National Education Policy, 2020

Curriculum and Pedagogic Reform
School Education for Holistic Development

Background Paper
For
Teacher’s Fest

National Council of Educational Research & Training, Delhi
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Background Note

1. Introduction

Curriculum is the core of school education. All the activities in school revolves around its curriculum. It encompasses syllabus, textbooks, teaching-learning processes, sports, games, physical education, dance, music, assessment and examination activities, etc. which lead to learning outcomes of children in school.

In view of providing directions to school curriculum, National Curriculum Framework is prepared at the National level which draws its insights and perspectives from the National Education Policies.

In our country, the mechanism of developing National Curriculum Framework is in place. This is developed by the National Council of Educational Research and Training (NCERT) involving educational institutions in state/UTs and various other stakeholders. This National Curriculum Framework including research-based recommendations on curriculum, pedagogy, assessment and examination serves as broad guidelines for the entire school education in the country. This National Curriculum Framework is centred on the common core consisting of Constitutional Values, Scientific Temper, Struggle for Freedom and National Priorities envisioned from time to time. This Curriculum Framework is also seen as a mechanism for strengthening the National System of Education addressing the diversity of our country. Till now, four curriculum frameworks have been brought out i.e., in 1975, 1988, 2000 and 2005. Curriculum Framework of 1975, was developed as a follow-up of National Policy on Education, 1968. Further, curriculum framework of 1988, 2000 and 20005 were based on the perspective of the National Policy on Education 1986 and Programme of Action, 1992. In 2009, the Right of Children to Free and Compulsory Education Act mandated all States / UTs to implement the National Curriculum Framework. A gazette notification of the Government of India in 2010 had declared NCERT as an academic authority for taking decisions regarding curriculum and evaluation procedures at the elementary education stage.

At present, approved by the Central Advisory Board on Education (CABE), National Curriculum Framework -2005 is the latest framework in the country, which is based on 10+2 system of education. It focuses is on construction of knowledge by the child, moving away from rote methods, reduction of information load, integration of concerns such as gender, inclusion, sensitivity towards environment, Constitutional Values, etc. across subject areas. Though it focusses on learning through experiences, however, it does not take stand on reducing content to the core content only to provide space for sports, arts, etc. adequately. NCF-2005, lack adequate emphasis on flexibility in course choices. Rather than providing brief and separate courses to promote culture and traditional practices, NCF-2005 prefers bringing child’s experiences in the classroom on these aspects.
Further, classroom process studies conducted by the NCERT as a follow-up of this framework; interaction with various stakeholders time to time on the issues of implementation of the NCF-2005; and during 63 consultations with regard to NEP at the grass root level, which NCERT had conducted in the early stage of the policy, revealed some positive findings from the field such as increased sensitivity in students towards environmental concerns, gender related concerns and more space for students’ questions in the classroom, etc. The findings also revealed textbook dominated culture in classroom with very little integration of learner centred activities, more frequent traditional paper-pencil tests, lack of material and transactions related to knowledge of culture and tradition and time allocated to sports and arts often getting utilised for teaching of subjects like science, mathematics, etc.

Now, After 34 years of the 1986 Education Policy, NEP, 2020 has been brought out by our country which provides direction for curriculum and pedagogic reform in the country taking care of contemporary societal contexts and needs as well as national priorities.

2. NEP 2020 – Curriculum and Pedagogy Reform

In the National Education Policy, 2020, the key overall thrust of curriculum and pedagogy reform across all stages is to move the education system towards real understanding and towards learning how to learn - and away from the culture of rote learning as is largely present today.

