National Curriculum Framework for School Education

Salient Features and Summary

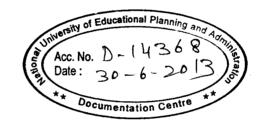




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Salient Features

The National Council of Educational Research and Training has to advise and assist the Government of India in formulating and implementing policies and programmes in the field of education, particularly school education. To that end, it has been preparing, after the interval of roughly every decade, a national curriculum framework for school education and giving broad guidelines about how to address the major concerns and issues before the nation. The states have been, subsequently, adopting or adapting these curricular guidelines to develop their own detailed curricula, syllabi and curricular materials.

The present curriculum framework encompasses all the stages of school education from the pre-primary to the higher secondary. It is the product of an open democratic national discussions and deliberations generated through a *Discussion Document* produced by the NCERT after extensive and intensive multilevel consultations and debates. Almost all the sections of the Indian society have directly or indirectly contributed to the development of the present curriculum framework. These include noted educationists, experts, teachers and teacher educators, parents, representatives of voluntary organisations, boards of school education, state governments and community in general.

While the framework responds to many new societal and pedagogical changes, it remains well within the broad parameters of the *National Policy on Education* framed in 1986 and revised in 1992. Some of the new concerns that lay the foundations of the new framework are:

- Building a cohesive society based on pillars of relevance, equity and excellence
- Integrating indigenous knowledge and recognising India's contribution to the world civilisations
- Inculcating and nurturing a sense of pride in being an Indian, patriotism and nationalism tempered with the spirit of Vasudhaiva Kutumbakam
- Universalising elementary education and linking education with life skills
- Value development at all stages of school education

- Meeting the challenges of information and communication technology and globalisation
- Reducing the curriculum load
- Using culture specific pedagogy
- Viewing the child as a constructor of knowledge
- Recognising the interface between cognition, emotion and action
- Empowering teachers for curriculum development and implementation
- Coordinated decentralisation of the process of curriculum development

Some of the major recommendations made for the qualitative improvement at the different stages of school education are as follows:

- Ensuring availability of pre-school education to all children in the country and prohibiting formal teaching and testing of different subjects at this level
- Integration of environmental education with languages, mathematics and other activities in the first two years of the primary stage
- Integration of art education, health and physical education and work education into the 'Art of Healthy and Productive Living' at the primary stage
- Education about religions and inherent values of all religions to be imparted at all the stages of school education
- Integration of science and technology up to the secondary stage
- Bringing mathematics closer to life and setting up of mathematics corner in the existing science laboratory for practical mathematics upto the secondary stage
- Integrated, thematic approach to the teaching of social sciences upto the secondary stage
- Sticking to the basic policy of three language formula and emphasising the teaching of Hindi as the official language of India and Samskrit as the language of traditional wisdom and culture of the country
- Emphasising the implementation of semesterisation at the secondary and higher secondary stages
- Provision for wide flexibility and freedom in the choice of subjects among the courses to be offered at the higher secondary stage
- Providing a strong vocational stream for enhancing employability and enterprenurship at the higher secondary stage

- Provision for general academic and specialised elective language courses at the higher secondary stage
- Evolving a humane, learner friendly, errorfree, responsive and transparent evaluation system
- Reducing the predominance of external examinations and removal of the pass and fail categories upto Class X
- Use of different methods of grading scholastic and co-scholastic areas of learning
- Use of alternative evaluation procedures for learners with special needs

Toward the effective implementation of the framework the following specific recommendations have been made:

- Adoption of suitable implementation strategies for the orientation, participation and accountability of teachers, parents, community and the managers of the system
- Suggestions for specific implementation strategies for promoting values, ensuring the inclusion of learners with various challenges in the mainstream, and mobilising the requisite resources for achieving the educational goals of the country.

accommodating such areas in the existing curriculum every two to three years in the form of frontline curriculum.

In view of the size of the country and the global experiences, the process of coordinated decentralisation of curriculum development and implementation has been advocated. It means that while the broad framework is developed at the central level, the states may study and analyse it in their own contexts. In evolving the curricular policy, the views and participation of all the stakeholders is of crucial importance.

