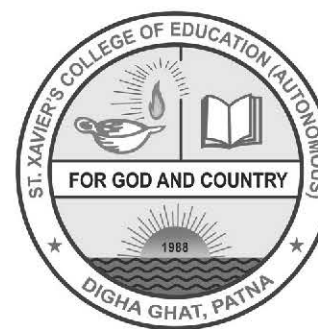


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Teacher Education in NCFSE (2023)

Abstract

As soon as we received our third National Education Policy in 2020, we felt the need of National Curriculum Framework to have a curriculum to transact the policy in content and spirit. We found National Curriculum Framework for Foundation Stage (NCFFS) on 20.10.2022, and National Curriculum Framework for School Education (NCFSE) on 20.08.2023. We are still waiting for National Curriculum Framework for Adult Education (NCFAE), and National Curriculum Framework for Teacher Education (NCFTE) to implement NEP (2020) in totality.

NCFSE (2023) has replaced NCF (2005) meant for school Education. As teacher and teacher education are integral part of the education, at least for formal system of education, in this NCF (2023) teacher and teacher education are everywhere, but at some point, it is more focused. Creating Supportive Ecosystem under the Part-E of the NCF (NCF is having total five parts) contains four sub-heads as "Capacity Building for Implementation", "Ensuring an Appropriate Environment for Learning", "Enabling and Empowering Teachers", and "Community and Family Engagement". Chapter-3 under the head "Enabling and Empowering Teachers" is directly addressing issues and concerns of Teacher and Teacher Education. This chapter-3 deals with teacher and teacher education with the help of eight sections (Section 3.1 to section

3.8). *All the sections particularly address teacher and teacher education by considering concepts like Ensuring an Enabling Environment for Teacher, Teacher Autonomy and Accountability, Pupil-Teacher Ratio, Career and Professional Development Opportunities, In-service Teacher Education, Pre-Service Teacher Education, Head Teachers and School Principals, and Role of Academic and Administrative Functionaries. The document is comprehensive and capable of implementing NEP (2020), what is needed more is to investigate the preparation of teachers and teacher educators.*

Key Words: NCFSE, Teacher, In-service, Pre-service, Teacher Education, Autonomy, Accountability, 5+3+3+4, Enabling Teacher.

Backdrop

The National Curriculum Framework for School Education (NCFSE) was released on August 23rd, 2023, by the union education minister Dharmendra Pradhan. The NCFSE (2023) follows the guidelines and recommendations of the National Education Policy (2020). To finalize the NCF-2023, a mandate document was released on 29th April 2022 by the union education minister Dharmendra Pradhan at a function held at the Indian Institute of Science, Bengaluru. During this occasion at Bengaluru, he reflected that the NEP (2020) is the Philosophy, NCF is the Pathway, and the Mandate document released today is the constitution to champion the changing demands of the 21st century and positively impact the future. National Curriculum Framework for School Education (2023) serves as a comprehensive guideline for designing syllabi, textbooks, and teaching practices across India. The NCFSE (2023) is an integral part of the National Education Policy (2020) which aims to foster a holistic, inclusive, and multidisciplinary approach to education. NCFSE (2023) has been developed keeping in view and getting as foundation from NCFSE (2022) to cover all stages of school education from ages 3 years to 18 years. NCFSE (2023) expands upon NCFSE (2022) to cover entire structure of school education planned in NPE (2020) as 5+3+3+4. NCFSE (2022) focuses primarily on the foundational stage, i.e., Early Childhood Care and Education covering 3-8 years of age and first part of 5 years duration of the NEP (2020)' specified structure of 5+3+3+4, meant for Beginning to Class-2.

National Curriculum Framework for School Education (2023) starts with a note in the name of "From the Chair" to express the Concern, Process and Basis of NCFSE (2023). As known to us the chairman of the National Screening Committee for National Curriculum Frameworks submits NCFSE (2023) on behalf of the screening committee to the union education minister Shree Dharmendra Pradhan. From the Chair Note finds this framework developed to attain or implement NEP

(2020) which is based on or integrated with the NCFSE (2022). The chair claims it as 3-18 years, and not from 9-18 years stressing that the foundational aspect has already been submerged and integrated with this NCFSE (2023) to make a complete whole. Process of its completion has been described in the same way as it was done in NCFSE (2022) through Foreword. The chair states that to ensure appropriate focus and fillip to the foundational stage (ages 3-8), the detailed National Curriculum Framework for Foundational Stage (NCF-FS) was released on 20 October 2022 by the Honourable Minister of Education, which is integrated within the NCF-SE. It again declares that the National Curriculum Frameworks for Teacher Education, and for Adult Education are to follow. The chair feels grateful for this opportunity.

Other than "From the Chair" the NCFSE (2023) includes Acronyms; Table of Contents showing How to Read the NCFSE; Introduction; Summary; From the Chair to all 5 parts- A, B, C, D & E; Glossary; Conventions and Styles Used in this NCF; References; Bibliography; Acknowledgements; Wide and Inclusive Process for Development of the National Curriculum Framework; and the Quotes of NEP (2020). Like NCFSE (2022) it also starts with cover page and ends with cover page.

How to Read the National Curriculum Framework for School Education

This aspect of NCFSE (2023) is meaningful to every reader which makes the reader to understand how to read the text, which aspect to read more, and or from where to start to read. Firstly, it suggests reading from start to end as it is an integrated document and cannot be understood by reading in pieces or from hither and thither. It further suggests that if one has to read in a selective manner, he/she should read part-A along with the subsequent part he/she interested in. The framework puts an example and suggests that if one has to read the part Science Education, he/she should read part-A completely and then Science Education in Part-C. It further suggests that curriculum and syllabus developers must read entire volume, content developers may read content for Teachers and Administrators. Other stakeholders may read Summary, Chapters of Interest, and part-A. Different presented illustrations are important and knowledge giving for better understanding. The framework particularly advice not to read only summary and understand that the framework has been read completely.