Aiming at Holistic Development of Learners, the Policy focuses on

- Building character and creating holistic and well-rounded individuals equipped with the key 21st century skills including cognitive skills.
- Manifestation of knowledge, which is a deep-seated treasure within an individual, as perfection.
- Moving towards real understanding and learning how to learn - and away from the culture of rote learning
- Developing learners into a good, successful, innovative, adaptable, and productive human beings in today’s rapidly changing world

This aim may be achieved with following three strategies-

- Reorienting and revamping all aspects of curriculum and pedagogy
- Identifying specific sets of skills and values across domains for integration and incorporation at each stage of learning, from pre-school to higher education.
- Developing curriculum frameworks and transaction mechanisms for ensuring that these skills and values are imbibed through engaging processes of teaching and learning.
2.1 Reorienting and Revamping Curriculum and Pedagogy

2.1.1 Revamping Pedagogical Structure

The NEP, 2020 recommends reconfiguration of curricular and pedagogical structure of school education to make it responsive and relevant to the developmental needs and interests of learners at different stages of their development, corresponding to the age ranges of 3-8, 8-11, 11-14, and 14-18 years, respectively.

It suggests a design of 5+3+3+4 which will guide the curriculum framework of school education on curriculum and pedagogical structure, which may be understood as follows-

a. **Foundational Stage** – The minimum entry age of child into a school may be 3 years. The first five years of a child in a school is termed as foundational stage which is further divided in two parts, that is, 3 years of Anganwadi /pre-school + 2 years in primary school in Grades 1-2; both together covering ages 3-8. The Foundational Stage will consist of five years of flexible, multilevel, play/activity-based learning and the curriculum and pedagogy of ECCE as mentioned in the section on ECCE.

b. **Preparatory Stage**- This stage will include grades 3-5, covering ages 8-11. Earlier it was termed as late primary stage.

The Preparatory Stage will comprise three years of education building on the play, discovery, and activity-based pedagogical and curricular style of the Foundational Stage, and will also begin to incorporate some light text books as well as aspects of more formal but interactive classroom learning, in order to lay a solid groundwork across subjects, including reading, writing, speaking, physical education, art, languages, science, and mathematics.

c. **Middle Stage or Upper primary stage (in use presently)** will include Grades 6-8, covering ages 11-14)

The Middle Stage will comprise three years of education, building on the pedagogical and curricular style of the Preparatory Stage, but with the introduction of subject teachers for learning and discussion of the more abstract concepts in each subject that students will be ready for at this stage across the sciences, mathematics, arts, social sciences, and humanities. Experiential learning within each subject, and explorations of relations among different subjects, will be encouraged and emphasized despite the introduction of more specialized subjects and subject teachers.

d. **Secondary Stage**- Grades 9-12 will be covered in two phases, i.e., 9 and 10 in the first and 11 and 12 in the second, covering ages 14-18.

The Secondary Stage will comprise of four years of multidisciplinary study, building on the subject-oriented pedagogical and curricular style of the Middle Stage, but with greater depth, greater critical thinking, greater attention to life aspirations, and greater flexibility and student choice of subjects. In particular students would continue to have the option of
exiting after Grade 10 and re-entering in the next phase to pursue vocational or any other courses available in Grades 11-12, including at a more specialized school, if so desired.

The above-described stages are purely curricular and pedagogical, designed to optimize learning for students based on the cognitive development of children; they will inform the development of National and State curricula and teaching-learning strategies at each stage, but parallel changes to physical infrastructure will not be required.

2.2 Reorienting Curriculum

2.2.1 Reducing curriculum content to enhance essential learning and critical thinking

Curriculum content need to be reduced in each subject to its core essentials, to make space for critical thinking and more holistic, inquiry-based, discovery-based, discussion-based, and analysis-based learning. The mandated content will focus on key concepts, ideas, applications, and problem-solving. Teaching and learning will be conducted in a more interactive manner; questions will be encouraged, and classroom sessions will regularly contain more fun, creative, collaborative, and exploratory activities for students for deeper and more experiential learning.

2.2.2 Adopting Experiential learning as a Pedagogy

In all stages, experiential learning will be adopted, including hands-on learning, arts-integrated and sports-integrated education, story-telling-based pedagogy, among others, as standard pedagogy within each subject, and with explorations of relations among different subjects. To close the gap in achievement of learning outcomes, classroom transactions will shift, towards competency-based learning and education. The assessment tools (including assessment “as”, “of”, and “for” learning) will also be aligned with the learning outcomes, capabilities, and dispositions as specified for each subject of a given class.

