

### **New paras for insertion in Chapter 4 of the SSA Frame work**

4.6 The NCF 2005 and RTE Act 2009 both point to building on the child's knowledge, potential and talent through a child centric approach. It suggests that everything we do in or for the school should be geared towards a measurable development in student's learning level and prepares them for independence of thought and action, life-long learning, democratic values, creativity and life skills.

Under SSA, the States/ UTs are expected to plan and implement interventions to ensure learning enhancement in children. These interventions can be broadly divided into three major categories: **First**, defining class wise subject wise learning outcomes/ indicators; **Second**, planning specialized programmes and interventions including monitoring mechanism and systemic reforms; and **Third**- learning assessment and evaluation of the interventions.

#### **4.6.1 Defining learning indicators for assessing essential levels of learning**

The RTE has specified that the teachers will complete the whole curriculum within specified time limit. To facilitate this process, the curriculum may be divided into various smaller units that may be subject to assessments as defined in the CCE modules of the State/ UT. This will also help the teacher provide additional support to children who require the same for achieving learning benchmarks as defined.

The teaching learning should be so phased out over the year so that by the **end of the grade the essential levels of learning as laid out in the curriculum are achieved by children** of that grade. For instance, as per learning indicators developed by NCERT the curricular expectation of a child at the end of grade third are "Counts, Recognizes, Reads and writes numerals for numbers up to 20. Adds and subtracts single digit numbers would be able to count, recognize, read and write numbers up to 20, add and subtract single digit numbers" hence the teaching learning over the year should cover lessons and activities which result in enhancement of the child's knowledge to this level.

Traditionally, learning outcomes have been built in the syllabus and textbooks. Some States have now defined grade wise learning indicators and NCERT has also developed an exemplar for guiding the States. Each States/ UTs should ideally define grade wise learning indicators as per their own syllabus. The academic authority must ensure that the text books, learning indicators and CCE module prescribed are aligned with each other. Defining learning indicators will facilitate monitoring of students' learning objectively against expected benchmarks and sharing progress of the child with parents/

guardians. It will help identify the overall performance of a school with regard to learning and teacher effectiveness.

Defined learning outcomes are a point of reference for conducting achievement surveys (e.g., NAS or NCERT). Hence, learning indicators should be measurable so that the data can be analyzed over time to see trends and correlate it to the interventions.

#### 4.6.2 Focussed programmes for ensuring learning:

**4.6.2.1** States UTs are expected to strengthen their classroom processes in order to optimize children's learning. There needs to be a holistic plan for learning in which all components (eg: teacher training, LEP, innovation, text books, school grants, teacher grants etc) align, **to ensure that children attain essential levels of learning, which can be assessed.** Two such focused programmes are suggested below, though States may put in place similar programmes for other classes/ subjects.

#### **4.6.2.2 Foundational programme (for Classes 1 & 2) to ensure that children learn to read with comprehension, write independently and have basic mathematical skills**

Learning in Classes 1 & 2 is important for developing the ability to read with comprehension and write with a purpose. Reading is the foundation to other learning activities in the classroom. Children who fail to learn to read in the first two grades of school are likely to fall behind and not catch up with their class peers in higher grades and have difficulty in learning other subjects as well. Poor readers cannot develop proper writing skills and become self-guided learners. Reading includes the entire continuum from the stage of beginning to read to reading independently for enjoyment and for gaining new knowledge.