Introduction

The introduction talks about the NEP (2020) and states that the NCFSE (2023) is to implement the NEP recommendations in the context of school education. The introduction finds the NCFSE comprehensive

which includes subject content, teaching-learning material and more importantly school environment and culture as an integral aspect. It claims that the NCF is also focused on approach and principles at the level of practice of Teacher and the School. It finds NCF useful for all the stakeholders including teachers, administrators, students, and community members. It is the NCF that provides insight about education as a whole- the introduction asserts.

The introduction contains sub-head as- Vision of the National Curriculum Framework; Curriculum Content, Pedagogy; Environment, Practices and Culture; Effecting these Curricular Changes; and Organization of this NCF. The vision states about the federal structure and talks SCFs in collaboration with the NCF. The vision is about children's all-round development to be able to contribute culturally, economically, and democratically. The vision is to transform the society through NCF and SCFs, into more just, equitable, humane, prosperous, sustainable, and rooted in Indian ethos and culture. The vision also reflects economic growth, social justice and equality, research and knowledge creation, scientific and technological advancement, environmental sustainability and cultural preservation and vibrancy. Vision is also about the attainment of individual and social goals.

Under the head Content the introduction mentions all the possible content areas like language, mathematics, science, social science, vocational education, art, empathy and care, communication, ethical reasoning, data handling, artificial intelligence, machine learning, environment, health, physical education, craft, ethics and values, literature, and what not? to show its concern and commitment in multi-disciplinary approach.

Regarding Pedagogy it expresses experiential, integrated, inquiry-driven, discovery-oriented, discussion- based, project based, arts-based, sports based, and activity-based approaches and suggests for engagement through the ways like participating, questioning, discussing, debating, and writing. At this juncture NCFTE (2009) is clearly reflected. NCFTE (2009) states, "The design of in-service programmes would depend on the specific aims of each programme, given a vast variation in the context. However, some general principles with regard to the content and pedagogic approach would need to be kept in mind during the designing and implementation across various programmes." The 2009 framework focuses on (1) Content and Pedagogy Approach, and (2) Addressing Teachers as Learners.

It suggests for exchange of ideas through language, communication, logical reasoning, assessing, etc. About Environment, Practices, and Culture it focuses on work-culture, cordial relationship among all the

teaching-learning related persons, nurturing school environment as natural, healthy, and bias-free. Regarding Effecting these Curricular Changes, it touches upon the actions and practices of the various participants of the education system as teachers, educational administrators, institutions, leaders, family, community, and students.

Organization of this NCF as a part of Introduction talks in terms of five parts of the NCFSE (2023) as part-A, Part-B, Part-C, Part-D and Part-E along with brief description. It states that Part-A is about broad Aims of School Education along with approaches for content selection, pedagogy, and assessment. Part-B deals with cross-cutting themes of NCF as Indian values & roots, environment, inclusion, technology, etc. Part-C is about chapters for each school subject. Part-D deals with school culture, positive learning environment, and inculcation of desirable values. Part-E, the last part, is about overall ecosystem, aspects of teacher, infrastructure, and community roles under the sub-head as Creating a Supportive Eco- System. This part is more specific regarding, the teacher and teacher education, and so particularly important for B.Ed. & M.Ed. students, teachers, teacher educators, and administrators.

Summary

Summary of the NCFSE is comprehensive and deals with all the related aspects of the framework in brief. It has pointed key highlights reflected in NEP (2020) as change in School Structure as 5+3+3+4, Early Childhood Care and Education (ECCE), Foundational Literacy and Numeracy, Curricular Aims, Multidisciplinary, Holistic, and Integrated Education, Reduced Curriculum Content, Flexibility and Choice in the Secondary Stage, Integrating Vocational Education, Multilingualism, and Rootedness in India.

The nine major sub-heads of summary are A Few Preliminary Points; Core Principles of this NCF Design; Learning Standards; Stage Design; Few Thrust Areas of this NCF; Other Curricular Areas; School Culture and Processes; Creating a Supportive Ecosystem; and Community and Family Engagement. A few preliminary points are discussed through curriculum, curriculum framework, and what does the NCF aim to achieve. Core Principles of this NCF design to realize the vision of NEP 2020 contains guide for practitioners, specificity, pragmatic considerations and learning standards. Learning standards is about Broad Aims of School Education; Values and Dispositions, Capacities, and Knowledge; and Curricular Aims, Goals, Competencies, and Learning Outcomes.

Stage Design contains Foundational Stage (3-8 years, 5 years, ECCE to Class-2); Preparatory Stage (8-11 years, 3 years, 3-5 classes); Middle

Stage (11-14 years, 3 years, 6-8 classes); and Secondary Stage (14-18 years, 4 years, 9-12 classes); with phase-1:9-10; and phase- 2:11-12). This stage design contains other information regarding subjects and specializations. At middle stage there is the description of four group. Group-1- Languages; Group-2- Art Education, Physical Education & well-being & Vocational Education; Group-3- Social Science and Interdisciplinary Areas; and Group-4- Mathematics & Computational Thinking and Science. All the Group subjects have a comprehensive list. Secondary stage- Phase-2- (11 & 12th) have three groups besides Language Education as Group-1. Group-2 has Art Education, Physical Education, and Vocational Education. Group-3 contains Social Science and Humanities and Interdisciplinary Areas. Group-4 contains Science, Mathematics and Computational Thinking. Stage Design also deals with language reading, subject combinations, and other transaction and evaluation related matters.