Art-integration is a cross-curricular pedagogical approach that utilizes various aspects and forms of art and culture as the basis for learning of concepts across subjects. As a part of the thrust on experiential learning, art-integrated education will be embedded in classroom transactions not only for creating joyful classrooms, but also for imbibing the Indian ethos through integration of Indian art and culture in the teaching and learning process at every level. This art-integrated approach will strengthen the linkages between education and culture.

Sports-integration is another cross-curricular pedagogical approach that utilizes physical activities including indigenous sports, in pedagogical practices to help in developing skills such as collaboration, self-initiative, self-direction, self-discipline, teamwork, responsibility, citizenship, etc. Sports-integrated learning will be undertaken in classroom transactions to help students adopt fitness as a lifelong attitude and to achieve the related life skills along with the levels of fitness as envisaged in the Fit India Movement. The need to integrate sports in education is well recognized as it serves to foster holistic
development by promoting physical and psychological well-being while also enhancing cognitive abilities.

2.2.3 Empowering students through flexibility in course choices

Students will be given increased flexibility and choice of subjects to study, particularly in secondary school - including subjects in physical education, the arts and crafts, and vocational skills. There will be no hard separation among ‘curricular’, ‘extracurricular’, or ‘co-curricular’, among ‘arts’, ‘humanities’, and ‘sciences’, or between ‘vocational’ or ‘academic’ streams. Subjects such as physical education, the arts and crafts, and vocational skills, in addition to science, humanities, and mathematics, will be incorporated throughout the school curriculum. Each of the four stages of school education, may consider moving towards a semester or any other system that allows the inclusion of shorter modules.

2.2.4 Multilingualism to be seen as a Resource for Learning

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. Thereafter, the home/local language shall continue to be taught as a language wherever possible. This will be followed by both public and private schools. High-quality textbooks, including in science, will be made available in the home languages/mother tongue. All languages will be taught in an enjoyable and interactive style. States may enter into bilateral agreements to hire teachers from each other. The three-language learned by children will be the choices of States, regions, and of the students, so long as at least two of the three languages are native to India. Efforts to prepare 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. Indian Sign Language (ISL) will be standardized across the country, and National and State curriculum materials developed, for use by students with hearing impairment.

2.2.5 Curricular Integration of Essential Subjects, Skills and Capacities

- Certain subjects, skills, and capacities will be emphasized in school: such as, scientific temper and evidence-based thinking; creativity and innovativeness; sense of aesthetics and art; oral and written communication; health and nutrition; physical education, fitness, wellness, and sports; collaboration and teamwork; problem solving and logical reasoning; vocational exposure and skills; digital literacy, coding, and computational thinking; ethical and moral reasoning; etc.

- Introduction of contemporary subjects such as Artificial Intelligence, Design Thinking, Holistic Health, Organic Living, Environmental Education, Global Citizenship Education (GCED), etc. at relevant stages

Proposed Cross Cutting Skill Set in NEP, 2020 for Curriculum
<table>
<thead>
<tr>
<th>Skill Set(Cross Cutting)</th>
<th>Subject Areas to be undertaken at relevant stages to develop these skills</th>
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<tbody>
<tr>
<td>• scientific temper and evidence-based thinking;</td>
<td>• Core Subject Areas such as Science, Mathematics, Social Sciences and Languages</td>
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<tr>
<td>• creativity and innovativeness;</td>
<td>• Artificial Intelligence,</td>
</tr>
<tr>
<td>• sense of aesthetics and art;</td>
<td>• Design Thinking,</td>
</tr>
<tr>
<td>• oral and written communication;</td>
<td>• Holistic Health,</td>
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<td>• physical education, fitness, wellness, and sports;</td>
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<tr>
<td>• ethical and moral reasoning;</td>
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<tr>
<td>• knowledge and practice of human and Constitutional values;</td>
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<td>• gender sensitivity;</td>
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<td>• fundamental duties;</td>
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<td>• citizenship skills and values;</td>
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<td>• knowledge of India;</td>
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<td>• environmental awareness including water and resource conservation,</td>
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<td>• sanitation and hygiene;</td>
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<td>• current affairs and knowledge of critical issues facing local communities, states, the country, and the world.</td>
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- Mathematics and computational thinking to be given increased emphasis throughout school years. Activities involving coding to be introduced in Middle Stage

- Bagless days will be encouraged throughout the year for various types of enrichment activities involving arts, quizzes, sports, and vocational crafts.