Chapter 2 is devoted to the organisation of the curriculum at elementary and secondary stages, which complete the ten years of general education. With a view to meeting the societal demands on education in reference to the emerging context and concerns, some thrust areas were identified within the broad frame of National Policy on Education, 1986 and the National Curriculum for Elementary and Secondary Education: A Framework, 1988. As such, uniformity in the structure of the school education throughout the country (i.e., 10+2), continuing the three language formula and using the mother tongue as medium of instruction would be the need of the hour.

Emphasis is to be laid on:

- broad-based general education to all learners up to the end of the secondary stage to help them acquire basic life skills and emotional intelligence;
- a common scheme of studies for the elementary and secondary stages with emphasis on the skill of 'learning how to learn' with flexibility of content and mode of learning to suit all learners including those with special needs; and
- inclusion of Fundamental Duties and the core curricular areas at all the stages of school education.

Proper implementation of the *Minimum Levels of Learning* is necessary for making learning relevant to the needs and environmental contexts of the learners and allowing scope for initiative and experimentation on the part of the teacher, the school and the local authorities. Value education deserves prominent place in the school curriculum for inculcation and sustenance of personal, social, national and spiritual values like cleanliness and punctuality, tolerance and justice, a sense of national identity and respect for law and order and truthfulness.

Awareness of all the major religions of the country needs to be created among school children. The new thrust areas include:

- Elimination of evils like poverty, ignorance, ill health, corruption and violence, and ensuring equity, health, peace and prosperity.
- Thoughts, experiences and innovations which are rooted in the Indian tradition and ethos and relating these with global thinking.
- Human rights including the rights of the child, especially those of the girl child.
- Nurturance and sustenance of multiple talents and creativity among all learners in all spheres of learning at the earliest opportunity.
- Shift of emphasis from information based and teacher centred education to process centred and learner friendly education.
- Use of Information and Communication Technology.

General objectives of education lay emphasis on developing the learners' personality in all respects and realising the national goals of development. The focus has therefore been on the following:

- Appreciation for the need of a balanced synthesis between the change oriented technologies and the continuity of the country's traditions and heritage.
- Understanding of the positive and negative impact of the processes
 of globalisation and liberalisation in the context of the country.
- A deep sanse of patriotism and nationalism tempered with the spirit of Vasudhaiva Kutumbakam.
- Qualities clustered around the personal, social, national, moral and spiritual values that make a person humane and socially effective, giving meaning and direction to life.
- Qualities and characteristics necessary for self learning, self directed learning and life long learning leading to the creation of a learning society.
- Emphasis on the 'learner-centred approach' commensurate with the physical, mental, social and emotional development of the learners in relevant age groups. In this context, the shift from the traditional Piagetian model of the 'child's development' to the 'Zone of Proximal Development' of the learner assumes great importance.

Scheme of Studies

Taking into account the general objectives of education and realising the need for addressing the problem of curriculum load at various stages of school education, a scheme of studies has been proposed which recommends: (a) two years of Early Childhood Care and Education to be made available to all children of 4-6 years of age with no formal teaching and evaluation and only for providing experiences to promote school readiness; (b) the study of one language (the mother tongue/the regional language), Mathematics and the Art of Healthy and Productive Living in Classes I and II. In addition, Environmental Studies will be taught in Classes III to V; (c) at the upper primary and the secondary stages, subjects to be studied will include three languages (the mother tongue/the regional language, a modern Indian language and English), Mathematics, Science and Technology, Social Sciences, Work Education, Art Education (fine Arts: visual and performing) and Health and Physical Education (including games and sports, yoga, NCC, Scouting and Guiding and Red Cross). Besides, Computer Education will also be made available wherever possible.

The characteristic features of the school curriculum would include:

- Healthy, enjoyable and stress free Early Childhood Care and Education for all learners with no formal teaching of subjects and no formal testing.
- Integration of environmental education with languages, mathematics and other activities in the first two years of the primary stage.
- Integration of art education, health and physical education and work education into the 'Art of Healthy and Productive Living' at the primary stage.
- Bringing mathematics closer to life up to the secondary stage and setting up a mathematics corner in the existing science laboratory for practical mathematics.
- Inclusion of games, sports, yoga, NCC, Scouting and Guiding and Red Cross under health and physical education at the upper primary and secondary stages.
- Integration of science and technology up to the secondary stage.
- Integrated thematic approach to the teaching of social sciences at the upper primary and secondary stages.

