशन में सुधार होगा।

 क्या आप अपने बच्चे को मातृभाषा शिक्षा में शिक्षित करना चाहेंगे? अगर नहीं, क्यों? (अगर 'हाँ कृष्णा लिखें 'संबंधित नहीं'।) "

12. क्या आपका बच्चा टपूछन पढ़ता है? *

Mark only one oval.



13. यदि पिछले प्रश्न के लिए 'हाँ'है, राष्ट्रीय शिक्षा नीति 2020 के इन प्रावधानों को- मातृभाषा में शिक्षा प्रदान करना, द्विभाषी में विज्ञान और गणित की शिक्षा प्रदान करना- मातृभाषा और अंग्रेजी, तीन भाषाओं का शिक्षण: ट्यूशन की आवस्पकता के परिप्रेक्ष्य में आप केसे देखते हैं? (अगर 'नहीं' कृष्या लिखें 'संबंधित नहीं ।) *

14. यदि पिछले प्रश्न के लिए 'नहीं'हे, राष्ट्रीय शिक्षा नीति 2020 के इन प्रावधानों को- मातृभाषा में शिक्षा प्रदान करना, द्विभाषी में विज्ञान और गणित की शिक्षा प्रदान करना- मातृभाषा और अंग्रेजी, तीन भाषाओं का शिक्षण: छात्रों के अध्ययन के लिए ट्यूरान की आवश्यकता के परिप्रेक्ष्य में आप केसे देखते हैं?(अगर 'हाँ' कृष्या लिखें संबंधित नहीं ।) *

उत्तर देने वाले का विवरण

15. आपका नाम :

16. आपकी मेल आई डी *

17. आपका लिंग *

Mark only one oval.

1997

ा महिता

ाष्ट्र 🔘

18. आपकी आयु (यर्षों में) *

Mark only one oval.

- 🔿 25 से कम
- 25-35
- 35-50
- 🔵 ५० से अधिक
- 19. आपकी योग्यता *

Mark only one oval.

🔵 स्नातक से कम

🔘 स्नातक

🔵 स्नातकोत्तर

🔘 स्नातकोत्तर में अधिक

20. आपके निवास का स्थान *

Mark only one oval.

ि शहरी

ा ग्रमीष

21. आपके रोजगार का प्रकार *

Mark only one oral.

- 🔵 सरकारी नौकरी
- 🔘 मिन्दी में करो
- ः व्यापार
- ্র সন্দ

22. आपकी वार्षिक आय (लाखों में) *

Mark only one oval.

C	🗋 1.5 से कम
C	1.5-3
Ē	3-5
C	5-10
Ċ) 10 से अधिक

23. ग्रेड जिसमें आपका बच्चा 1 पढ़ रहा है? *

24, वया आयका बच्चा 1 निजी स्कूल में पड़ता है? *

Mark only one oval.
ার
💭 नहीं

25. ग्रेंड जिसमें आपका दूसरा बच्चा पड रहा है? *

26. क्या आपका दूसरा बच्चा निजी स्कूल में पढ़ता है? *

Mark only one oval.

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27. ग्रेड जिसमें आपका तीसरा बच्चा पढ़ रहा है? *

28. क्या आपका दूसरा बच्चा निजी स्कूल में पढ़ता है? *

Mark only one oval.

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