2.2.6 Knowledge of India

Curriculum will include knowledge from ancient India to modern India as well as future aspirations. This will be incorporated in an accurate and scientific manner throughout the school curriculum wherever relevant. Indian Knowledge Systems, including tribal knowledge and indigenous and traditional ways of learning, will be covered. Specific courses in tribal ethno-medicinal practices, forest management, traditional (organic) crop cultivation, natural farming, etc. will also be made available. Video documentaries on inspirational luminaries of India, ancient and modern, in science and beyond. Students will be given a logical framework for making ethical decisions at a young age.

In later years, this would then be expanded along themes of cheating, violence, plagiarism, littering, tolerance, equality, empathy, etc., with a view to enabling children to embrace moral/ethical values in conducting one's life. Traditional Indian values and all basic human and Constitutional values will be developed in all students. Excerpts from the Indian Constitution will also be considered essential reading for all students.
Basic training in health, including preventive health, mental health, good nutrition, personal and public hygiene, disaster response and first-aid will also be included in the curriculum, as well as scientific explanations of the detrimental and damaging effects of alcohol, tobacco, and other drugs.

**Proposed Cross Cutting Values in NEP, 2020 for Curriculum**

<table>
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<tr>
<th>Cross cutting Ethics and Values</th>
<th>Resources and Activities for Developing these Values</th>
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<tbody>
<tr>
<td>seva, ahimsa, swachhhata, satya, nishkam karma, shanti, sacrifice, tolerance, diversity, pluralism, righteous conduct, gender sensitivity, respect for elders, respect for all people and their inherent capabilities regardless of background, respect for environment, helpfulness, courtesy, patience, forgiveness, empathy, compassion, patriotism, democratic outlook, integrity, responsibility, justice, liberty, equality, and fraternity Ethical reasoning, Traditional Indian values All basic human and Constitutional values</td>
<td>Core Subjects Panchatantra, Jataka, Hitopadesh, other fun fables Inspiring tales from the Indian tradition and learn about their influences on global literature. Excerpts from the Indian Constitution will also be considered essential reading for all students. Basic training in health, including preventive health, mental health, good nutrition, personal and public hygiene, disaster response and first-aid will also be included in the curriculum, as well as scientific explanations of the detrimental and damaging effects of alcohol, tobacco, and other drugs.</td>
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**2.3 Developing curriculum frameworks and transaction mechanisms**

**2.3.1 National Curriculum Framework for School Education (NCFSE)**
The formulation of a new and comprehensive National Curricular Framework for School Education, NCFSE 2020-21, will be undertaken by the NCERT. The NCFSE document shall henceforth be revisited and updated once every 5-10 years, taking into account frontline curriculum.

2.3.2 National Textbooks with Local Content and Flavour

All textbooks shall aim to contain the essential core material on a national level, but at the same time contain any desired nuances and supplementary material as per local contexts and needs. States will prepare their own curricula which may be based on the NCFSE prepared by NCERT to the extent possible and prepare textbooks (which may be based on the NCERT textbook materials to the extent possible), incorporating State flavour and material as needed. Concerted efforts, through suitable changes in curriculum and pedagogy, will be made to significantly reduce the weight of school bags and textbooks.