- Teaching of Samskrit as part of composite courses of Hindi and the regional languages as mother tongues at a suitable point of the primary and upper primary stages and as an additional optional subject at the secondary stage.
- Due importance to the teaching of Hindi as the official language of the country.
- Provision for teaching of foreign languages as additional options at the secondary stage depending on the demand and the infrastructure available with the schools.
- Due importance to the scholastic and co-scholastic areas by allocating adequate time for each area and adhering to it.
- Provision for development of an appropriate and effective alternative schooling system and open schooling.

Chapter 3 deals with the organisation of curriculum at the higher secondary stage, which has been covered in the *National Curriculum Framework* for the first time.

The higher secondary stage of education offers maximum challenge in many ways. Passing through the crucial years of adolescence to youth, the students can choose courses according to their needs, interests, capabilities and aptitude. They may go in for specialised academic courses or job oriented vocational courses. A large number of students after this stage may enter the world of work while some would pursue higher studies of their own choice. Hence, education at this level has to focus on knowledge, skills, attitude and entrepreneurship. In order to equip the youth to cope with the changes and challenges in life, it is essential to appropriately emphasise and carefully nurture cultural and ethical values as well.

Equity and excellence have to be given due importance. Special care has to be taken of institutions located in rural, tribal and remote areas to remove the existing disparities. At the same time, national standards in education, comparable to any international standards will have to be ensured.

Diversification of courses in the form of academic and vocational streams takes place at this stage. Flexibility in the choice of subjects and pace of learning must replace the traditional rigidity in these matters as far as possible. In both the streams, a judicious blend of foundation courses and need based elective courses is to be made available.

Mental inhibitions setting barriers between academic and vocational streams and between various traditional subject groups have to be dismantled. The Open School System can be utilised for both the streams. A symbiotic relationship between the formal system and the alternative and open learning systems will be very advantageous to the learners. Semesterisation could also be introduced in a gradual manner at this stage as it will facilitate flexibility in learning and evaluation.

Curriculum at this stage is to be organised under two streams, the Academic stream and the Vocational stream, with appropriate linkages between the two. In the Academic stream, the curriculum will comprise:

(i) the Foundation Course, consisting of language and literature, work education and health and physical education, games and sports; and (ii) Elective Courses comprising three elective subjects to be chosen from a group of the traditional subjects of study and also some new potential subjects like consumer education, legal literacy, population education, migration education, disaster management, computer science, genomics, environmental science and yoga. A second language out of the modern indian languages, Samskrit, classical languages, English (academic or specialised) and other foreign languages may also be taken up as an elective subject. The choice of the language under the Foundation Course and the Electives may be left to the learners' preference.

Vocational education has to be given a high priority at all the stages of schooling. Vocational courses at the higher secondary stage may not be rigid like the two year courses, but flexible and may be reviewed periodically. The non-formal vocational programmes with emphasis on entrepreneurship and non-traditional technologies should be geared to the needs of the out-of-school girls. To these ends, multi-entry and multi-exit modular courses of varying durations may be introduced. These programmes must meet the needs of disadvantaged groups like women, scheduled castes and scheduled tribes and physically challenged persons.

Excellence in vocational education, competency based curricula and linkages between schools and industries are important features of vocational education, which has to cater to the needs of an organised sector, service sector, rural and agro-based industries, agriculture, business and trade.

The Vocational stream will also have a strong component of Foundation Course comprising language and literature, general studies and health and physical education. The Elective courses under this stream will cover areas like agriculture, engineering and technology, business and commerce, computer application, home science, health and paramedical services and humanities.

Vocational education would require special instructional strategies. These would include training-cum-production centers of the schools, apprenticeship training and internship experience for integrating and refining knowledge and skills.

Chapter 4 covers the different parameters of the evaluation of learners' progress in a systematic way. Evaluation occupies a very significant place in the entire gamut of activities concerning teaching – learning. It involves systematic collection, analysis and interpretation of learners' progress both in scholastic and co-scholastic areas of learning to provide constant feedback about the effectiveness of course content, classroom processes and the growth of individual learners. It can be used as a powerful means of influencing the quality of school education. Evaluation has to be realistic, reliable, valid, transparent, humane and flexible in order to help proper decision-making for the betterment of the learners.