Few Thrust Areas of this NCF contains Art and Physical Education; Vocational Education; Environmental Education; and Rootedness and Pride in India. Among "Other Curricular Areas" there are Language Education, Mathematics Education; Science Education; and Social Science Education. "School Culture and Processes" contains School Culture, and School Processes. "Creating a Supportive Ecosystem" contains Capacity Building for Implementation, Ensuring an Appropriate Environment for Learning and Enabling and Empowering Teachers. From Teacher's Education point of view this "Enabling and Empowering Teachers" is particularly important. Community and Family Engagement" suggests that parental and community participation is necessary, and their participation is essential for holistic learning as community members and resource persons.

Part-A of the NCF: Approach

How to Read NCFSE (2023) has suggested that if one cannot read the entire text, she/he must read part-A along with a specific part and/or sub-part. It means one must read at least part-A to understand NCFSE (2023) in brief. Part-A of the framework lays down the basic structure of the curriculum. This part deals with four chapters. Chapter-1 is about Aims of School Education and Curricular Design to achieve these aims. Curriculum framework responds to four-stage design- 5+3+3+4, and chapter-2 provides Curricular Considerations specific to each stage along with logic and thinking behind this four-stage design. Chapter-3 provides overall approach to the curriculum and includes learning standards, principles of content selection, pedagogy, and assessment. Chapter-4 the last chapter is about time allocation against different areas of curriculum.

Chapter-1: 'Aims and Curricular Areas of School Education' clearly states that these aims are derived from NEP, 2020.

Section 1.1: "Vision of Education Drawn from NEP 2020" mentions vision of the NEP (2020) itself, as the vision of India is articulated in the constitution of India, and it is about equitable and vibrant knowledge society that is governed by civilizational heritage of India and focused on individual as well as social development.

Section 1.2: "Aims of School Education" are around knowledge, capacities, values, and dispositions. It mentions aims of school education as reflected in the NEP-2020, and under the head "Aims of School Education in this NCF" enlists as Rational Thought and Independent Thinking/Autonomy; Health and Well-being; Democratic and Community Participation; Economic Participation; and Cultural Participation. In fact, the aim as reflected in the NCF is to develop individual through school education as a social resource considering all-round development.

Section 1.3: "Knowledge, Capacities and Values, and Dispositions" focuses under Values and Dispositions certain values as ethical and moral values; democratic values; and epistemic (about knowledge and truth) value; and dispositions like A positive work ethic; curiosity and wonder; and pride and rootedness in India. Among Capacities it mentions Inquiry; Communication; Problem Solving and Logical Reasoning; Aesthetic and Cultural Capacities; Capacities for Health, Sustenance, Self-management, and Work; and Capacities for Social Engagement including Affective Aspects. Knowledge and Knowledge- the Foundations discuss around epistemology and different types of knowledge in a specific area besides five knowledges as common to all. These are as knowledge about the self, others, the social world, and the physical and natural world.

Section 1.4: "Towards a Curriculum" includes School Culture; School Processes; and Curricular Areas. Curricular areas are as Language; Mathematics and Computational Thinking; Sciences, Social Sciences, Art Education; Interdisciplinary Areas, Physical Education and Well-being and Vocational Education.

Chapter -2: "School Stages-Logic and Design" is also based on NEP (2020)'s recommendations. NCF states that this stage bifurcation is based on human development psychology and is in four stages as 5+3+3+4.

Section 2.1: "Child Development" mentions child development stages as Infancy, Early Childhood, Middle to Late Childhood and Adolescents by mentioning the child age respectively as against stages as birth to 3 yrs. 3-8 yrs., 8-14 yrs. and above 14 yrs. Under the sub head (2.1.1) Development

across Domains the text discusses physical development, cognitive development, languages development, socio-emotional development, and moral development categorically, as against all the specific stages from Infancy to Adolescence.

Section 2.2: "Development of Concepts in Curricular Area and Requirements of Capacities" is about the process of growth and maturation among children in different domains with the purpose to justify age specific curricular area and design of the NCF. It deals with "Reading Development" in terms of six stages as Pre-reading, Initial reading, Fluency and Ungluing from Print, Reading for Learning the New, Multiple Viewpoints, and Construction and Reconstruction. Sub-head "Perceptual, Practical, and Theoretical Concepts" deals with Perceptual concepts, Practical concepts, and Theoretical Concepts. "Modes of Inquiry" is explained in terms of Play and Exploration, Capacities for Inquiry, Methods of Inquiry, and Disciplinary Exploration.

Section 2.3: "Stage Design" is explained in terms of Foundational Stage (3-8 years. Class pre-school to 2); Preparatory Stage (8-11 yrs. class 3 to 5); Middle Stage (12-14 years, class 6-8); and Secondary stage (14-18 years, 10-12th). Three Stages- Foundational, Preparatory, and Middle are explained in terms of Curricular Structure, Content, Pedagogy, Assessments, Classroom Arrangements, and Teachers. Secondary Stage also discusses its nature in terms of these six aspects, but it focuses on other aspects as well. It points out certain aspects as No Hard Separation, Breadth and Depth, Choice of Flexibility, Reduced Content Load, and Reduced Examination Pressure. It is divided into two phases (I -9-10, II - 11-12 classes) and four groups- A, B, C and D.