2.3.3 Transforming Assessment for Student Development

All students will take school examinations in Grades 3, 5, and 8 also, which will test achievement of basic learning outcomes, and application of knowledge in real-life situations. The Board exams for Grades 10 and 12 will be continued. Board exams will be made ‘easier’, as they will test primarily core capacities/competencies rather than months of coaching/memorization. Boards may over time also develop further viable models of Board Exams, such as - annual/semester/modular Board Exams; offering all subjects beginning with mathematics, at two levels; two parts exams or objective type and descriptive type. With regard to all of the above, guidelines will be prepared by NCERT, in consultation with SCERTs, Boards of Assessment (BoAs), and PARAKH, the proposed new National Assessment Centre etc.,

The progress card of all students for school-based assessment will be redesigned. The progress card will be a holistic, 360-degree, multidimensional report that reflects in great detail the progress and the uniqueness of each learner in the cognitive, affective, and psychomotor domains. The progress card will include self-assessment, peer assessment and teacher assessment. Teachers to be prepared for a transformation in the assessment system by the 2022-23 academic session.

A National Assessment Centre, PARAKH (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development) to be set up as a standard-setting body for setting norms, standards, and guidelines for student assessment and evaluation for all recognized school boards.

The National Testing Agency (NTA) will offer a high-quality common aptitude test, as well as specialized common subject exams in the sciences, humanities, languages, arts, and vocational subjects, at least twice every year for university entrance exams.
2.3.4. Support for Gifted Students/Students with Special Talents

NCERT and NCTE will develop guidelines for the education of gifted children. B.Ed. programmes may also allow a specialization in the education of gifted children. Teachers will encourage students with singular interests and/or talents in the classroom by giving them supplementary enrichment material and guidance. Olympiads and competitions in various subjects will be conducted across the country. Online apps with quizzes, competitions, assessments, enrichment materials, and online communities for shared interests will be developed as group activities. Schools will develop smart classrooms, in a phased manner.

3 Implementation Modalities

NEP’s recommendations in the area of curriculum and pedagogy provide a roadmap for transforming the whole school system in the 21st Century. Implementation modalities with regard to policy need to include conduct of intense advocacy and awareness programmes by the national and state level educational organisins for various stakeholders teachers, teacher educators, educational administrators, parents, professionals, students, etc. This will help in creating an environment for the smooth implementation of the policy.

Further, timely development of National Curriculum Framework for School Education need to be taken up at the national level addressing pedagogic considerations for new structure 5+3+3+4, multilingualism, experiential learning, culture and traditions of our country, assessment and examination reform. This must be followed by development of model syllabi and textbooks in core subject areas by the NCERT in consultation with states/UTs. Efforts can also be made for developing syllabi and textbooks in new subject areas including vocational education relevant for across the states/UT with the help of institutions such as IIT, AICTE, UGC, NSD, National Skill Council (NSC) keeping in view the requirement in the work sector and for higher education.

Development of Teacher Support Material and Training material for the Capacity Building of State Resource Groups on new NCFSE, syllabus and textbooks will also be required as School heads and Teachers are the most important stakeholders for the implementation of this policy. Further, development of variety of model Course Material and guidelines on Language and Culture, Knowledge of India, etc., to be introduced at different stages need to be taken up at the National and the state level. Guidelines for the education of gifted children in consonance with the policy perspectives need to be brought out to provide directions to the school system on not only addressing needs of these children but also to harness their potential and talent for the country.

State/UTs will have to actively participate in bringing curriculum and pedagogic structural reform. They need to have intensive consultation within their states/UTs with various stakeholders on the implementation modalities of the proposed pedagogic
structure of 5+3+3+4. They have also to identify local needs and contexts to be included in the syllabus and textbooks for local flavour. Selection of themes and content related to knowledge traditions to be included in textbooks in core subject areas need to be done with the help of teachers and teacher educators. Identification of new subject areas as per the state educational needs in consultation with various professional and higher education institutions is to be initiated. Consultations with teachers and board officials on assessment and examination reform for providing inputs to the NCERT need to be taken up as early as possible. Development of syllabi and textbooks in new subject areas relevant for across the states/UT with the help of institutions such IIT, AICTE, UGC, NSD, NSC keeping in view the requirement in the work sector and for higher education need to be discussed at the state level involving NCERT. Development of Teacher Support Material and Training material for the Capacity Building of teachers following NCERT’s model syllabus and textbooks will also be done by the states/UTs. In view of promoting multilingualism, variety of material in regional languages for the use of students at different stages need to be brought out.