The present trend in evaluation lays too much emphasis on scholastic aspects, ignoring the co-scholastic ones. Memorisation of facts is given precedence over abilities and skills involving higher mental operations such as problem solving creative thinking etc. The real potential of children is not assessed. The fear of public examinations and the failure rate create psychological tension which percolates down and sometimes results in extreme mishaps. There is no room for diagnosis and remediation in the process. Above all, the backwash effect of examinations delimits the scope of teaching and frustrates the very concept of mastery learning by promoting selective teaching.

Evaluation needs to be profitably exploited to enhance learners' capabilities, both in scholastic and co-scholastic areas. Both formative and summative evaluation needs to be used in good harmony. While the former can be utilised for organising remedial measures for the weak learners and enrichment interventions for the bright ones, the later can help in classification, placement and promotion of all the learners. These can be pitched at three levels, self referenced, criterion referenced and norm referenced. The ultimate aim of good evaluation has to be to help

the all-round development of students, personality. Examinations before Class X must be replaced by school-based evaluation which will be continuous and comprehensive in character. The first public examination needs to be conducted by the boards in scholastic areas only. Again, assessment in the co-scholastic areas of learning has to be school based on the basis of which grades will be awarded.

At the pre-primary stage, formal evaluation is not at all required. It has to be formative in nature and even the remedial measures may be made to appear as a part of the learning process without making children conscious of it.

Formative evaluation needs to be continued at the primary stage with emphasis on continuity and comprehensiveness. Observation and oral techniques need to be widely used and the paper pencil tests may begin in Class III. The use of criterion referenced tests and remedial measures would help attain the level of mastery. The performance of learners will be indicated using three point absolute grading in respect of scholastic areas and three point direct grading in co-scholastic areas. Evaluation of the co-scholastic areas will be reported once in every three months. Cumulative record cards need to be put to regular use.

At the upper primary stage, apart from the oral and written tests, assignments and project work will also be included in the continuous and comprehensive evaluation process. Criterion-referenced tests will be used periodically to asses the learners' acquisition of mastery levels. Co-scholastic attributes will be assessed through observation rating scale and checklists and reported on quarterly basis. Diagnostic and remedial teaching will be a regular feature. At this stage, five-point absolute grading will be used for scholastic areas and three-point direct grading for recording progress in co-scholastic areas will continue. Self-evaluation and peer evaluation will form part of the total evaluation procedure.

Courses will be modularised for the four semesters of the secondary stage. Evaluation has to be school-based using only the continuous and comprehensive mode. Criterion referenced tests will be employed periodically. A nine-point absolute grading will be needed for evaluating progress in scholastic areas. Co-scholastic areas will be assessed through observation, check-lists and rating scales using a five-point direct grading. Cumulative record cards will be maintained. Portfolios of students will also contain their self-appraisal and peer evaluation. The

predominance of external examinations will be reduced and the practice of declaring pass and fail categories upto Class X will be discarded.

The courses at the higher secondary stage will be organised in four semesters using credit system. Evaluation of the first three semesters will be the responsibility of schools while the fourth semester examination will be conducted by the boards. This will enable students to earn credits at their own pace. Tutorials will be introduced and schools will focus on criterion referenced testing while the boards will focus on norm referenced testing.

A nine-point absolute grading will be used for school based evaluation of the scholastic aspects of learning by directly converting marks into grades. Five-point direct grading will be used for the evaluation of coscholastic areas of learning. Schools will convey to the boards the grades awarded for scholastic areas for the third semester and grades for coscholastic areas for the third and fourth semesters for their transcription on the final result card. Opportunities for improvement of grades will be made available.

With a view to maintaining standards periodic achievement surveys will be conducted at the end of every stage of school education using standardised achievement tests. The outcomes of surveys will be utilised for planning and designing appropriate interventions besides developing institutional, regional, state and national profiles. Modern technologies will also be used in evaluation as their application may help provide quicker and more reliable results.