Chapter-3: "Approach to Learning Standards, Content, Pedagogy, and Assessment" is about defining learning standards, content selection, methods of teaching, and assessment to attain specified goals as against four categorized stages of schooling structure.

Section 3.1: "Approach to Learning Standards" has been defined in terms of Aims of School Education, Curricular Goals, Competencies, and Learning Outcomes. Under the sub head 'From Aims to Learning Outcomes' it deals with From Aims to Curricular Goals; From Curricular Goals to Competencies; and From Competencies to Learning Outcomes. Under the sub-head "Nested Learning Standards" it specifies the need for resources and specialist teachers specially in relation to the Curricular Areas of Art Education, Physical Education and Well-being.

Section 3.2: "Approach to Curriculum Content" is about resources and material used in the teaching learning process in the form of Books;

Other Kinds of TLM; and Learning Environment. Under the sub-head "Content Selection" it deals with selecting appropriate curricular content. Curricular Goals, Competencies and Learning Outcomes give direction to content selection to attain required learning experiences. Under the sub-head "Textbooks" it talks about Role of Textbooks, Key Principles of Textbook Design, Important Elements in Textbooks and Process for Textbook Development. Role of Textbooks is explained in terms of Reduction in Textbook Centricity, Expansive and Inclusive Notion of Textbooks, Availability of Multiple Textbooks, Quality of Textbooks to be High, and Cost of Textbooks.

Key Principles of Textbook Design contains Curriculum Principle, Values Principle, Discipline Principle, Pedagogy Principle, Language Principle, Technology Principle, Context Principle, Presentation Principles, and Diversity and Inclusion. Important Elements in Textbooks are mentioned as Design Aesthetics and Consistency, Learning Standards, Consistent Design Elements, Activities and Exercises, and Reference to Additional Materials. Process of Textbook Development is explained in terms of Creation of a Syllabus Document; Panel of Textbook Writers; Reviewers, and Designers/Illustrators (it is the people involved named as Textbook Writers and Reviewers, Designers/Illustrators and Technical Experts); Choice of Content, Pedagogy, and Assessment; Structure of the Textbook; Presentation and Design; Writing, Review and Pilot Run; Teacher Orientation to the Textbook; and Multiple Textbooks. Sub-head "Learning Environment and Teaching –Learning Materials" explains the concept of learning environment that is safe, inclusive, stimulating, and supportive. It demands the schools to be equipped with adequate materials and resources.

Section 3.3: "Pedagogy" is about method and practice of teaching to make the learners achieved the Expected Learning Outcomes. Sub-head "How do Children Grow and Learn" is being explained through the facts mentioned as the brain plays an important role in learning; Learning is based on the associations and connections that children make; Emotions are deeply connected to learning; The learning environment matters; and Learning occurs in a particular social and cultural environment. The sub-head "Effective Pedagogy for Achieving Aims of School Education" is explained in terms of achievement of valuable knowledge, capacities, values, and dispositions by students. The sub-head "Key Elements that Enable Effective Pedagogy in the Classroom" is being explained in terms of Ensuring Respect and Care of Learners; Building Positive Teacher Student Relationship (through individually knowing, listening carefully to all, observing students, encouraging responses, encouraging questioning,

and responding gently); Providing Scaffolding; Using Differentiated Instruction; Providing Opportunities for Independent and Collaborative Work; Using Varied Resources; Helping Students develop Appropriate Work Habits and Responsibility; and Giving Prompt and Meaningful Feedback.

Sub-head "Planning for Teaching" is to Plan to Present the learning material to achieve learning outcomes along with the planning for introduction, method and media, and evaluation techniques. Major components of teaching plan specified are as Learning Outcomes (objectives), Teacher and Students Activities, Choice of Pedagogy, Content and Material to be Used, Duration and Sequence of Activities, Classroom Arrangements, Specific Strategies to help Needed Students, and method of assessment. "Managing Classrooms/Student Behaviour" as sub-head expresses that the discipline must be seen from the lens of self-regulation and self-discipline as necessary condition for development and the pursuit of learning. Sub-head "Responding to Students with Disability or other Individual Learning Needs" suggests responding to the diverse needs of learner. It also produces a wide list of suggestion to deal with variety of learners' needs like bridge course etc.

"Homework" as a sub-head clearly states that homework is a part of learning process and so must be placed and utilized meaningfully. The sub-head "Pedagogy across Stages" has discussed all the four stages of 5+3+3+4. (Foundational, Preparatory, Middle, and Secondary) in terms of Pedagogical considerations related to Physical development; Pedagogical considerations related to emotional development; Pedagogical considerations related to social and ethical development; and Pedagogical considerations related to cognitive development. All these pedagogical considerations related aspects and stages are based on sound Psychological, Sociological and Cultural aspects of learning. Under the sub-head "Overall Principles of Pedagogy" NCF suggests certain principle for teaching learning process as learning is active process and involves understanding and doing both (allow them doing); children learn best when respected, valued and involved in the learning process (involve them democratically); children learn in many ways like reading, writing, questioning, discussing, listening, illustrating, participating, exploring, discovering, speaking, experimenting, etc. (apply for them varied ways); learning is more and permanent when connected to learners life and learning experiences (allow them to connect with content); and practice facilitates learning (allow them to practice); and Pedagogical Principles also suggest what not to do as punishing, inequity on any basis, rote memorization (without basis or understanding), and students to treat as passive listeners. It states

that effective pedagogy is to encourage conceptual understanding, active discovery, questioning and debating, independent learning, experiencing and experience using, equity, feedback giving, voice raising and expressing, accommodating diversity, variety of teaching techniques using, etc.