In order to develop math skills in the first two classes at school include activities that focus on problem solving and reasoning, number concepts, geometry and spatial sense, measurement, and patterns and relationships. Children learn important math skills through their play and routines, and need to experience a lot of doing and saying, using concrete materials that they can manipulate to learn math in the early years. Basic Math Concepts in classes 1 and 2 include the following

- Numbers and Operations
- Shapes and spatial sense
- Measurement
- Patterns
- Data handling

Any foundational programme for reading and mathematics should have the following components

1. As per the RTE Act 2009 teacher pupil ratio in the primary grades should be 1:30; it is desirable that there be **dedicated teachers for classes 1 and 2** as these are foundational grades.
2. An **appropriate instructional design** which clearly lays out the pedagogical approach to teaching of reading and mathematics. The instructional design should have a balance of oral work along with reading and writing every day. The class room activities should be planned around working with the whole class, children working in small groups as well as children getting an opportunity to work on their own. **Instruction and activities must target the child's Zone of Proximal Development (ZPD). A strong scaffolding component is critical.** The teacher helps by offering crucial support to the child to accomplish tasks by providing a sense of direction and/ or **supporting the child in the task** to make it more manageable.
3. The **instructional design of the program should ensure that children are actively engaged in meaningful learning activities.** This can include opportunities to learn by doing and experiencing, constructing knowledge, and practicing skills. Contrastingly, repeating after the teacher and copying from the board are not active engagement activities and therefore should not be used in class instruction.
4. **Adequate instruction time at school each day.** Developing early proficiency in language requires that adequate time is allocated for language in the time table. Research in reading has shown that in the early primary grades up to 300 – 400 hours (annually) should be set aside for language teaching-learning. **Dedicated time during the school day for children to practice reading is critical.** There should be dedicated time every day for reading books, in addition to textbooks. Such dedicated reading time is essential for students to practice reading, thereby increasing their positive habits of reading.
5. **A mix of oral work, reading, and writing in each class is important.** Oral work, reading, and writing are skills that support each other and are mutually reinforcing. Having a variety of activities in the classroom for each of their literacy components helps to keep students focused and on-task.
6. **A mix of individual, pair, group, and whole class discussions and activities is ideal.** Different activities require different class arrangements. Each arrangement helps to develop different skills. Using a variety of arrangements also keeps the class interesting, thereby increasing students' "time on task".
7. For an early literacy (reading and mathematics) programme classrooms **there must be reading corners / classroom libraries** that contain a variety reading materials of varying genres and of varying reading levels so that it can be used for instruction and independent reading. For mathematics there must be a collection of locally available material like stones, seeds, leaves, beads, twigs, bottle caps etc which can be used for doing problem solving activities.
8. **Print-rich and attractive classrooms are important to encourage reading and learning.** For many children, their world outside the classroom is print-poor and therefore does not expose them to many literacy materials (e.g. children's magazines, charts with children's names, sign boards, written instruction placed on class walls, poem posters, pamphlets etc.) the print material displayed in

class must be used by teachers in their instruction. It is important that all print material for children is placed in the classroom at the eye level of children and is also changed regularly. Teachers must ensure that they provide space in the classroom where children's work (scribbling, drawing, and writing) is displayed. This motivates children and encourages them to attempt independent writing. Activities like children sharing their experience every morning or "show and tell", and one of the statement is written on the blackboard as "Aajkibaat".

9. **Additional support to children who are falling behind** the rest of the class is necessary during the year. Teachers, based on the continuous comprehensive evaluation of students should identify those children who need additional practice. Alongside it is desirable that at the beginning of the new academic session, generally after a long vacation, revision of previously taught areas are revised in class.
10. Teacher **professional development should be ongoing and planned over a long term** period. Ongoing professional development – when accompanied by ongoing on-site support increases the likelihood that new skills and practices are sustained.
11. The **CRC's/ BRP's need to play a critical role in providing academic support** to the teachers. Their support can be classified into five areas of instructional support for teachers: 1. Discuss the theoretical framework based on which the programme is designed; 2. demonstration of activities; 3. observation of teachers in the class; 4. feedback and reflection about instruction, and 5. supporting collaboration among teachers. At monthly meetings there could be practice of examining samples of student work and assessment data of students. Discussions on these information could help teachers in developing their plans for classroom instruction
12. The **school leadership needs to provide a supportive environment to the teachers and students** while also holding teachers accountable to ensure that children show progress in learning. School principals should ensure that teachers regularly share progress of children with parents this could be through community based events or meetings at the school level, creating an educational partnership between the school and the home.
13. From the **state level there should be clearly defined learning goals/ outcomes/ indicators**. Teachers, education administrators, teacher trainers should all be working towards ensuring that classroom processes and resources are targeted towards children achieving these outcomes. Alongside there must be a system of monitoring progress toward the specified goals.
14. The programme intervention should have an aligned component of research and assessment/ evaluation. Through external agencies, States/ UT's should be assessing, for improvements in student learning. The effectiveness of the various components of the programme should be researched and evaluated in order to make necessary improvements / corrections.