Widespread disparity in standards of examinations among thirty-four boards conducting examinations at the end of Classes X and XII has been experienced and no common or national standards of achievement are available for equating them. This has led to multiplicity of entrance tests conducted by professional institutions in areas like engineering, medicine and management which has caused undesirable stress and strain on the minds of both students and parents besides giving rise to malpractices and wasteful expenditure. There is an urgent need to set up a national level body to act as a quality control mechanism and help in ensuring uniformity of standards. National Evaluation Organisation as recommended by the *National Policy on Education* (1986) and the *Programme of Action* (1992) needs to be established. Such an organisation will hold nation wide tests on a voluntary basis to evolve norms for comparability. It may also undertake various other functions

ranging from developmental activities to conducting research which will have direct bearing on students' evaluation. It must be a non-profit making organisation.

Chapter 5 has been devoted to the strategies of the implementation of the *National Curriculum Framework*. The curriculum framework provides directions to the educational system. Its implementation leading to the desired impact depends upon a comprehensive understanding of the framework among teachers, committed management support and strong political will and insight. Successful translation of curriculum framework into practice would require a multipronged strategy involving different agencies and ensuring the following:

- uniform educational structure of the 10+2+3 pattern with two years of pre-school experience;
- development of new generation instructional materials both in print and non-print modes;
- an effective mechanism of orientation of teachers, educational functionaries and the community;
- strengthening of the managerial and technical support systems;
- an effective monitoring mechanism with scope of inbuilt mid term corrections.

Coordinated decentralised curricula, syllabi and instructional materials with the involvement of local organisations at different levels would be helpful in responding to local needs and aspirations. Equitable importance would be given to both scholastic and co-scholastic areas while developing detailed curricular guidelines, model syllabi and competency based and process oriented materials. This will facilitate joyful self learning and self directed learning experiences in formal and alternative modes. Besides, modular packages of textbooks, workbooks and teachers' handbooks and multimedia materials and encapsulated orientation materials for parents, community and managers should be developed and adopted or adapted in all the national languages of India. Flexibility of procedures needs to be maintained at all the stages. Physical and other resources may be optionally drawn from the community and the rural and urban environments. A sound curriculum development venture requires a strong research base. The NCERT, the SCERTs and other similar organisations should encourage, sustain and carryout individual and collaborative researches and disseminate their outcomes. Capacity building needs to be attempted using the principle of positive discrimination based on the professional appraisal of institutions.

The preservice teacher education curriculum has to incorporate new concerns and issues emanating from the new curriculum framework. Besides, the integration of content and pedagogy, competencies relating to curriculum development need to be developed. This has to be reinforced through recurrent inservice training using the cascade and teleconferencing modes.

Since headmasters and principals have to play an important role as facilitators in curriculum implementation, proper induction and inservice training of such functionaries and administrators would be desirable. It will help ensure accountability and effectiveness revealed through proper monitoring mechanisms.

All the institutions engaged in teacher preparation at the elementary and secondary levels will have to be involved in all areas of curriculum development, its transaction and evaluation in a big way.

District level resource support through DIETs can be further augumented at the block and cluster levels. Networking of teacher education institutions needs to be established for proper sharing of resources for qualitative improvement. Monitoring and evaluation of teacher education programmes, preservice, inservice, lifelong and continuing education and programmes of professional growth have to be organised. Accreditation of institutions should help enhance their capacities.

Integration of Information and Communication Technologies (ICT) into schooling needs serious consideration. Teachers, educators, curriculum developers, evaluators and others will have to redefine their roles to tackle ICT rich environment and harness its full potential for the benefit of learners.

Close coordination between national and state level agencies and sectors of employment and enterpreneurship can strengthen vocational education. Linkages — both horizontal and vertical — will need to be established among them. Researches, surveys and innovations may add to the quality of vocational education. The goal of quality vocational education can be achieved by preparing and inducting quality teachers, seeking community support in terms of guest faculties and resource persons, developing appropriate skills and attitudes through transaction

of need based curricula, and using relevant teaching learning materials. Proper understanding of and acquaintance with the emerging areas of employment and enterpreneurship would also be required. Secondary schools will provide necessary information on the avenues and potentialities of vocational areas to children and parents. Pre-vocational courses would have to be initiated earlier in all the institution that offer vocational courses at the higher secondary stage. Block level training institutions will perform multiple roles by offering flexible, modular and competency based vocational courses to cater to the needs of a variety of target groups and providing resource support to the neighbouring institutions.