Section 3.4: "Approach to Assessment" is based on the NEP (2020) reflections. Under the sub head "Purpose of Assessment" NCF mentions two purposes of measuring students' achievement and gauging classroom effectiveness. Certification is being made based on it and it helps to improve teaching and learning. Sub-head Assessment of Learning; Assessment for Learning; Assessment as Learning" indicate that all these three approaches are employed in school education to evaluate or measure learning, to facilitate learning and to manage them to go together (learning and assessment). Under the sub-head "Current Challenges in Assessment" it has been reflected that assessment has become mechanical in nature and is measuring rote learning not competencies. It is causing anxiety and is not being made for holistic evaluation.

The sub-head "Key Principles of Effective Assessment" contains Assessment to Measure Competencies and Learning Outcomes to Attain Curricular Goals; Assessment be Constructive, Developmental, and Learning Focused; Assessment be Stage Appropriate; Assessment to Accommodate Student Diversity; Assessment be Supported by Timely, Credible and Constructive feedback to Students; and Assessment to Support Student Learning in meaningful Aggregation or Summation. Sub-head "Types of Assessment" is about two types of assessment as Formative Assessments; and Summative Assessments. The sub-head "Forms of Assessments" mentions Written Tests (Objective type, Constructed response questions, Graphic organizers); Oral Tests (Reading aloud, Listening and Responding, Recitation, Debates and Discussions); Practical Tests (Experiments, Artifacts (created by students), demonstration, projects, portfolios (cumulative record) and Open Book Tests. Sub-head "Designing Good Questions" suggests designing questions to measure stage specific curricular achievement to attain learning outcomes. It further suggests some key rules for designing good questions as questions to access a relevant concept, questions to be clear and factually and conceptually correct, vocabulary used in the questions to be contextual, age appropriate, and bias free, in MCQs misconceptions be avoided, and descriptive questions to contain marking scheme.

The sub-head "Assessment across Stage" talks in terms of stage-specific assessments. For Foundational stage it advocates for two modes as child's observation and analysis of artefacts created by child. For Preparatory level it is formative oral and written assessments besides observation of

students and analysis of artefacts created by students. Early Summative Assessment is also suggested to enter the next Grade. At Middle stage variety of Oral and Written tests to be added. Practical tests and Projects to be introduced, and Early Comprehensive Summative Assessment to enter the next class be employed are also suggested. At the secondary stage a variety of written tests, practical tests, open book tests, and early Comprehensive Summative Assessment of each subject are suggested. Approach of Assessment is also supporting the recommendations of Position Paper on NCF (2007). Position Paper on NCF (2007) suggests for Continuous and Comprehensive Evaluation (CCE), Issues of CCE Certificate, Keeping Internal Assessment Honest, and employing Practical Examinations. It states, "while the primary mandate of this Focus Group was to suggest reforms for exams (as opposed to all assessment), we would like to make a brief plea for the importance of school-based assessment and hope we can strengthen it in the medium term."

Under the sub-head "Holistic Progress Cards (HPC)" NCF explains that HPC is a means of communication between the school and home, which is individualized, comprehensive, all domains related, tasks area related and individualistic comparison (Progress report) related. The sub-head "Progression across Grades" clearly states that students not to be detained from Grades 1 to 8, and there to be support systems to help all students to acquire the requisite competencies by Grade 8. The sub-head "Progression across Grades" presents suggestions related to evaluation, detention, competencies, etc. It suggests not to detain students from Grade 1 to 8; achieve competencies among students by grade 8 to promote to Grade 9; to acquire competencies by Grade 8 among the student place check points and support systems; to manage to take examinations at class 3, 5 and 8 (it is to be conducted by independent body which is outside the school, it is to be competency-based examinations and it is to be based on core competencies crucial to study in later grade); Assessment achievement to be shared to school and parents; necessary actions to take to improve child's competencies if not satisfactory for promotion to next grade; different types of options for students competencies will be employed; student's responsibility will be of school, but attendance will be accounted; school will prepare annual progress report of each students; report will be made available to public; and data privacy will be taken care of.

The sub-head "Approach to Board Examinations in Grade 10 and 12" contains Current Challenges; Changes in Board Examinations; Assessing Values and Dispositions in Board Examinations; and Challenges of Entry into Higher Education. Current challenges are social factors as life-altering effects; high stakes for future like admission, etc.; no second

chances of improvement; nature of examinations focusing memorizing or remembering; and other influences like coaching and tutoring services. Changes in Board Examinations suggested are accessing the achievement of competencies; burden reducing; designing and implementing fair, reliable, and valid testing process; board examinations organizations at least twice in a year; in courses like vocation education, etc. where there is demonstration based evaluation, written examination be given only 25% weightage; Science and other subjects should have around 20-25% weightage of demonstration based assessment; selection of test developers and other concerned person be made through rigorous process; test development process for written examination be significantly streamlined (creating Assessment framework, Designing a Blue Print, Designing good quality test items and Scoring guides, and adopting rigorous review procedures) and board examination to ensure periodic, rigorous reviews of the quality of test instruments designed. Assessing Values and Dispositions in Board Examinations is about development of values and dispositions to be addressed through every day school processes and observation-based recording by teacher. Challenges of Entry into Higher Education is about high stress and mental health issues, culture of coaching and tutoring, and focus on cracking not real learning.

Chapter-4: "Time Allocation" is about allocation of time to different activities and areas of learning. Time management and allotment has been presented through four sub-heads.