**4.6.2.3 Mathematics & Science at upper primary level-** a focused programme for science and mathematics at upper primary needs to be designed with the belief that every child can and should learn science and mathematics. A consolidation of basic

concepts and skills learnt at primary school is necessary as an initial step at the upper primary level. To enhance learning levels in Mathematics and Science, a focused programme can be woven using components like teacher training, school grants, LEP etc along with a conscious shift in pedagogy. Computer aided learning facilities should be optimized for science and mathematics teaching learning. The pedagogical changes should bring in everyday experiences of children, hands on activities/ experiments using local resources, meaningful investigations, field studies and group activities to make learning of maths and science meaningful.

Since both the subjects at this stage involve concepts having elements of abstraction and yet have a linkage to daily life, mapping of exemplar support activities for the text books may be done by the academic authority . This can be disseminated through teacher training, while at the same time encouraging the teachers to innovate and share through the regular set up of meetings at BRCs and CRCs. Additional interventions for instance, using community as a resource, promotion of science clubs etc. can be used to reinforce teaching of lessons/ concepts that maybe perceived as difficult by use of text books alone.

Apart from completing the syllabus, teachers should flexibly build in time for students to practice problem solving and revise concepts till they are **grasped**. Monitoring of the practice and reinforcement sessions will need to be specified to ensure effective outcomes of the programme.

#### **4.6.3 State Level Assessment Surveys (SLAS)**

Adequate monitoring mechanisms need to be put in place to support all efforts addressing student learning. Presently assessments on learning levels are well established at two levels: The NAS of NCERT at national level provides a snap shot of students learning achievements in different States. Through the CCE at school level teachers track the learning progress of students at regular intervals. The SLAS should be institutionalized at the State level with the following objectives:

1. To enable States to evaluate the learning levels on their own and track them over time and assess regional/ social group variations.
2. The assessments and evaluations should feed into both planning and improvement of implementation of all educational programs. Hence the main difference from NAS is that this will have to be quicker and also diagnostic. For instance a State level assessment may be able to pin point the specific problems/ bottle neck in learning of a particular item (like say fractions in Maths) in achieving class wise competencies in a subject, so as to initiate teacher training/ redoing that item in text books etc. or it can be used to point out areas/ regions which need teacher training to reinforce a particular topic. The analysis of the assessment should essentially lead/ point to areas of strength and weakness in

learning levels across districts/ blocks etc and will lead to changes/ focus on policy, planning and implementation of the program.

3. The State level assessments should also be able to help States in doing quick check of impact of any new intervention / pedagogy tried by the State.

For such diagnostic assessments local capacities will have to be built as these assessments will incrementally improve systems and will themselves evolve over time. Hence giving it to any agency as a turn-key project will not result in capacity building sufficiently to enable States to run assessments on their own. Capacity building will involve creating State level institutional teams of Statisticians, Pedagogy, Psychometrics and Planning persons.

For deciding the technical details of the SALS, NCERT's NAS and its methodology must be considered the guiding principle. However, States/ UTs are free to choose the classes and periodicity of assessment. The analysis of SLAS should essentially feed into the State's annual planning process for AWP & B.

Para 4.6 would be change as Para 4.7