Value inculcation must be given due importance. While every teacher has to be a teacher of values, every activity, unit and interaction must be examined from the view point of value identification, inculcation and reinforcement so as to evolve an appropriate strategy for judicious implementation. School goals need to be clearly defined and disciplines evolved through participation of staff and students. Morning assembly in all schools should focus on value inculcation. Interesting stories about the lives and teachings of prophets, saints and sacred texts of different religions, readings from books of wisdom, essential teachings of all the major world religions and meditation may constitute a regular activity as per the levels of students. Community singing programmes, National Integration camp, NSS, NCC, games and sports, Scouting and Guiding and Red Cross may be suitably introduced. Cultural activities, plays, debates and joint celebrations should be organised on the festivals of major religious and cultural groups. The aim of value education should be to generate better understanding of each other with a view to creating a tolerant and cohesive society. Much will depend on teachers, materials and intervention strategies which need to be carefully chosen.

Learners with special needs will have to be brought into the main stream in inclusive schools where learner centred teaching, group learning, cooperative learning and peer tutoring will be emphasised. Definite action at the level of curriculum makers, teachers, writers of instructional materials and evaluation experts would be helpful in the success of the strategy. Vocational Guidance and Counselling would require additional focus. Above all, well equipped functionaries will make the effort more meaningful.

Implementation of evaluation strategies will require appropriate climate building through generating awareness about the reforms among the

masses. It should be supported by a variety of materials pertaining to various concepts, evaluation tools and approaches to be made available to the people concerned. All functionaries from teachers to managers have to be thoroughly updated and provided due support from all quarters.

Schools will have to develop their own schemes and strategies of evaluation for Classes I to XII. The boards of school education will have a supportive role to play. They may develop prototypes of evaluation materials and tools and provide them to schools. Besides, the boards may organise orientation programmes for capacity building of teachers and undertake research and disseminate the findings. State and district level agencies have to shoulder the responsibilities of assisting and guiding schools in developing appropriate instructional materials, transactional strategies and evaluation procedures.

Evaluation needs to be made a core component of preservice teacher education curricula. Inservice education of teachers must also contain a strong component of evaluation.

The national level agencies such as the NCERT, the Council of Boards of School Education and the proposed National Evaluation Organisation must devote themselves to laying down of expected levels of attainment, developing conceptual materials and tests, conducting evaluation research and achievement surveys and disseminating the outcomes.

The need for proper provision of educational and vocational guidance at the higher secondary stage is unequivocally stressed.

Qualitative improvement of school education requires strong intra sectoral and inter sectoral linkages at different levels, viz., national, state, district and local (village/block/city). Clearcut defining of goals coupled with delegation of responsibilities with accountability at all levels is the need of the hour. Task forces may be set up at state, district and local levels for ensuring better coordination among them. These task forces may have three to five year terms with autonomy of action for achieving the objectives. These will assess infrastructural needs, make plans for augumenting the resources, suggest suitable interventions and supervise, monitor and evaluate the changes as a link between the government and the community.

It is absolutely necessary to make adequate provision for the minimum essential facilities required for effective transaction of the curriculum in

all the schools and alternative schooling centers. The country has to invest six per cent of the GDP on education as promised in its five year plans.

It must be ensured that all the schools have the bare essentials for teaching-learning, such as, school building with classrooms, drinking water and toilet facilities, instructional materials and teaching aids. These may be acquired through time bound strategies involving the government, the community and the other stake holders. Adequate number of teachers may be made available without undue delays. Undisturbed teaching hours must be ensured and teachers should not be assigned extra tasks at the cost of teaching. Instructional materials should be made available as per the need. Resource support in terms of laboratories, libraries, equipment etc. is necessary not only for quality but for equity as well.

Trained subject teachers would be required right from the first year of the upper primary stage. Ail the necessary requirements would need to be met at the higher secondary stage for both the streams, academic and vocational. Above all, trained, qualified, competent and committed teachers would make curriculum implementation a success.