Section 4.1: "Considerations for Reduction of Content Load" presents some considerations as focus to be given on genuine conceptual understanding instead of procedural or rote learning; Space and time to be given to Art Education, Physical Education, etc. i.e. the newly considered Curricular Area (Previously Co-curricular); and Competencies to be viewed essentials of learning.

Section 4.2: "Foundational Stage" focuses on considerations for the Daily Routine and presents Illustrative Daily Routine for Ages 3-6; and Illustrative Daily/Weekly Routine for Ages 6-8 in detail.

Section 4.3: "Consideration for Time Allocation across Preparatory, Middle, and Secondary Stages" states about working days, activities-based allocation of time. Various specific suggestions have been forwarded as 220 working days per year, 20 days assessment, 20 days school events, remaining 180 days for instruction, five and half days weekly work with Saturday as half-time, if Saturday is not working day then five and half days every alternate week, 34 working weeks of around 29 hours of instruction hours every week, Language and mathematics in the morning

after a nutritious breakfast and varied different subjects to get different priorities on a weekly basis.

Section 4.4: "Stage-Specific Considerations" in terms of three sub-sections as Time Allocation for the Preparatory Stage, Time Allocation for the Middle Stage; and Time Allocation for the Secondary Stage. For the Preparatory stage there are suggestions for 25 minutes assembly, 40 minutes class time, 80 minutes block period, 05 minutes reach/transition time, No assembly on Saturdays, 15 minutes snack break, 45 minutes of lunch break on week days which is of 30 minutes on Saturday, Time for R1 and R2 languages and the Time for World Around Us (TWAU) has also been given adequate space, Art Education and Physical Education have been given fair share of time. It has been presented in Tabular form, the reader when interested may investigate.

For the Middle stage time allocation has been presented which is somewhat like the preparatory stage. There are 25 minutes assembly, 05 minutes reach / transition time, 40 minutes class time, 80 minutes of block period for activities like lab work, etc. No assembly on Saturday; 15 minutes lunch break on Saturday; Third language (R3) introduced at middle stage, and it is to be given more time than R1 and R2; Fair share to Science, Social Science, and Vocational Education as a new Curricular Area. The Time Schedule is presented in Tabular form.

For the Time Allocation for the secondary stage assembly time is 25 minutes; 05 minutes transition time; class time 50 minutes and block period 100 minutes for activities, lab work, etc. 50 minutes lunch time and for Saturday 30 minutes; Additional Enrichment Period (AEP) at two Saturdays after class; Additional time for practice in Curricular Areas like Art Education, Physical Education and Well-being; All three languages will continue (R1 R2 and R3); Interdisciplinary Areas (IDA) is a new Curricular Area and reasonable share to be given. Time Allocation is presented in Tabular form. 10 days Bag-less period for Grade 6-12 for vocational proficiency development, enrichment activities, and for other activities to be planned and organized.

Teacher Education in NCFSE (2023)

NCFSE (2023) in structure, as stated above, contains five parts-A, B, C, D, and E. The framework through its sub-head "How to Read the NCFSE" suggests part-A mandatory in the understanding of the any related concept such as Teacher Education or Languages Education. Teacher Education has not been placed directly as Science Education, or Mathematics Education, but in the text Teacher Education is reflected. It is more focused in Part-E under the head "Enabling and Empowering Teachers"

though it is present throughout the text as Teacher Education is highly correlated with School Education. This relationship wants comprehensive curriculum for teacher education as suggested by CFFQTE (1998). CFFQTE (1998) narrates, "The country needs teachers with different orientations and specializations to manage educational programmes. In addition, the teachers are also needed for physical education, music, art, painting, dance, work education and vocational subjects and for the non-formal stream, distance education, adult education, open learning system, etc. The scope of teacher education curriculum, therefore, gets enlarged."

Part-A has been discussed in detail. Part-B is about Indian Education and Value System under the head "Cross-cutting Times". Its sub-heads as Rootedness in Indian Knowledge System; Values and Dispositions; Learning about and Caring for the Environment; Inclusion in Schools; Guidance and Counseling in Schools; and Educational Technology in Schools, clearly indicate that all these aspects of teaching and learning are not relevant to the Teacher Education as a discipline rather these are directly linked with the scope of Teacher Education as a concept.

Part-C is about different school subjects under the head "School Subjects". It has sub-heads like Learning in the Foundational Stage; Language Education; Mathematics Education; Science Education; Social Science Education; Art Education; Education in Interdisciplinary Areas; Physical Education and Well-Being; Vocational Education; and Subjects in Grade 11 and 12. These sub-heads clearly indicate that part-C is very much linked to teacher education as teaching of school subjects may not be discussed without Pedagogical science which is the centre of concern in Teacher Education Programme.

Part-D is regarding culture of the school and teaching-learning process under the head "School Culture and Processes". It contains only two sub-heads as school culture; and School Processes. We all know the school culture is about the environment in which individual elements like teacher, student, administrators, etc. interact for the success of the teaching-learning process to attain educational goal. No need to say, in this affair as well the teacher education plays role, and that is why teacher education has social and cultural dimensions.

Part-E is about the supportive eco-system creation to work and implement plan and programme to achieve educational objectives. Teacher is the most potent implementer in the process of education, and success and failure of any policy framework, Plan and Programme depends on her. This part under the head "Creating Supportive Ecosystem" is totally focused on implementing part. It has four sub-heads as Capacity Building for Implementation, Ensuring an Appropriate Environment for Learning;

Enabling and Empowering Teachers; and Community and Family Engagement. Among all these four parts of part E, the third part has element and content of teacher education. The third sub-head is directly addressed to teacher education in the name of "Enabling and Empowering Teachers" which needs special and specific address to discuss Teacher and Teacher Education.

Enabling and Empowering Teachers

Chapter-3 under the head "Enabling and Empowering Teachers" is addressing directly the issues related to teacher and teacher education through eight sub-heads as Ensuring and Enabling Environment for Teachers; Teacher Autonomy and Accountability; Pupil-Teacher Ratio; Career and Professional Development Opportunities; In-Service Teacher Education, Mentoring, and Support; Pre-Service Teacher Education; Head Teachers and School Principals; and Role of Academic and Administrative Functionaries.

The framework in the light of NEP (2020) believes that the teachers must be in the centre of fundamental reforms in the education system, and it is only teachers who can encourage to create an environment that is open and caring. Addressing the importance of teacher the NEP (2020) narrates, "The motivation and empowerment of teachers is required to ensure the best possible future for our children and our nation."

The framework on the line of NEP (2020) addresses teachers' pride and professionalism. It shows its immense faith in teacher's autonomy and basic requirements in terms of physical and other facilities. It categorically advocates that the teachers need resource rich, motivating environments, and continuous opportunities for professional learning and interaction. In some way or other the NCFSE (2023) accepts that all-round investment in teachers is not necessary from academic and cultural point of view, rather it is an issue of economic development through manpower planning and human resource development.

Section 3.1: "Ensuring an Enabling Environment for Teacher" is about creation of environment for teachers to allow them to work with autonomy and help them with facilities to grow professionally. The role to be played under enabling environment is comprehensive which starts with the selection of potential aspirants. What Govinda (2016) states is correct in teacher education perspective. Govinda, G (2016) rightly narrates about teachers' importance and her selection and recruitment, "Teacher is the crucial actor to tackle the quality issue. There are several issues related to teacher that need to be addressed with appropriate policy measure. Recent Teacher Eligibility Tests have revealed that a large proportion of

the teacher-aspirants do not qualify despite having requisite academic and professional degrees. This highlights the poor quality of the aspirants who seek to enter the teaching Profession."

Section 3.2: "Teacher Autonomy and Accountability" is about teacher's autonomy to work and her accountability to investigate the welfare of teachers. The framework finds accountability critical and advocates for teachers' empowerment and autonomy the preconditions for accountability. The framework communicates that accountability is a complex process which cannot be understood mechanically. It recommends for competent and committed teachers for quality improvement in learning and advocates for supporting environment and effective ecosystem for teachers' effectiveness and its development. It focuses on teachers' Pedagogical Autonomy so that they could decide about methods of teaching and sequencing of content matter presentation. Teacher autonomy is not independent, it is being influenced by teacher knowledge base and facilities provided. This aspect has also been emphasized in NCF (2005). NCF (2005) asserts, "Teacher Autonomy is essential for ensuring a learning environment that addresses children's diverse needs. As much as the learner requires space, freedom, flexibility, and respect, the teacher also requires the same. Currently, the system of administrative hierarchies and control, examinations, and centralized planning for curriculum reform, all constrain the autonomy of the headmaster and teacher."

Section 3.3: "Pupil-Teacher Ratio" is about the number of teachers in ratio of the number of students. This PTR is not a number, but if it is proper, it facilitates students learning and improve teaching effectiveness. PTR has its bearing on students' achievement and lead to better outcomes. Referring Pedagogical specialists, the framework states that a lower PTR has a large impact during the early years of schooling. The document advocates for regular appointment, not temporary teachers, and claims that if PTR is improved through the appointment and professional development of appropriately qualified teachers it is beneficial. Improved PTR along with proper infrastructure, and teachers' academic and pedagogical capacity may be advantageous for teaching-learning process.

Section 3.4: "Career and Professional Development Opportunities" is about teacher's service condition and professional growth. Referring NEP (2020), Para-5.18 the framework asserts about equal career growth opportunities across all stages of school education. The framework advocates for improved service conditions, attract and retain talented teachers in the profession. About the recruitment of teachers, the framework recommends for standard service conditions for all stages of teachers. It advocates for teachers' career prospects and career shifting to higher levels. Teacher

preparation is one of the important aspects of the teaching-learning process. Disale (2022) expresses with the same intensity. Disale, R (2022) asserts, "The way teachers interact with students in the classroom, and the experiences that teachers provide them, can make all the difference in ensuring student's emotional, academic, and social learning. Therefore, teacher's training becomes more important."

Section 3.5: "In-service Teacher Education, Mentoring, and Support" is about teachers' continuous professional growth and development. NCFSE (2023) believes that teachers' professional development is a journey, and they should be provided to develop professionally with their own individual pace. The document finds in-service teacher education important and suggests for teachers to be allowed to grow through a variety of means available to them. It advocates for Platforms for peer learning with mentoring and available support system. It recommends for school-based mechanism for continuous professional development of teachers, meeting of subject group members, Principal observations, Induction for the new teachers, mentoring by senior teachers, journal writing, teaching experiences documentation, engaging in wholesome learning activities for individual teacher as his/her own, etc. as parts of teachers' in-service education and development.

It also stresses the need for in-service programme of education for teachers to be managed and supported by NCERT, SCERTs, DIETs, BITEs, BRCs, and CRCs. These institutions are to arrange for capacity- building sessions, support materials, on-site visits, monitoring, and supervision; and these opportunities be continuously available. It is happy to listen that the country is thinking on a sound pool of mentor as Sarangi believes. Sarangi, S. (2022) informs, "National Mission for Mentoring (NMM) for schools will be operationalized by NCTE by creating a large pool of outstanding senior/retired faculty as potential mentors for mentees (school-teachers, principals, teacher-educators, etc.) regardless of the age or position of the mentor and mentee who will contribute towards realizing 21st Century developmental goals of our nation."

Section 3.6: "Pre-Service Teacher Education" is about primary education of the Prospective teachers. The framework asserts that the pre-service teacher education must prepare teachers with sound knowledge base so that they could attain strong Professional identity. This can be understood in a better manner in the light of the recommendations made by Position paper developed in 2007 based upon NCF (2005). Position Paper on NCF (2007) lamenting on the status of the teacher education expresses opinion in hard words, "The Professional Preparation of teachers has been recognized to be crucial for the qualitative improvement of education since

the 1960s (Kothari Commission, 1964-66), but very few concrete steps have been taken in the last three decades to operationalize this. This may be one of the more important factors leading to the current poor state of education in the country".

This NCF-2023 recommends for four-year teacher education programme and expects that the teacher student be provided interdisciplinary curriculum and graded exposure through practicum. NEP (2020) largely focuses on multidisciplinary approach in teacher education, "As teacher education requires multidisciplinary inputs, and education in high-quality content as well as pedagogy, all teacher education programmes must be conducted within composite multidisciplinary institutions. To this end, all multidisciplinary universities and colleges- will aim to establish, education departments which, besides carrying out cutting- edge research in various aspects of education, will also run B.Ed."

It mentions Teacher Education Curriculum Framework for Teacher Education based on NEP (2020), which is to come, and assures that the curriculum will be comprehensive in nature and shall take care of observing, experiencing practicing dialogue, theoretical understanding of the student teachers. It raises issues of demand and supply factor of preparing teachers by considering the nature of specialization, concerned institution as learning centres, subject of teaching, stages of school structure- Foundational to Secondary, etc. It recommends Teacher Eligibility Test (TET) for the selection of student teachers for all stages of teacher. The framework by showing concern for the quality of teachers asserts for rigorous process for recruitment of teachers with the help of written test followed by interview and classroom demonstration.

Section 3.7: "Head Teachers and School Principals" is about the leader preparation and selection in a way he/she could run and direct the institution properly to attain the educational goals of school education. The framework asserts that the head teacher or Principal is to create an environment which is supportive and empowering teacher to teach properly. Head teacher is there to help teachers to plan for classes, provide access to needed resources, observe teachers' classes, provide constructive feedback, arrange conversations for learning, and establishing rapport and relationship with parents and the community. The principal is to create constructive environment to fruitful suggestions by all stakeholders and by making democratic atmosphere to ensure dialogue. The framework suggests Principal to do away any type of bias, facilitate teachers' functioning and manage for transparent communication between teachers and students.

Section 3.8: "Role of Academic and Administrative Functionaries" is about the work to be done by the administrators for the functioning of the

academic institutions. The framework states that academic functionaries are to play important roles to transform and improve school system. They are instrumental in the implementation of NCF as well. They are to involve with schools, school visits, development of innovative learning materials and a pool of academic persons to help teachers. DIETs and SCERTs may play related roles in supporting the teachers. Besides Academic functionaries, administrative functionaries are to play crucial role in the matter of budgetary allocations, availability of teachers, timely supply of TLM, etc. The National Achievement Survey (NAS) and State Learning Achievement Surveys (SLAS) are also to be properly employed. Public support through different means may also prove to be useful.

This part through eight sections from 3.1 to 3.8 largely focuses on teacher and teacher related issues. The curriculum for teacher education programme, as declared, will be talking on the learning contents of the prospective teachers. Let us wait for NCFTE based on NEP (2020) for comprehensive verdict on Teacher Education Programme

The NCFSE (2023) ends with Part-E, Chapter-4 (Community and Family Engagements), and Section 4.2 (School Management Committees). It has a comprehensive "Glossary" list to make the readers familiar with some identified words and concepts. They all are 79 in numbers. "Conventions and Styles Used in this NCF" is about letting, case, etc. They are five in number to instruct the reader to follow the style as states. There are five references, and 264 Bibliographies. The list of acknowledgements is comprehensive. "Wide and Inclusive Process for Development of the National Curriculum Framework" represents involvements of states and UTs, Consultation With stake holders, and draft release for Public Comments. It ends with NEP (2020)'s quote and there is repeat of Cover Page at the end as well. Teachers' selection and preparation are vocal in the NCFSE (2023) and seems that the concern shown by Justice Verma Commission has been investigated. Justice Verma (2012) rightly suggested, "Government may explore the possibility of instituting a transparent procedure of Pre-entry testing of candidates to the pre-service teacher education programmes, keeping in view the variation in local conditions."

Let us sum up

Our NEP (2020) is brilliant, our NCFSE is praiseworthy. Both these documents are capable and potent in every respect to make our school education vibrant to find India a super knowledge power. We have young population and capable of employing our demographic dividend through education to create an intense knowledge society. At the same time, we have not proved ourselves good implementer of our brilliant policies.

Teacher, Teacher Education, and Teacher Educators are the key element in making our policy and framework more meaningful. We need to invest in teacher and teacher education to get benefit of policy and framework to their full strength. Tilak, JBG (2016) rightly concludes, "There should be a proper and a clearly defined pattern of sharing of responsibilities in funding education between the union (central) and state governments. While the central government has increased its allocations to education in the recent years, many state governments are not able to substantially increase their allocations to education."

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